

87th Congress }
2d Session }

JOINT COMMITTEE PRINT

FACTORS AFFECTING THE UNITED STATES
BALANCE OF PAYMENTS

COMPILATION OF STUDIES

PREPARED FOR THE

SUBCOMMITTEE ON INTERNATIONAL
EXCHANGE AND PAYMENTS

OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES



Printed for the use of the Joint Economic Committee

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LETTERS OF TRANSMITTAL

DECEMBER 15, 1962.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress is a compendium of the studies prepared for the consideration of our Subcommittee on International Exchange and Payments in connection with its study and hearings on the "Factors Affecting the United States Balance of Payments."

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

DECEMBER 14, 1962.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith is a compendium of the studies on "Factors Affecting the United States Balance of Payments" which have been prepared for our subcommittee by experts from Government, the universities, and research organizations. The compilation consists of seven parts, each of them containing several papers. Materials were released as received from the authors in advance of the subcommittee's hearings in accordance with the Joint Economic Committee's practice of providing members of the committee and the participating panelists the opportunity of examining thoroughly the analyses in preparation for the discussion at public hearings, which were held on December 12, 13, and 14. The subcommittee feels that these papers as a whole are so significant in explaining the elements which have thrust the balance of payments into the forefront in the determination of U.S. international monetary policy that they should be made available in this form for the use of the committee, other Members of Congress, and all others concerned with the outlook and problems of the balance of payments and international financial arrangements.

Sincerely,

HENRY S. REUSS,
*Chairman, Subcommittee on International Exchange and
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87th Congress }
2d Session }

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BALANCE OF PAYMENTS

MATERIALS PREPARED FOR THE
SUBCOMMITTEE ON INTERNATIONAL
EXCHANGE AND PAYMENTS
OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

Part 1
THE COMPETITIVE POSITION
OF THE UNITED STATES



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LETTERS OF TRANSMITTAL

NOVEMBER 14, 1962.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress are four in a series of papers prepared by outside consultants for the consideration of our Subcommittee on International Exchange and Payments in connection with its study of "Factors Affecting the United States Balance of Payments."

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

NOVEMBER 13, 1962.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith are four in a series of study papers assembled by the Subcommittee on International Exchange and Payments on the general subject of "Factors Affecting the United States Balance of Payments."

The papers in the series, prepared by experts from Government, the universities, and research organizations, are a part of the subcommittee's broadly based study of the need and means for reducing the deficit in the U.S. balance of payments, as well as appraising the opportunities for international trade and payments cooperation and the usefulness of a policy of relatively high domestic interest rates in stemming the recent dollar outflow.

The materials are presented in advance of the subcommittee's hearings in accordance with the Joint Economic Committee practice of providing members of the committee and the participating panelists an opportunity to examine thoroughly the analyses in preparation for discussions at public hearings.

Prof. Don Humphrey of the Fletcher School of Law and Diplomacy, Tufts University, has been acting as a consultant to the subcommittee and has had major staff responsibility in arranging for these expert study papers and in planning the subcommittee's study.

Sincerely,

HENRY S. REUSS,
Chairman, Subcommittee on International Exchange and Payments.

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THE U.S. BALANCE OF PAYMENTS: THE PROBLEM AND
ITS SOLUTION

By
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THE U.S. BALANCE OF PAYMENTS: THE PROBLEM AND ITS SOLUTION

1. U.S. DEFICITS, 1957-61

Even as late as 1957, the general concern was over dollar shortage, not dollar saturation, the phenomenon troubling the United States and especially since 1958. This was true even though the U.S. balance-of-payments deficit averaged \$1.4 billion during the 5 years 1952-56. There was a small surplus in 1957 due to the Suez situation and other special factors. The change in the situation after 1957 is evident in much larger deficits as measured by changes in short-term and liquid liabilities to foreigners and losses of monetary gold stocks (and convertible currencies).

Size of deficits so measured

[Millions]			
1958	----- \$3, 477	1960	----- \$3, 929
1959	----- 3, 826	1961	----- 2, 454

Source: Department of Commerce.

2. DEFICITS, 1950-57

Even before 1958, the United States was experiencing deficits. Thus in the years 1950-57, the rise of short-term and liquid liabilities to foreigners was \$8.4 billion and the loss of gold by the United States \$1.7 billion. Liquid dollar liabilities of the United States rose each year from 1950 to 1957 and gold went out in 4 years and came in net in 4 years. This deficit of about \$10 billion in the 8 years 1950-57 reflected the relative strengthening of other currencies vis-a-vis the dollar and the recovery from the postwar lows in the condition of foreign economies. Western Europe and some other countries were now able not only to purchase minimum imports abroad, but their competitive position had improved sufficiently so that they could afford to accumulate dollars.

3. DISTRIBUTION OF GAINS OF RESERVES ABROAD

Over the years 1951 to the end of 1961 or early 1962, the total of official gold and foreign exchange held abroad increased by more than \$12 billion. In this period the United States lost \$6 billion of reserves. Of course, inclusive of the rise of short-term liabilities to foreign authorities, the transfers from the United States were much more serious. The gains, at the expense of the United States and from new gold becoming available for monetary use, were concentrated in Continental Europe, with net accretions of about \$16 billion in gold, dollars and other foreign exchange. The United Kingdom gained about \$1 billion. For the rest of the world the net change was very small compared to the large gains of Western Europe. Clearly the economic position of Western Europe, as revealed by the gains

of gold and foreign exchange, had been greatly strengthened. Even when allowance is made for the worldwide economic assistance and military outlays abroad by the United States, Continental European gains are large indeed—certainly since 1957, when the net gains for this area were about \$9 billion. Expenditures of the U.S. Government in Western Europe and private net capital movements contributed substantially to Europe's surplus in these years.

In general it is not clear that the redistribution of reserves has provided adequate liquidity for all—the United Kingdom and most underdeveloped countries are short of reserves—but we must allow for the fact that the latter tend to use up all but minimum reserves, and that the United Kingdom has had difficulty in earning and holding additional reserves.

In this period of about 10 years, Continental Europe accepted two-thirds of its surplus in gold and one-third in foreign exchange. (These are official figures.) For the years 1957–61 the net rise of reserves for Western Europe per year was about 40 percent larger than the average for the whole period 1951–61, and more than twice the net surplus of 1951 to 1957 per year.

For individual countries, the greatest strength is revealed by Germany (a rise of \$5.5 billion in official gold and foreign exchange), Italy (\$2,650 million), France (\$2,600 million), The Netherlands (1,200 million), Switzerland (\$1 billion). The significance of the threat to U.S. gold supplies given by the distribution of the surpluses is suggested by the following:

4. CONVERSION OF DOLLAR BALANCES INTO GOLD

Confidence in the dollar is often related to the extent to which foreign interests with an accumulation of dollars hold on to the dollars or convert them into gold. Where conversion into gold is large, then that may suggest lack of confidence in the dollar. Or it may result from the differences in gold-holding policies of the countries which are in surplus at the time.

The percentage of overall U.S. payments deficit taken in gold was as follows:

1950–57.....	17	1960.....	43
1958.....	64	1961.....	35
1959.....	20		

These figures may reflect declining confidence in 1958 and 1960 and a restoration in 1961. But the problem is not as simple as this. In part the drain of gold depends on the distribution of the favorable accounts with the United States. The British, for example, traditionally convert dollars into gold. Thus in 1958, \$900 million of total U.S. gold losses of \$2,275 million of gold was taken by the United Kingdom though the United Kingdom had only about one-sixth of the world's gold exclusive of the USA and the IMF.

One should not conclude from past statistics on the use of resources in the United States associated with a favorable balance that the countries that accumulated dollars rather than gold had a greater faith in the dollar than those countries that converted into gold. First, some countries automatically converted most of their official dollar receipts into gold. Secondly, there has been a substantial disparity

between the gold purchasers and the gold retainers. For example, from 1950-61 the United Kingdom bought \$2.6 billion in gold from the United States but gained less than \$1 billion in gold reserves in that period. Germany bought \$433 million from the United States and gained \$3.7 billion in gold. France and Italy each gained about \$1 billion more than they bought from the United States.

As mentioned earlier, traditional practices are relevant as well as the distribution of liquid assets between private and official holders. Very large *relative* takings in foreign exchange by the United Kingdom in 1951-61 vis-a-vis total gains of gold and exchange might suggest that the British had repudiated her usual policy of converting dollars into gold. A more likely interpretation is that the accumulation of dollars in 1961 reflected Euro-dollar gains by third countries which are reported as United States liabilities to the United Kingdom. The table below, *with these limitations* might, on the surface, suggest degrees of confidence in the dollar from high to low—United Kingdom, France, Switzerland, and Germany. Moreover, the big net purchaser of gold from the United States in 1961 was the United Kingdom which bought about \$300 million. The United Kingdom lost this \$300 million and an estimated additional \$500 million to other countries. France and Germany together bought only \$23 million in gold from the United States in 1961 but gained about \$1,175 million. The German losses of dollars were smaller than their debt prepayments to the United States and the United Kingdom. Switzerland gained twice as much gold from non-U.S. sources in 1961 as from the United States.

Accumulation (decumulation) of dollars and withdrawal of gold, December 1960 to December 1961

[Millions of dollars]

	Gold	Dollars
World, exclusive of IMF.....	+1,800	+1,200
France.....	480	+470
Germany.....	700	-600
Switzerland.....	400	+200
United Kingdom.....	Minor change	+550

5. WHY THE CONCERN FOR THE BALANCE OF PAYMENTS?

Over most of the period since 1914 the United States has had no serious balance-of-payments problem. The country generally did not have to be concerned over the rate of domestic expansion (or contraction) because of the adverse effects on the balance of payments and gold reserves. Its major problem was to make an adequate supply of dollars available to our friends for security purposes or (and) help them recover from war or advance their economic development. But especially since 1958, this country has joined the society of nations in the sense that we, like others, have to consider the effects on the external value of our currency of domestic policies.

6. ADEQUACY OF RESERVES IN THE UNITED STATES

This country cannot afford to lose billions of reserves (inclusive of accumulation of liquid liabilities to foreigners) year after year. From 1950 through 1961, the cumulative deficit has been more than \$24 billion, of which total gold losses were about \$7½ billion.

1950-61 change
[In billions of dollars]

	1950	1961	Change (against United States)
1. Gold and foreign exchange reserves, U.S.A. accumulation of	24.6	17.1	7.5
2. Short-term and liquid liabilities to foreigners (includes international institutions).....	8.2	25.4	17.2
3. Short-term liabilities to foreigners reported by U.S. banks.....		22.6	
Total.....			24.7

Source: U.S. Treasury Dept.

These figures reveal that the gold and convertible foreign exchange reserves are not large compared to the liquid dollar liabilities, and that reserves have fallen by \$6 billion in 11 years while these liabilities have grown by over \$17 billion. What is more, the major part of the gold reserves is held against notes and deposits. It is clear that this country cannot afford to accumulate short-term debts of over \$2 billion per year as it has now for 4 years (average) for many more years. In his famous February 6, 1961 statement, the President had said:

We must now gain control of our balance-of-payments position so that we can achieve overall equilibrium in our international payments. This means that any sustained future outlay of dollars into the monetary reserves of other countries should come about only as a result of considered judgments as to the appropriate need for dollar reserves.

7. ALLEVIATIONS

The situation is not so bad as it at first seems. First, the country has a quota of more than \$4 billion with the International Monetary Fund, though less than half is assured for automatic use. However, the availability of usable currencies in the Fund on a large scale awaits the coming into effect at the special borrowing arrangements in the Fund.

Second, the United States of America has about \$50 billion of long-term private investments abroad. (To some extent these are in fact short-term.) But, for the most part, they cannot be withdrawn quickly and without loss, and they are subject to private motivations which do not normally lead to conversion into dollars to cover deficits.

Third, at the end of 1961, the banks of the United States reported \$4.7 billion of short-term claims on foreigners for their own and customers' accounts, a rise of \$2 billion in 2 years. Unfortunately, only part of these balances are in fact liquid. Undoubtedly a large part of the \$1,143 billion of short-term claims on major financial centers at the end of 1961 (United Kingdom, EEC, Switzerland, and

Canada) are reasonably liquid, but most of the remainder is not; that is, these credits have to be renewed periodically.

Fourth, the short-term and liquid liabilities of the United States of America to foreigners are not exactly convertible into gold at will. Over \$5 billion is held by international institutions, most of which do not acquire gold by conversion. Foreign interests have to keep substantial reserves here in amounts related to trade and financial transactions. Thus, of the \$8.6 billion of deposits held by foreign interests here, a substantial proportion (say 20 percent) has to be kept as compensating balances.

Fifth, the relation of these liabilities to gold reserves concerns many; but it is of some interest that the ratio is much more favorable here than for the United Kingdom, another important reserve center.

Sixth, the liquid position of this country is being strengthened by the new \$6 billion supplementary reserves, recently agreed to by the major financial centers and also by the rise of new techniques to protect the dollars—for example, borrowing in foreign markets in foreign currencies, and by a growing attitude of international financial cooperation. This cooperation has been illustrated, for example, by helpful moves in monetary policy, advance debt prepayment, emergency assistance to the United Kingdom and Canada, larger military expenditures in the United States, and in close cooperation in official operations in foreign exchange.

S. FINANCING AID AND THE MILITARY ABROAD

Given the need of large expenditures abroad for military purposes and for aid and also large capital exports, the United States must have a large volume of exports vis-a-vis imports. The excess may come from a reduction of imports or a rise of exports. Obviously, the latter is the preferable solution. Insofar as the excess of exports is not adequate to finance those items in the balance of payments, a deficit emerges in what is known as the basic deficit. If this deficit is substantial, a secondary effect on short-term capital movements may emerge with the result that the total deficit increases further.

Deficits emerge because the excess of exports of goods and services is not equal to the deficit on other major transactions. Here are the major items involved for 1960 and 1961.

U.S. balance of payments by major components,¹ seasonally adjusted

[In millions of dollars]

	1960	1961	1961				1962	
			I	II	III	IV	I	II (preliminary estimate)
Goods and services, Government assistance, and long-term capital accounts: ¹	19,459	19,915	5,061	4,768	4,940	5,146	5,068	5,350
A. 1. Nonmilitary merchandise exports.....	1,798	2,183	559	435	594	595	606	605
2. Less those financed by Government grants and capital.....								
3. Merchandise exports other than those financed by Government grants and capital.....	17,661	17,732	4,502	4,333	4,346	4,551	4,462	4,745
4. Nonmilitary merchandise imports.....	-14,723	-14,514	-3,369	-3,417	-3,840	-3,888	-3,914	-----
5. Balance on trade, excluding exports financed by Government grants and capital.....	2,938	3,218	1,133	916	506	663	548	-----
6. Nonmilitary service exports.....	7,219	7,745	1,937	1,910	1,863	2,035	2,095	-----
7. Less those financed by Government grants and capital.....	322	391	86	92	105	108	120	-----
8. Service exports, other than those financed by Government grants and capital.....	6,897	7,354	1,851	1,818	1,758	1,927	1,975	-----
9. Nonmilitary service imports.....	-5,417	-5,462	-1,309	-1,337	-1,388	-1,428	-1,376	-----
10. Balance on services, other than those rendered under Government grants and capital.....	1,480	1,892	542	481	370	499	599	-----
11. Balance.....	4,418	5,110	1,675	1,397	876	1,162	1,147	-----
B. Other major transactions:								
1. Military expenditures.....	-3,048	-2,947	-770	-756	-699	-722	-755	-----
2. Military cash receipts.....	336	398	66	150	87	95	215	-----
3. Government grants and capital—dollar payments to foreign countries and international institutions.....	-1,235	-1,283	-302	-254	-303	-424	-289	-----
4. Repayments on U.S. Government loans, excluding fundings by new loans.....	585	1,199	123	828	59	189	131	-----
5. U.S. direct and long-term portfolio investments abroad ²	-2,544	-2,481	-577	-487	-623	-794	-676	-----
6. Foreign direct and long-term portfolio investments in the United States.....	430	466	122	201	20	123	153	-----
7. Remittances and pensions.....	-842	-878	-221	-221	-216	-220	-218	-----
8. Balance.....	-6,318	-5,526	-1,559	-539	-1,675	-1,753	-1,439	-----
C. Balance on goods and services, Government assistance, and long-term capital account.....	-1,900	-416	116	858	-799	-591	-292	-----
D. Recorded U.S. private short-term capital outflow less foreign short-term credits to the United States (excluding foreign liquid dollar holdings).....	-1,433	-1,443	-406	-316	-304	-417	-401	-----
E. Unrecorded transactions.....	-592	-602	-29	-366	193	-400	217	-----

F. 1.	Overall balance, seasonally adjusted.....	-3,925	-2,461	-319	176	-910	-1,408	-476
2.	Less seasonal adjustment.....			11	-87	-1	75	-11
G. 1.	Overall balance, actual (not seasonally adjusted) ¹	-3,925	-2,461	-308	89	-909	-1,333	-465
2.	Equals: Changes in liquid liabilities to foreign private holders, including banks and nonmonetary international and regional institutions.....	-361	-1,202	74	-570	-234	-472	-584
3.	Plus: Changes of holdings of gold and convertible currencies by U.S. monetary authorities and changes in U.S. liquid liabilities to foreign and international monetary authorities.....	-3,564	-1,259	-382	659	-675	-861	119

¹ Excludes military transfers under grants.

² Short-term capital movements between parent companies and their foreign affiliates are reported as part of direct investment.

³ Increase in U.S. liabilities and sales of gold (-).

10 FACTORS AFFECTING THE U.S. BALANCE OF PAYMENTS

9. IMPROVEMENT IN 1961

This table reveals that the basic deficit in 1961 declined by more than three-fourths (\$1,900 to \$416 million) and the overall balance by 40 percent (\$3,925 to \$2,461 million). Improvement in exports or short-term capital movements was small though the proportion of capital used to finance trade rather than in response to speculative influences greatly increased.

Recent figures reveal further improvements in exports for the first half of 1962 (\$10.4 billion as against \$8.8 billion in the corresponding period in 1961). The President announced in a recent press release that the deficit for the first half of 1962 was running at the annual rate of only \$1.5 billion.

With continued deficits of substantial amounts, government and business seek (1) to contain the rise of prices and costs and partly through increases of productivity; (2) to put a larger part of the burden of defense and aid on countries with surpluses in their balance of payments; and (3) divert purchases under defense and aid programs to the United States. (Higher costs are offset by savings on balance-of-payment deficits.)

Thus in 1960 and 1961:

{Millions}

	1960	1961
1. Government grants and capital outflow.....	\$3,381	\$4,100
2. Involving dollar payments to foreign countries and international institutions.....	\$1,251	\$1,310
3. Percent (2) to (1).....	37	32

A conscious effort is being made to divert expenditures to the U.S. markets, thus strengthening the balance of payments. Note the improvement from 1960 to 1961. The pace of improvement is limited by the time required to change sources of supply, and in particular the restraints placed by existing contracts.

In his report to the President on the balance of payments of March 26, 1962, the Secretary of the Treasury said:

*** Expenditures for defense purposes overseas were close to \$3 billion in 1961. It is expected that our total sales of military equipment and services will result in payments to the United States of more than \$1 billion this year. ***

*** Roughly two-thirds of the funds expended for all our foreign economic assistance programs in 1961 (including foreign currency sales of agricultural surpluses) were initially utilized for expenditures in the United States. The portion spent in this country will increase as procurement orders under present directors become more fully reflected in our balance of payments. ***

10. REDUCTION OF FOREIGN CURRENCY COSTS OF DEFENSE

On July 16, 1962, Secretary of Defense Robert McNamara announced vigorous measures—

to reduce U.S. gross defense expenditures entering the international balance of payments, which have been averaging approximately \$3 billion a year. Approximately \$2 billion is spent in NATO countries, principally in Germany, France, Italy and the United Kingdom. These expenditures represent only the foreign exchange costs of maintaining U.S. forces overseas, not the budgetary cost to the United States, which is, of course, much higher.

However, because of our serious balance-of-payments problem, we must in administering these forces eliminate all nonessential foreign exchange costs from defense expenditures. Accordingly, a prime objective of the Department of Defense has been to reduce the net adverse effect of U.S. defense expenditures entering the international balance of payments by \$1 billion between fiscal years 1961 and 1963. Present indications are that this objective will be achieved. The net adverse balance was \$2.6 billion in fiscal year 1961 and it is estimated that this will be reduced to \$1.6 billion in fiscal year 1963.

Achievement of the \$1 billion reduction has been helped by the agreement with the Federal Republic of Germany by which the United States provides a cooperative logistics system for the armed forces of both countries and the Federal Republic of Germany will increase the level of military procurement in the United States and utilize American supply lines, depots, and maintenance and support facilities to fully offset the foreign exchange costs of maintaining our forces in Germany for a 2-year period.

During the past year and a half, a series of actions has been instituted to reduce U.S. defense expenditures entering the international balance of payments. These measures include—

(a) A voluntary savings program for reduction of individual expenditures. Military and civilian personnel and their dependents have been urged to reduce their personal expenditures overseas, to channel their family expenditures to U.S. sources and their savings into U.S. savings bonds and other American securities or savings institutions.

(b) Procurement of goods abroad for use abroad has been returned to the United States when it is estimated that the cost of U.S. supplies and services (including transportation and handling costs) will not exceed the cost of foreign supplies and services by more than 25 percent. Reports for calendar year 1961 indicate that approximately \$71.4 million of procurement contracts which would have otherwise been placed abroad were returned to the United States during this period. The additional cost of placing the \$71.4 million of procurement contracts in the United States was approximately \$10.4 million or about 17 percent higher than the estimated cost of procurement from foreign sources. During the first quarter of calendar year 1962, approximately \$11 million of additional procurement contracts were returned to the United States at an added cost of about \$1.6 million.

(c) The 25-percent differential applicable to military functions appropriations has also been applied to the military assistance offshore procurement program. It is estimated that MAP/OSP expenditures were reduced by approximately \$25 million during calendar year 1961.

(d) A comprehensive review of the requirements for each of our foreign military bases and installations occupied by U.S. military services has been undertaken. As a part of this overall review, a special study group visited selected countries in Western Europe to determine the feasibility of combined utilization of depots with our allies, as well as to ascertain the possibilities for a reduction, elimination, or consolidation of headquarters, training, and major logistical support activities.

Our objective is to reduce the Department of Defense net adverse dollar outflow entering the international balance of payments to \$1 billion by fiscal year 1966. This objective is to be achieved without reducing our combat effectiveness abroad or creating hardship for the individual serviceman or his dependents.

In order to reach our objective, we are now undertaking a further series of studies of our dollar expenditures abroad resulting from U.S. defense operations. These studies include:

1. Review the use of foreign nationals as employees at our oversea military installations to determine whether requirements can be reduced without interfering with our combat and support capability.

2. Develop a program to reduce the foreign exchange cost of oversea construction including use of techniques such as prefabricated units.

3. Develop additional programs to reduce oversea procurement of materials and supplies.

4. Develop a program to reduce expenditures for contractual services overseas, including expenditures for repairs, alterations, maintenance, etc.

5. Review dollar expenditures overseas associated with the military assistance program and investigate ways in which they may be reduced.

6. Develop means for expanding the present credit sales program in order to further offset our expenditures overseas.

7. Discuss with other countries methods for offsetting foreign exchange costs of maintaining U.S. forces in the countries concerned. It is believed that this approach offers the most equitable way in which we can further reduce the net foreign exchange cost of our forces stationed overseas. In addition, through such agreements, our allies can strengthen their own military forces at a minimum cost, thus, building up both the military and economic defenses of the free world.

11. THERAPY IN 1961

Developments in 1961 were clearly more favorable than in 1960. Vigorous measures taken by the Government were helpful. Both in and out of Government there were demands for more aggressive measures. In particular, some experts urged more radical approaches to an increase in liquidity than were actually undertaken. These unorthodox proposals were not acceptable for various reasons:

1. The surplus countries made it clear that they were strongly opposed to such proposals, which were therefore not a practical possibility.

2. It was deemed wise to try more modest and practical measures and the IMF borrowing arrangements were concluded after months of hard and persistent negotiations.

3. There was a fear, very strong in continental Europe, that transfers of deposits to an international agency would result in a deterioration of assets as loans were made to underdeveloped countries with these deposits.

4. Many were fearful that large additions to liquidity would remove the incentive for maintaining costs and prices at a competitive level.

5. Progress is being made in reducing the overall deficit under the President's program.

12. ANALYSIS OF GAINS OF 1961-62

The improvement in 1961 was welcome. But we should not be overly enthusiastic about the gains of 1961, first, because the trend was unfavorable as the year progressed, and second, because the deficits would have been much larger had not repayments of Government loans been substantial, had not imports been kept down in the first half year as a result of the recession, had not the United States profited from a revaluation of the deutsche mark (a potential depreciation of the dollar), and from the generally highly prosperous conditions in Europe, and from greater trade relaxations abroad.

By the fourth quarter of 1961, the overall deficit was running at the annual rate of \$5.6 billion per year, a high rate explained in substantial part by special capital transactions. But the first quarter of 1962 showed a great improvement with an overall deficit running at the rate of \$1.7 billion. Preliminary indications suggest an overall deficit at the rate of only about \$1.5 billion for the first half of 1962.

13. WAGES, PRODUCTIVITY, AND PRICES

A favorable factor in 1962 (and 1963) may well be rising wage rates and pressure on capacity abroad. The large gains of Western Europe were in rising productivity, a development associated with the large influx of American capital, techniques, and management, the growth of the Common Market, and the declining unit costs that accompanied the growth of the size of operations. Other factors include large domestic capital investment, much lower unit costs of labor than in the United States, slow growth in domestic consumption, and protection of agriculture and coal. In considerable part the changes in relative shares of the world export markets reflect continual progress in recapturing markets by Germany, Italy, and Japan.

One effect of these trends has been a clear reduction in the share of U.S. exports of manufactured goods. In the 1950's this share seems to have fallen by about 20 percent, a fact explained by improved competitive position for Western Europe and Japan. The losses of the United States are related also to the fact that her favored markets (e.g., Canada, Latin America) have not been growing as rapidly as other markets, e.g., Western Europe.

In the next year or two much will depend upon wage policy. Moderation here and substantial rises abroad may well weaken the competitive position of Western Europe and Japan. Moreover, the lift given these countries by the almost revolutionary changes in the volume of operations is likely to be less strong. Indeed the growth and development of the Common Market is likely to strengthen the bargaining position of Western Europe and may increase their share of export markets. At best our trade expansion program is likely to prevent serious losses of our share of the Common Market. The program is not going to mean a rise of our share of export markets. At best it will maintain our exports and our share of a rising volume of exports.

On the details of wage rates this much may be said. Wages tended to rise more abroad than here since 1953. Thus Richard Cooper shows increases as follows:

Percent rise, hourly earnings in manufacturing, 1953-59 .

France.....	13	United Kingdom.....	42
West Germany.....	48	Japan.....	36
Italy.....	27	United States.....	25

Source: S. E. Harris, editor, "The Dollar in Crisis," 1961, p. 152.

Here are the trends from 1960 to 1961 and the first quarter of 1961 to the last quarter of 1961. Germany and Japan in particular seem to be experiencing substantial wage inflation of late.

Percent rise, wages

	1960 to 1961	First quarter 1961 to last quarter 1961
Germany.....	11	9
Italy.....	4	4
United Kingdom.....	4	2
Japan.....	7	14
United States.....	3	2

Source: IMF, "International Monetary Statistics and Economic Report of the President, 1962."

A more recent study (1962) by the IMF shows increases of wage rates in the last 4 years as follows: United States, 13 percent; Italy, 77 percent; West Germany, 37 percent; France, 35 percent; Sweden, 25 percent.

Rising wages (relatively) not offset by corresponding improvements in productivity suggest the classical solution to an adverse balance of payments—restraint in the country incurring deficits and losing reserves, with rising reserves, money expenditures, and wages for the country experiencing surpluses in the balance of payments. In the past there have been restraints on factors tending to raise prices in the surplus countries, e.g., control of wages. In the United States, it was not possible to contain monetary supplies and spending in response to loss of reserves, first because of the need of treating the large amount of unemployment, and second, because of the growth requirements.

Wage increases in Europe will undoubtedly contribute toward an improved balance of payments for the United States, and especially with continued pressure from the White House to exclude rises in wages (and prices) not supportable by productivity trends.

But one also has to take account of the rising relative productivity trends in Western Europe and Japan. The gap in net output per man-hour of manufacturing in 1959, according to Richard Cooper was as follows:

Net output per man-hour in manufacturing, 1959

United States.....	\$3.89	Japan.....	\$0.40
Germany, Federal Republic.....	.96	United Kingdom.....	.97
Italy.....	.96		

This gap may gradually be narrowed though at current rates, it would, according to Cooper, require 90 years for the gap to disappear.¹ Yet there are many reasons why this gap should be reduced appreciably year after year. The large inflow of capital into Europe, the great technical advances, the Common Market with increased productivity related to output increasingly allocated on comparative cost principles and the rise in the size of the market, improved balance of payments, and less need of restrictive monetary and fiscal policies. The final result will also depend upon how our competitors and the United States take their gain of productivity. If Europe prefers the route of falling prices and the United States rising income, then the losses of markets for the United States at home and abroad will be a maximum. It is imperative that we do not take all our gains in rising incomes and also that some of our backward industries come alive again.

¹ The American Assembly, "Automation and Technological Change," edited by J. T. Dunlop. Ch. 8, "International Aspects," by R. N. Cooper.

14. DETAILS OF BALANCE: MAJOR FACTORS IN THE IMPROVEMENT OF
1961

	<i>Million</i>
Reduction of deficit-----	<u>\$1,475</u>
On goods, services, remittances and pensions-----	1,242
On direct and long-term portfolio investments-----	114
On short-term investments-----	163
Unrecorded transactions-----	32
Total-----	<u>1,556</u>
Government grants and capital-----	-81
Total-----	<u>1,475</u>
Major items:	
Favorable:	
Repayments on U.S. Government loans, rise-----	638
Income on investments, private, rise-----	428
Imports of foreign capital other than liquid funds, rise-----	377
Imports of merchandise and military expenditures, reduction---	290
Exports of merchandise and military sales, rise-----	578
Subtotal-----	<u>2,311</u>
Adverse:	
Government grants and capital outflows, rise-----	719
U.S. private capital exported, rise-----	95
Subtotal-----	<u>814</u>
Net-----	<u>1,497</u>

Source: Survey of Current Business, March 1962.

This table reveals improvement in 1961; but some of the gains are not necessarily sustainable. Thus a favorable factor was \$638 million of repayment on U.S. Government loans. Imports of foreign capital other than liquid funds (\$377 million) reflect the relative improvement in the economic situation here and the stock market boom of 1961 (a rise of 16 percent in 1961). A large increase of income on private investment of \$428 million may also be associated with the unusual economic conditions abroad, but basically reflects the long-term trend in this item.

What is crucial is of course the response of exports and imports. The reduction in the deficit related to a rise of exports was \$578 million (merchandise and military items) and to a fall in imports, \$290 million. In relation to the total improvement, there are sizable items. But note that Government grants and capital outflow (a deficit item) rose by \$719 million. Thus against a rise of merchandise exports of \$507 million, there was an increase of \$504 million financed by Government grants and capital—in other words a net yield of reserves associated with rising exports of but \$3 million. Again, the rise of Government grants and capital outflows of \$719 million was not as costly as it might have been to the balance of payments because there was an offsetting item, a rise of transactions involving no immediate dollar outflow from the United States of \$660 million. In other words, the Government was careful to use the additional dollars made available to purchase in the United States.

15. REGIONAL TRENDS, 1960 TO 1961

Column (1) of the table below shows the balance of goods and services exclusive of transfers under military grants. (*All figures are changes by percentages.*)

Percent changes 1960 to 1961, U.S. balance of payments

	Various items, by regions		U.S. capital private net exports	U.S. capital Government net	Foreign capital net (increase in U.S. liabilities)	Loss of gold and convertible currencies and rise U.S. liquid liabilities	U.S. loss of gold and con- vertible currencies
	Balance goods and services exclusive transfers under mili- tary grants	Unilateral transfers net to foreign countries excluding military transfers					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
All.....	+32	+10	+3	-14	-9	-37	-56
Western Europe.....	+81	+6	-30	+319	+77	-23	-63
Canada.....	-12	-2	+11	-----	+75	+75	-----
Latin America.....	+52	+27	+187	+366	(1)	+433	+9
All other.....	+31	+12	+81	-15	(2)	(3)	-27
(Area).....	-29	+15	-53	-35	(4)	-27	-40
International institutions.....	-----	-----	-----	-----	(5)	-90	-58

¹ Net gain \$204,000,000 (-38 to +166).

² From net imports of \$427,000,000 (+) to exports of \$25,000,000 (-).

³ Net gain \$515,000,000 (+) to loss of \$58,000,000 (-).

⁴ No change.

⁵ Net imports of \$1,035,000,000 to \$201,000,000.

Source: Survey of Current Business, June 1962, pp. 16-17.

The United States gained in its current balance especially from transactions with Western Europe, Latin America and all other, but lost vis-a-vis the sterling area (part of all other) and Canada. The prosperity in Western Europe is a relevant explanation as is the aid made available to Latin America.

Unilateral aid (exclusive of military), as might be expected (col. 2) moved especially in the direction of Latin America and all other, that is to the underdeveloped areas. Similar conclusions relate to column 3, "U.S. Capital Private, Net Exports." Western Europe experienced a substantial decline while Latin America had a very large gain and all other a large advance. (But the flow of capital to the sterling area, part of all other, was clearly downward. Apparently greater responsibilities to finance these countries were put elsewhere.)

But U.S. capital, Government, (col. 4) went in much larger amounts to both Western Europe and Latin America, and less to other areas.

The inflow of capital into the U.S. net (col. 5) tended to decline; but relative inflow increased from Canada, Latin America, and Western Europe in that order. But, of the areas increasing their exports of capital to the United States, Western Europe made by far the largest contribution.

Deficits (col. 6) declined substantially vis-a-vis Western Europe, all other (inclusive of the sterling area). But vis-a-vis Latin America there was a very large increase of deficits and a substantial one vis-a-vis Canada—as measured by loss of gold and rise of short-term liabilities. These results may point to competitive gains vis-a-vis Western Europe, though special capital transactions are relevant. Losses of

reserves to underdeveloped countries were undoubtedly tied to aid programs.

Column 7 reveals the same trends; but also shows that Western Europe and the sterling area were relatively more content in 1961 to accumulate dollars than convert to gold, and Canada and Latin America to accumulate dollars almost exclusively rather than to withdraw gold.

16. PROSPECTS

It is indeed difficult to be precise on the future balance of payments. The year 1961 was clearly an improvement on 1960, and the first half of 1962 reassuring compared to the last quarter of 1961. (Annual rates of \$6 billion deficit in the last quarter of 1961 as against less than \$1,500 millions in the first half of 1962). Those who are optimistic about forecasts should be reminded of the disappointments in the latter part of 1961 and the failure of virtually all economists (including the writer), to sense the changeover from dollar scarcity to dollar saturation which was gradually emerging in the 1950's.

Perhaps the most useful approach here is to comment on the factors that may bring a net improvement or deterioration in the next few years.

A continued greater high rate of growth in Western Europe and Japan will tend to increase imports and reduce exports for these countries. This position holds even if it is admitted that Western Europe profited from both rapid growth and satisfactory surpluses in their balance of payments in recent years. This unusual association may be explained both by defense expenditures by the United States abroad and the unusual rate of rise of productivity in Europe brought on by a concatenation of forces (e.g., the growth of markets and the size of the firm, the inflow of foreign capital during the Marshall plan and later and accompanying technological advances that are not likely to be continued at recent rates in the future, and the shift to more productive industries).

Evidence of rising wage inflation in Western Europe is another favorable factor for the United States of America. This wage inflation is related to the continued growth of monetary reserves, increasingly difficult to neutralize, and the growing inelasticity of supplies of labor. This plus the slowdown in the rise of productivity in Europe may be favorable factors. This trend, together with the pressure of President Kennedy to hold wage rises to a level that will not yield inflation here should be favorable factors for our balance of payments.

I do not, however, wish to minimize the difficulties of the President in holding the line on wages and prices. The steel episode involving a relatively easy field to guide was most costly in terms of time and energy used up and also in antagonism aroused in business circles. Yet the administration rightly is seeking new approaches to wage and price determination which go beyond current techniques, yet falls short of controls, and guards the public interest in keeping inflation down and international accounts from deteriorating. In most wage negotiations it will be much more difficult to keep wage contracts from being inflationary (e.g., cf. the railroad wage contract of May 1962). Should a general excess of demand develop—not evident now—then pressure brought on one group of workers or industry to

rule out wage and price inflation is likely, in the absence of guidelines applied to each contract in turn, to result in inflation being diverted to the other employments.

17. ECONOMIC CONDITIONS VIS-A-VIS THE BALANCE OF PAYMENTS

A troublesome problem relates to the relative contribution to a correction of the dollar saturation of a prosperous as against a depressed economy. On classical principles one might expect rising exports and declining imports following relative declines of prices and incomes.

But it is important to distinguish periods. In the midst of recession, unit costs may be relatively high, and especially with rigid wages, for at low levels of output with much excess capacity unit costs may be high. In the first year of recovery, as output expands, unit costs fall (productivity rises) and wages tend to lag. The second year of recovery is not likely to be as favorable as the first. Output tends to rise more and some bottlenecks may develop; and wages begin to move up. But the second year's developments may still be consistent with improved balance of payments. Of course much depends upon what is happening abroad—the recovery in the United States of America is less likely to bring international deficits if rises are also being experienced abroad. But at least until the spring of 1962 it was generally assumed that the U.S. relative rate of growth was likely to exceed that abroad, or at least Europe's advantage would be reduced.

What of the third year? Here I am disposed to argue that the emergence of bottlenecks and strong pressure to get wage rates up may well be accompanied by rising deficits. There are eminent economists, however, who argue that the road to equilibrium in the balance of payments is full employment. Their position is based on the assumption that more output means more exports rather than more imports, as well as a favorable effect on capital movements—less capital out and more in because of more favorable conditions here than abroad and greater confidence in the dollar, and hence less speculative exports of short-term capital.

Much will depend upon how the improvement is brought about. If it is, for example, a Government-induced rise, it is less likely to bring an improvement reflected in large technological gains being absorbed to a substantial extent by downward pressures on prices rather than upward movements of income. The more the latter responds and the less the former, the more likely unfavorable effects on the balance of payments.

18. OTHER FAVORABLE FACTORS FOR THE UNITED STATES

Another favorable factor—not so much in improving the balance of payments—though it may indirectly discourage short-term capital exports—is the increasing range of measures taken to increase co-operation among central banks and thus adding to the liquidity of the Western nations. Undoubtedly more advances would have been made here if it were not for the fact that there was a fear held particularly by central bankers that large rises of liquidity would encourage inflationary policies which would ultimately seriously impair the balance of payments.

Improved liquidity may also be had in the future from an inclusion of borrowing liens in the IMF as reserves and acknowledgment that these reserves are available to be used. Related is the fact that the IMF, with widespread convertibility, will increasingly use other currencies to strengthen the liquidity of members rather than the dollar. Finally, at the appropriate time the U.S. Government will undoubtedly free itself of the shackles imposed by the tying up of most of our international reserves as a cover for domestic liabilities.

Aggressive action on several fronts will also reduce the deficit. The export drive, the improved financing facilities, the reduction of tax favors for income invested abroad, the pressure on nations with surpluses to bear a larger burden of the military and aid expenditures, the encouragement of tourism in the United States, the scrutinizing of Public Law 480 exports to be sure that they are not substitutes for dollar-earning sales, the trade expansion program—all of these should help. But especially the measures to tie aid and military spending to the purchases in the American market are very important. Because incomes here are 2 to 3 times those in Western Europe, the possibility of large rises in tourist expenditures here is not great; and the gains from the expansion of the trade bill promise not so much an improvement in the balance of payments as an avoidance of loss of exports.

19. MISCELLANEOUS MEASURES

It is difficult to assess the success of many of the miscellaneous programs introduced by the Kennedy administration. Here are some details.

On the basis of past experience, curtailment of imports by tourists as a result of the reduction of tariff-free imports available to tourists was estimated in August 1962 by the Commissioner of Customs at \$119 million for the year 1962 (\$301 million versus \$420 million brought in prior to Public Law 87-132).

In attempts to stimulate exports, the Government has appointed an export coordinator, National and Regional Export Expansion Councils, provided international trade fairs and exhibitions, and U.S. trade centers, sent U.S. trade missions abroad, increased the number of officials with State Department missions, and taken other measures. The net results are of course difficult to assess.

Under a Foreign Credit Insurance Association exporters were offered insurance to assist sales abroad both on short- and long-term accounts, and bank guarantees for banks to cover term export credits. The Export-Import Bank on July 12, 1962, announced that a total of more than 400 export transactions valued at \$267 million were assisted by this program during the 6 months ended June 30, 1962.

Tourist stimulation seems to have been mildly successful. In the first 4 months of 1962 the number of foreign visitors increased by 16 percent over a similar period in 1961.

The Government also is seeking (H.R. 12080) permission to offer higher rates on \$2 billion of time deposits held in the United States by foreign central banks, governments, and international institutions. At present no distinction is allowed on rates between domestic and foreign holders of time deposits. Freedom to offer higher rates to

foreign interests, it is expected, will reduce the magnitude of transfers by foreign interests of dollars into gold.²

Finally, the U.S. Government continues to put pressure on foreign governments to remove quotas on their imports. Few industrial quotas remain; but it is another story on agricultural products.

20. A VIEW, SEPTEMBER 1962

In 1961 and 1962 there have been substantial improvements in the U.S. balance of payments. Secretary Dillon reported to the Joint Economic Committee on August 17, 1962, as follows:

Our balance-of-payments accounts are beginning to show some of the fruits of the measures we have taken. The overall deficit, which averaged \$3.7 billion between 1958 and 1960, was reduced to \$2.5 billion in 1961, and during the first half of this year fell further to an annual rate of \$1.5 billion. * * *

Secretary McNamara has established as a target the reduction of net military spending abroad to \$1.6 billion for fiscal 1963, and to \$1 billion by fiscal 1966. This compares with a previous \$2.6 billion or more. * * *

In requiring the Budget Bureau to scrutinize all transactions that involve purchases of foreign currencies, the administration takes an additional step in guarding the dollar. This in a sense is related to the policy of Federal procurement at home wherever possible, and even within limits if the price at home is higher. Thus the Government weighs against higher budgetary costs the savings in reserves. For purchases that might cost, say, \$1 billion abroad the Government might be willing to spend \$1.2 billion for these purchases at home and consider the additional cost in dollars less of a burden than the benefits of saving \$200 million of international reserves.

Why, it may be asked, has the situation improved in the United States? Clearly the advanced repayment of debts by foreigners is one factor; the diversion of purchases to the United States of dollars available for military and aid programs is a more important factor; the large relative rate of growth in Western Europe is also relevant, as is the general tendency toward more inflation in Western Europe relative to the United States.

Reports proliferate that Western Europe is now experiencing serious wage inflation. Indeed since 1958 wage rates in Germany, France, and Japan (1958=100) had increased by the early part of 1962 by 2 to 3 times as much as in the United States; but this generalization does not hold for Italy. Moreover, we must allow for the large rise of productivity as an offset to the large wage rises for Western Europe. And with concern over the dollar problem the United States pursues more cautious deficit policies and the Government presses for reasonable wage and price policies.

21. CLASSICAL MEDICINE

Nevertheless, it is safe to hold that the classical medicine is beginning to work, that is the surplus countries accumulate reserves, create more money, and the additional money chases goods and services to a point where prices begin to rise relative to those in debtor countries (especially the U.S.). This outcome is the more likely just because

² See House Banking and Currency hearings on "Higher Interest Rates on Time Deposits of Foreign Governments," July 1962, pp. 1-7.

unemployment averages about 2 percent in Western Europe compared to 5 to 6 percent in the United States.

Another relevant factor is the rate of growth. From 1950 to 1960 EEC (European Economic Community) experienced a 45-percent growth as compared with 18 percent for the United States.³

Is the country with higher rates of growth likely to gain or lose international reserves? The classical and neoclassical view has been that the faster growing countries will experience larger imports and reduced exports and hence will suffer losses of reserves. The penalty for relative prosperity is losses of reserves. Of late this view has been challenged on the grounds that the rapidly growing countries tend to attract capital and the sluggish ones to lose capital, with the result that reserves tend to move toward the dynamic countries. The gains on capital account more than balance the losses on merchandise and service account. What is more, the movements of reserves in recent years seems to support this view. Yet I am not convinced. The large gains of gold and dollar balances experienced by Western Europe, for example, can be explained by many developments besides the rate of growth:

(1) The large reductions of costs associated with the enlargement in the size of the market, of the industry, and the firm.

(2) Gains from the devaluations insofar as these have not been offset by corresponding relative increases in prices in the countries devaluing.

(3) Large imports of capital related not only to the rate of growth in Western Europe but also the special tax incentives to be had by investing abroad.

(4) Military assistance to Western Europe.

In other words, the argument is that if relative growth impairs the reserve position, special factors operated to depress prices and thus to improve the reserve position of Western Europe even as growth would tend to have the opposite effect.

22. DEVALUATION OF THE DOLLAR

I suspect that other contributors to this symposium will discuss therapy and for this reason and because of my earlier discussion I can be relatively brief. In a book published early in 1962, I listed 28 possible therapeutic measures.⁴ Since then a few others have occurred to experts and a few others have been used. But the major recourse still has been to stimulate exports (inclusive of tourist travel); divert purchases under aid and military programs to the United States; containment of inflationary wage, price, and fiscal policies; various measures to increase international liquidity; and maintenance of short-term interest rates at a level sufficiently high to discourage movements of short-term capital movements.

A possible way to improve competitive position and increase liquidity is an increase in the price of gold or a devaluation of the dollar in relation to foreign currencies. Many economists urge this solution. They see in devaluation a simple and easy way to reduce the foreign price of U.S. exports and increase the U.S. price of foreign exports to

³ Senate finance hearings, "Trade Expansion Act of 1962," p. 57.

⁴ "The Dollar in Crisis," Harcourt Brace, 1962, S. E. Harris, editor, pp. 2-3.

the United States. They argue that the dollar is overvalued, that is the dollar is too expensive at current exchange rates to yield a level of exports and imports to stop the substantial loss of reserves. This overvaluation, however, is real only because the United States needs to export about \$5 billion more than imports in order to cover military and aid expenditures abroad and large capital movements. Treatment of these items could quickly end overvaluation, that is to say, without our serious obligations abroad there might well be an undervalued rather than an overvalued dollar.

The Kennedy administration is clearly committed to a policy of strengthening the dollar without recourse to such extreme measures as a rise in the price of gold or devaluation in relation to foreign currencies or radical changes in the manner of providing additional reserves.

In pushing on numerous frontiers the Kennedy administration is seeking a way out that requires sacrifices from all groups, e.g., moderate wage demands, harder and more productive work, non-inflationary price policies and hence lower profits, reduced tariff-free imports for tourists, less easy money and smaller deficits than otherwise would be had.

The devaluation approach is an easier one to invoke. But it should be stressed that devaluation is a two-way street. A devaluation of the dollar vis-a-vis European countries is possible only if these countries in turn do not allow their currencies then to rise vis-a-vis the dollar. Most experts agree that acquiescence by Western Europe is not likely. Moreover, even if a currency devaluation were allowed by our competitors, any relief is likely to be temporary. Prices respond to the devaluation.

A devaluation in terms of gold, that is a rise in the dollar price of gold, can be achieved unilaterally though unless there were concerted action by the larger countries, serious speculation would follow. There is some support for a rise in the price of gold in academic circles, and notably by Sir Roy Harrod in a forthcoming book on "The British Economy." His enthusiasm for a devaluation in terms of gold rests on the argument that there is not sufficient international liquidity available and hence (and especially in the United States and the United Kingdom) monetary and fiscal policies are too restrained, with the result that interest rates are too high and hence investment too low, and hence unemployment (real or disguised) too high and output too low.

Since the fall of 1960, the President has announced his strong opposition to a devaluation and his faith in the effectiveness of alternative measures. He has pointed to the slower rate of loss of reserves since he took office. Our loss of gold is related to the accumulation of short-term dollar debts by foreigners, a process over which we have little control except insofar as we manage to cut our international deficits, and also of the attitude of countries accumulating dollars. The danger lies in any large conversion of dollars into gold. Private holders do not have this privilege; but the foreign monetary authority does. Much depends then on the rate at which private owners of dollar balances convert into their domestic currencies and then upon the attitude of the monetary authorities. The rate at which they convert into gold will depend upon the distribution of these foreign held dollars. Some central banks tend to hold larger proportions of reserves in

gold than others. (Secretaries Dillon and Roosa have been urging foreign authorities not to insist on excessive reserve proportions in gold, and also to limit hoarding of gold and operations in the gold markets. The rate at which the foreign monetary authority converts dollars into gold will also depend upon the assessment of the likelihood of a devaluation. Obviously if a dollar equals 1/35th of an ounce of gold and the foreign authority believes that there is significant possibility of a fall in the value of the dollar to 1/70th of an ounce of gold, he will convert all dollar balances into gold beyond the minimum needed for trade. Hence the need of assuring foreign authorities of a no-devaluation determination and also the pursuit of policies that do not stimulate further large losses of gold and hence the greater possibility of a devaluation. This means that domestic policies should be less expansionist than they otherwise would be. But it does not mean that the dollar situation should be used as an excuse for pursuing restrictionist policies that are too costly to the economy as against the costs of an increased risk of a devaluation.

In the view of the Kennedy administration, the current policies to contend with the dollar problem are costly; but they are not so costly vis-a-vis effects on employment and output as to justify a devaluation. For this reason it is most important that the restraints on expansionist and growth policies should not be greater than what is justified by the dollar situation. For if the monetary and fiscal restraints are allowed to be excessive, then the costs in unemployment and output will greatly increase and the pressure to devalue cumulate.

23. GUARANTEES AGAINST A DEVALUATION

As an alternative to devaluation, the suggestion is increasingly being made that the United States guarantee foreign holders of dollars against devaluation. In other words, the Government would promise official holders of dollars that should the United States raise the price of gold to (say) \$70 an ounce, the official holders of dollars would be compensated with an additional dollar for every pre-devaluation dollar held. The guarantee is a weapon for assuring foreigners that there will be no devaluation, and if there should be, they will not suffer losses. Hence they will be willing to hold dollars and not convert into gold. Sir Roy Harrod proposes that with a devaluation, compensation should be offered to official owners of dollars only to the extent that they held dollars in excess of normal as an accommodation to the United States.

In a brilliant refutation of the devaluation thesis and the guarantee proposition, Secretary Roosa contends that a guarantee would mean much greater control of domestic policies by foreign interests than now prevails, that a guarantee would have little meaning to foreigners unless appropriate domestic policies were pursued and that a sovereign power might still not vote the necessary funds to validate claims arising from a guarantee.⁵

⁵ R. V. Roosa, "Assuring the Free World's Liquidity," Federal Reserve Board of Philadelphia, Supplement, September 1962, pp. 5-7.

24. INSTITUTIONAL CHANGES

Aside from guarantees and devaluation, the critics of Kennedy's dollar policy concentrate on radical changes in institutions that might provide increases in reserves. In 1960-61, Professor Triffin offered some ingenious proposals along these lines.⁶ But the Government at that time was not sympathetic. The proposals seemed too unorthodox, the requirement of a guarantee against devaluation for dollar debts to the International Monetary Fund (given in exchange for International Monetary Fund assuming responsibility for dollar obligations of the United States of America) unacceptable to the Congress, and the probable deterioration of the assets held by the new institution (or International Monetary Fund) as it increasingly created deposits for underdeveloped countries too costly.

The problem is largely one of providing an improved distribution of liquidity, an adequate volume of reserves to cover large runs on the major countries and also to provide for the needs of a growing trade. A superbank may indeed greatly increase the liquid reserves available. But, as Roosa shows, the problem of management would be most difficult. How much more? Conflicts would clearly arise and the usual checks inherent in the operations of a single country through effects on the balance of payment would not be present. The substitution of a currency of a new super-central bank for the dollar and sterling would not be cheerfully accepted in the United States. There is not too much enthusiasm for yielding on sovereignty beyond the limits now allowed under the International Monetary Fund.

25. COMPROMISE SOLUTIONS

Is there no compromise between official policy in the past and the more extreme proposals? I think there is. We should move ahead not too fast; yet sufficiently to remove the excessive restraints on monetary and financial policies.

Secretary Roosa has led the way in one field.

* * * through reciprocal holdings of currencies, though engaging in forward transactions in currencies, and through the outright borrowings of dollars or of other currencies from foreign countries, the United States has developed arrangements to cushion or offset a substantial part of any disruptive short-term capital outflows, or to minimize the impact on our central gold reserve caused by shifts of monetary reserves from countries whose gold ratios are low to those whose gold ratios are high. * * *

But I would propose to go even further. I see no sufficient reason why the gold points for the dollar should not be allowed to vary a few per cent in all up and down as allowed in the International Monetary Fund charter. The result would be a great discouragement of short-term capital movements, one of the most disturbing factors accounting for the gyrations in the balance of payments. A widening of the gold points would introduce an element of uncertainty which would greatly cut these capital movements.

⁶ "The Dollar in Crisis," pp. 223-294.

⁷ *Op. cit.*, p. 11.

Another major step would be to remove reserve requirements against Federal Reserve liabilities. The purpose of reserves is for use, not hoarding. Indeed, temporary alleviations are now possible. But what we need is legislation which once and for all will increase our usable reserves by \$11-\$12 billion. The great advances made by Secretary Roosa and these two measures would go a long way toward easing the strain on the dollar. Measures pressed by the Secretary to discourage private hoarding of gold and operations of the gold markets abroad and increased cooperation among central banks would also help. Here I also include increased willingness to hold reduced proportions of reserves in gold and more in dollars.

Is there anything else beyond what is already being done and these proposals? Scrutiny of capital exports from this country is a possibility; but this should be an extreme measure as should any further restrictions on imports of commodities. Some relief could also be had by removing tax advantages for capital invested abroad. Unfortunately the Congress did not accept the major proposals of the administration in this area.

RECENT DEVELOPMENTS IN THE COMPETITIVENESS
OF AMERICAN INDUSTRY AND PROSPECTS
FOR THE FUTURE

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RECENT DEVELOPMENTS IN THE COMPETITIVENESS OF AMERICAN INDUSTRY AND PROSPECTS FOR THE FUTURE

INTRODUCTION

The use of clichés appears to have become a standing feature in many writings on present-day balance-of-payments problems. In the appraisal of the American balance-of-payments situation, we have gone all the way from “dollar shortage” to “dollar glut,” and from “superior competitiveness” to “weak competitive position” within the scope of a few years. And since we are all too often inclined to making prophecies on the basis of insufficient evidence, the conclusions reached have also been frequently projected into the future.

But conditions change rather rapidly and hence opinions often become outdated before they ever see the print. Several examples of this “printing-lag” could be cited from writings that purported to show the existence of a permanent dollar shortage, and proponents of the idea of a structural deficit in the U.S. balance of payments also appear to have voiced premature opinions. At the time when mounting pressures for wage increases outstripping the advance of productivity have become apparent in most of Western Europe, for example, it has been pointed out that—

entrepreneurs in other industrialized countries (perhaps with the exception of England) are in a much better position * * * to increase workers' money wages considerably while keeping their prices fairly stable. In the United States, on the other hand, strong and well-informed unions are able to fight over every small gain in industrial productivity.¹

These considerations indicate that the extrapolation of past trends in variables determining the balance-of-payments situation can lead to erroneous conclusions. As it will be seen in the following, the American competitive position, too, has undergone significant changes in recent years and future developments will also depend on shifts in the relevant variables. Thus, an assessment of prospective changes in U.S. competitiveness will have to include a discussion of the underlying factors that determine competitiveness, as well as an examination of past developments and possible future changes in these variables.

THE MEANING OF “COMPETITIVENESS”

But what do we mean by “competitiveness”? For the individual producer, competitiveness, broadly defined, means the ability to sell, to compete on the market. But since international trade is determined by relative rather than absolute advantages, this concept does not fit well into classical comparative-cost theory. If exchange rates

¹ Jaroslav Vanek, “Long-run Factors in the United States Payments Disequilibrium,” “The Dollar in Crisis,” ed. S. E. Harris, New York, Harcourt, Brace & World, 1961, p. 168.

are free to fluctuate, shifts in demand-and-supply conditions do not make a country more (or less) competitive but rather change her trade pattern; goods that might have been imported before will now be exported and vice versa. On the other hand, under fixed exchange rates, we can say that a country has become more or less competitive if, as a result of cost-and-price developments or other factors, her ability to sell on foreign and domestic markets has improved or deteriorated.

Still, while we can speak about changes in competitiveness in regard to all commodities produced in a particular country, at a given point of time we can only say that a country's producers are more or less competitive with respect to certain commodities or commodity groups (e.g., steel) than are other producers, and superior (or inferior) competitiveness cannot relate to *all* goods produced. At the same time, statistical difficulties hinder a comparison of prices and wages in absolute terms, and more meaning can be attached to comparing changes over time.

Changes in the competitive position of the seven largest exporters of manufactures (United States, Belgium-Luxembourg, France, Western Germany, Italy, Japan, and the United Kingdom) over the period 1953-61 will be our concern in the following. The investigation is restricted to manufactured goods because export subsidies, food disposal programs, and other discriminatory measures distort competitive conditions in the trade of agricultural products.

Since competitiveness is defined as ability to sell, it could be argued that changes in the share of a country's production in world consumption be taken as an indication of changes in that country's competitive position. But this solution is little to be commended since it presupposes the absence of natural and artificial barriers to trade and does not distinguish between home and foreign markets. Instead, we should consider changes in sales to all such markets where the producers of the countries in question receive equal treatment.

To attain this objective, we ought to exclude not only sales in the home market but also export sales to the countries under comparison. Such a calculation has been made for the United States and the United Kingdom, for example, when the export shares of the two countries in third markets have been compared.² But in the present investigation we are examining the exports of seven countries that are also large importers of manufactured goods, and the gain in precision attained through excluding the sales of these countries to each other's markets appears to be outweighed by the loss due to the exclusion of a large part of international trade.

² Bela Balassa, "An Empirical Demonstration of Classical Comparative Cost Theory," *Review of Economics and Statistics* (forthcoming).

Export shares are also affected by changes in regulations of a discriminatory character on trade. Available evidence suggests that the most important of these—the establishment of the European Common Market—did not have trade-diverting effects of much importance in regard to manufactured goods by 1961. We have therefore considered changes in exports to all markets.

CHANGES IN THE EXPORT SHARES OF MANUFACTURING

As table 1 indicates, the relative shares of the countries under consideration in their combined exports of manufactured goods have undergone significant changes over the period 1953–61. Given the approximate doubling of the volume of manufactured exports from the seven countries taken together (for short, world exports), Italian and Japanese exports expanded approximately fourfold and German exports nearly threefold. At the same time, Belgium and France roughly maintained their shares as of 1953, while the increase of exports was less than one-third in the case of the United States and the United Kingdom. The United States suffered the largest losses between 1957 and 1959, and her exports of 1961 were still below the 1957 level. (For a comparison of changes in export-volumes, see chart 1).³

TABLE 1.—Exports of manufactured goods (SITC 5–8)

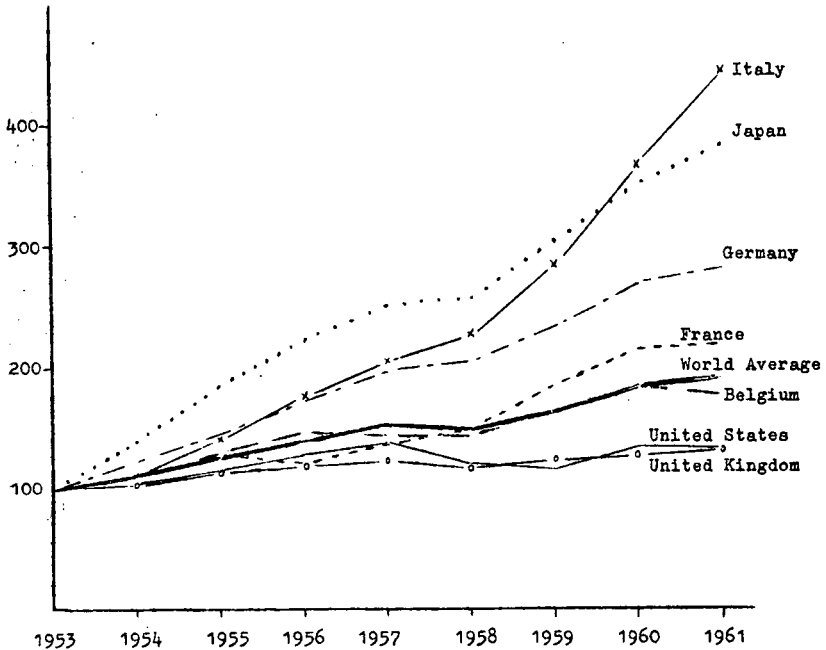
	United States	Belgium-Luxembourg	France	Germany	Italy	Japan	United Kingdom	Total of 7 countries
Millions of dollars								
1953-----	7,162	1,784	2,482	3,662	883	988	5,876	22,837
1954-----	7,477	1,835	2,705	4,422	947	1,389	6,079	24,854
1955-----	8,321	2,212	3,077	5,250	1,149	1,744	6,686	28,439
1956-----	9,718	2,565	3,014	6,321	1,372	2,182	7,337	32,509
1957-----	11,016	2,568	3,412	7,471	1,627	2,538	7,712	36,344
1958-----	9,772	2,486	3,617	7,775	1,735	2,510	7,525	35,420
1959-----	9,630	2,730	4,176	8,680	2,024	3,032	7,864	38,136
1960-----	11,333	3,068	5,062	10,130	2,701	3,616	8,317	44,227
1961-----	11,347	3,173	5,211	11,208	3,116	3,762	8,640	46,457
Percent								
1953-----	31.4	7.8	10.9	16.0	3.9	4.3	25.7	100
1954-----	30.1	7.4	10.9	17.8	3.8	5.6	24.5	100
1955-----	29.3	7.8	10.8	18.5	4.0	6.1	23.5	100
1956-----	29.9	7.9	9.3	19.4	4.2	6.7	22.6	100
1957-----	30.3	7.1	9.4	20.6	4.5	7.0	21.2	100
1958-----	27.6	7.0	10.2	22.0	4.9	7.1	21.2	100
1959-----	25.3	7.2	10.9	22.8	5.3	7.9	20.6	100
1960-----	25.5	7.0	11.4	22.8	6.1	8.2	18.9	100
1961-----	24.4	6.9	11.2	24.1	6.7	8.1	18.6	100

Source: (23.)

³ The U.S. data do not include military exports.

Chart 1

Changes in the Export Volumes of Manufactured Goods, 1953-1961

Volume of Exports
(1953 = 100)

Source: Tables (1) and (7)

But an increase (decrease) of a country's market share in the world exports of manufactures does not necessarily mean an improvement (deterioration) in her competitive position with respect to geographical submarkets and commodity groups. It is conceivable that a country's share in each submarket remains unchanged for every commodity group, and the country gains or loses according to the changes that have taken place in the relative importance of the various submarkets and/or commodity groups. It has been shown, for example, that in the interwar-period the concentration of British exports in declining industries was partly responsible for the decrease of Britain's share in world markets.⁴

To indicate the effects of the changing commodity-composition of world trade in manufactures, we have separately calculated changes in market shares for seven categories of manufactured goods (basic metals, electrical machinery, machinery other than electrical, transport equipment, chemicals, textiles, and other manufactures). The first six of these groups comprise 78 percent of the exports of manufactures

⁴H. Tyszynski, "World Trade in Manufactured Commodities, 1899-1960," The Manchester School of Economic and Social Studies, September 1951, pp. 272-304.

from the countries under consideration; the remainder includes a great variety of products which are not easily comparable.

Changes in trade patterns do not differ greatly among the seven commodity groups, however. The United States and the United Kingdom have seen their share fall in each of these categories, while Germany, Italy, and Japan gained everywhere (appendix table 1-7). In fact, if we calculate the percentage shares of the individual countries in the exports of all manufactures under the assumption of an unchanged commodity-composition of world exports, our results will not change substantially.

Actual and hypothetical shares of each of the seven countries in world exports of manufactured goods are shown in table 2. It appears that changes in the commodity-composition of exports benefited the United States and Germany to some degree, while exports from Japan were adversely affected. The results can be explained to a large extent by shifts in the origin of textile exports: Japanese gains were made chiefly at the expense of the United States while the relative position of this industry declined.

TABLE 2.—*Actual and hypothetical shares in exports of manufactured goods in 1961*

	Actual	Hypothetical
United States.....	24.4	23.6
Belgium-Luxembourg.....	6.9	7.2
France.....	11.2	11.5
Germany.....	24.1	23.4
Italy.....	6.7	7.0
Japan.....	8.1	8.9
United Kingdom.....	18.6	18.4
	100.0	100.0

NOTE.—A country's hypothetical share of exports was calculated under the assumption that the commodity composition of world exports in 1961 was identical to that in 1953.

Source: Table 1.

A further question concerns the extent to which changes in export shares can be explained by shifts in the relative importance of various geographical markets. In the case of the United States, for example, some of the decline in her share in world exports can be attributed to the relative decline of imports by Latin America and Canada which have traditionally taken a large part of American sales.

According to a report of the U.S. Department of Commerce, in the period 1953-58 changes in the commodity composition and geographical distribution of exports accounted for about one-third of the relative decline of U.S. exports.⁵ Changes in commodity composition were, on balance, favorable and hence geographical shifts alone were responsible for the adverse developments.⁶ Similar results apply to the years 1958-59.⁷ In recent years, however, there is no evidence that compositional changes would have adversely affected U.S. exports.

⁵ "Changes in U.S. Shares of Major World Export Markets Analysed," *Foreign Commerce Weekly*, Dec. 21, 1959.

⁶ Anne Romanis, "Relative Growth of Manufactures of United States and Other Industrial Countries," *IMF Staff Papers*, May 1961, pp. 241-73.

⁷ R. L. Major, "World Trade in Manufactures," *National Institute Economic Review*, July 1960, pp. 18-27.

It should be added that changes in the relative importance of the various geographical submarkets and commodity groups cannot be completely separated from the question of competitiveness. Although in order to determine changes in the competitive position of a country under *ceteris paribus* assumptions we have to exclude the impact of shifts in the composition of world exports, in a broader sense one could regard the expansion of exports in new industries and to new markets as a form of competition.

NONPRICE COMPETITION

Aside from compositional changes, the competitive position of a country's producers is affected by developments in costs and prices and by nonprice factors. Nonprice factors include the conditions pertaining to the sale of a product, such as the length of the delivery period, the availability of parts and components, servicing facilities, and financial arrangements, as well as various dynamic factors. The latter comprise the development of new capacity, the introduction of new products, and technological improvements on existing products.

The shortening of delivery dates has been mentioned as an important factor contributing to the expansion of European exports in recent years. But undue significance should not be attributed to this factor. Britain had been cited as an example *par excellence* of "lengthening the queue" in the past,⁸ and still the relative share of British exports declined to even greater extent than did American exports during the period under review. On the other hand, establishment of servicing networks and attractive financing arrangements for foreign buyers are known to have played a part in the expansion of German exports.

In the years of the so-called dollar shortage, it was argued that technological advances coupled with the research orientation of American industry insured the maintenance of an advantageous position for U.S. producers in world markets.⁹ This technological lag may be shortening now so that foreign competitors soon appear in the marketing of a new product. Also, European producers are better able to exploit inventions with high capital requirements which were often passed over in favor of U.S. producers in the past. Finally, countries such as Italy and Japan that have more recently developed various branches of heavy industry, have created a capacity to export which was nonexistent a decade ago.

Nonprice factors undoubtedly play an important role in the changes of export patterns. The development of new capacity should be taken into account, for example, in explaining the increase of Japanese exports of electrical machinery from \$15 to \$337 million within the scope of a few years. But this should not mean that we could neglect the price factor since changes in relative prices were a precondition for the Japanese electrical machinery industry to compete successfully in the world market. And since the impact of nonprice factors on market shares cannot be expressed in quantitative terms, we will restrict our investigation to developments in costs and prices.

⁸ Roy Harrod, "The British Boom, 1954-55," *Economic Journal*, March 1956, pp. 1-16.

⁹ Erik Hoffmeyer, "Dollar Shortage and the Structure of U.S. Foreign Trade," Copenhagen, Munksgaard, 1958.

PRICE COMPETITION

The importance of cost-price factors has often been discounted in the past. It was argued, for example, that the decline of U.S. export shares between 1953 and 1958 could not be attributed to relative price changes, since the cost-of-living index and the general wholesale price index did not show larger increases in the United States than elsewhere.¹⁰ But these indexes are inappropriate for the problem at hand since both include goods and services that do not enter international trade. With regard to the cost-of-living index it has been shown that since productivity gains in the tertiary sector are less than average, the relative price of services increases *pari passu* with the growth of productivity in the national economy.¹¹ It is not surprising, therefore, that European countries which registered large productivity gains have also shown increases in living costs. And the general wholesale price index (as well as the implicit GNP deflator) includes agricultural goods and other commodities which are not exported or, if they are, often benefit from discriminatory practices.¹²

Instead, comparison should be made between changes in the cost and price of exported manufactured goods, on the one hand, and the volume of exports, on the other. Ideally this would be accomplished by linking variations in cost items to price changes and to changes in export volumes. But information on the cost of exports is not directly available, hence a further link has to be inserted: the wholesale price-index of manufactured goods. This can be done by examining (a) the impact of changes in labor and material costs on the wholesale prices of manufactured goods, (b) the relationship between wholesale prices and export prices, and (c) the effects of price changes on the volume of exports.¹³

The application of this method of inquiry should not mean that a unidirectional relationship could be substituted for the interdependence of economic phenomena. Wholesale prices affect wages and thereby labor costs through changes in the cost of living. Demand shifts in domestic and export markets influence the wage and price pattern, and some of the materials that appear as inputs are also outputs of the manufacturing sector. Still, considering the importance of causation from costs to exports through prices, the examination of these relationships appears to be a useful simplification for purposes of the present study.

It should further be added that the process of adjustment of costs, prices, and export volumes is not necessarily instantaneous. Increases in prices often follow wage increases with a lag; and price changes, too, fail to have an immediate effect on export shares. The lagged behavior of these variables ought to be taken into account when appraising the values they take in any given calendar year.

¹⁰ Cf. e.g., the statement issued at the Princeton Conference on the Balance-of-Payments of the United States, Nov. 19, 1959, cited in Emile Benoit, "Europe at Sixes and Sevens," New York, Columbia University Press, 1961, p. 147.

¹¹ Bela Balassa, "Patterns of Industrial Growth: Comment," *American Economic Review*, June 1961, pp. 394-97.

¹² On the other hand, cost-of-living indexes can enter the picture indirectly inasmuch as rising living costs induce workers to demand wage increases, and prices of nontraded goods are also relevant if these are used as inputs in export products.

¹³ Note that trade statistics usually provide indexes of export unit values rather than export prices. Since unit values are calculated by dividing export values by export volumes, these are affected by changes in quality and commodity composition. For a short period, however, these factors are not likely to greatly influence the results, and unit value indexes can give a good indication of price changes. This is the more so since quality improvements might proceed in a parallel fashion in industrial countries.

LABOR COSTS

Table 3 shows changes in labor productivity, hourly earnings, and labor costs for manufacturing as a whole in the countries under consideration between 1953 and 1961. Two of these, Japan and the United Kingdom, displayed a definite trend in labor costs throughout the entire period, with continuing decreases in Japan and increases in the United Kingdom. For the United States and the countries of continental Europe, two distinct periods can be distinguished. In the United States, labor costs in manufacturing had been rising until 1958 and fell afterward while in continental countries labor costs had been declining until 1959 and have risen in subsequent years.

TABLE 3.—*Output per man-hour, hourly earnings and labor costs in manufacturing*

[1953=100]

	1953	1954	1955	1956	1957	1958	1959	1960	1961
United States:									
Output per man-hour...	100	99	106	107	107	109	117	120	124
Hourly earnings.....	100	102	107	112	118	121	126	130	133
Labor costs.....	100	103	101	105	110	111	107	108	107
Belgium:									
Output per man-hour ¹ ...	100	109	117	122	126	127	133	139	143
Hourly earnings.....	100	103	106	115	125	131	133	138	143
Labor costs.....	100	94	91	94	99	103	100	99	100
France:									
Output per man-hour...	100	108	115	121	133	145	149	154	165
Hourly earnings ²	100	108	116	130	137	132	119	129	139
Labor costs ²	100	100	101	107	103	91	80	84	84
Germany:									
Output per man-hour...	100	105	112	115	122	129	138	148	152
Hourly earnings ²	100	102	109	119	129	138	145	160	184
Labor costs ²	100	97	97	103	106	107	105	108	121
Italy:									
Output per man-hour...	100	106	115	123	130	138	152	163	167
Hourly earnings.....	100	104	109	117	123	128	131	137	147
Labor costs.....	100	98	95	95	95	93	86	84	88
Japan:									
Output per man-hour...	100	107	113	119	128	123	150	173	197
Hourly earnings.....	100	106	109	120	126	125	136	148	162
Labor costs.....	100	100	96	100	98	102	91	85	82
United Kingdom:									
Output per man-hour...	100	104	108	108	110	112	116	122	122
Hourly earnings.....	100	107	116	124	133	137	142	155	164
Labor costs.....	100	103	108	115	121	122	123	127	133

¹ Belgian on working hours from Institut de Recherches Economiques, Sociales et Politiques.

² Adjusted for exchange-rate changes (1957-61 for France, 1961 for Germany).

Source: United States (14). All other countries: Employment and working hours (20), except for Belgium; hourly earnings (20) and (22); output (22) and (25).

By definition, variations in labor costs are explained by changes in output per man-hour and in hourly earnings. During the period under consideration differential rates of increase of productivity appeared to have had the main influence. Up to 1958 labor costs rose most rapidly in countries with a lagging rate of productivity growth—the United Kingdom and the United States—while Japan exhibited the highest rate of increase of productivity and the most pronounced fall in labor costs among the seven countries. At the same time, wages in the United States increased at a slower rate than elsewhere.

The improvement in the U.S. position in later years can also be attributed to a quickening of the advance of productivity, while a slight slowing down of productivity growth partly explains the recent rise of labor costs in Europe. But in Europe pressing wage demands engendered by a tight labor market have also contributed to higher labor costs.

Up to 1959 the increase of U.S. labor costs in manufacturing had been surpassed solely by that of the United Kingdom and only in 1961 did Germany overtake the United States, partly as a result of the appreciation of the German mark in February 1961. Elsewhere, labor costs per unit of output were generally lower in 1961 than in 1953. But labor costs in manufacturing as a whole imperfectly indicate changes in competitiveness by reason of the existing differences in regard to the export shares of the various industries and their labor costs in certain countries. With the exception of basic metals, however, available information does not permit an international comparison of developments in labor costs in individual industries.

BASIC METALS AND MATERIAL COSTS

Basic metals are of importance for purposes of the present investigation not only because of their significance in international trade but also by reason of the fact that these provide raw materials for the machinery and transport industries which account for about half of world exports of manufactures. Hence the relative rise of labor costs in the basic metal industry of a particular country will be transmitted to these industries.

According to the data of table 4, between 1953 and 1959 labor costs in the basic metal industries rose by 20 percent in the United States, while in the other countries under consideration these costs fell or—as in Germany and Japan—showed a smaller increase.¹⁴ The greater than average increase of labor costs in the U.S. metal industries has been due to the fact that while wage increases in these industries exceeded the average rise of wages in manufacturing, their productivity advance was less than for manufacturing as a whole. The largest increases in labor costs and prices have taken place in steel.

¹⁴ Italian data are likely to overestimate the decline of labor costs, however, since the increase of employment appears to be understated here.

TABLE 4.—Output per man-hour, hourly earnings and labor costs in the basic metal industries

[1953=100]

	1953	1954	1955	1956	1957	1958	1959	1960
United States:								
Output per man-hour.....	100	102	106	103	106	109	114	115
Hourly earnings.....	100	102	109	115	121	123	135	137
Labor costs.....	100	100	103	111	115	118	119	120
Belgium:								
Output per man-hour ¹	100	113	125	129	128	130	139	146
Hourly earnings.....	100	102	106	113	118	123	127	131
Labor costs.....	100	91	85	87	92	94	90	90
France:								
Output per man-hour.....	100	120	133	135	144	148	151	163
Hourly earnings ²	100	106	120	136	140	137	121	135
Labor costs ²	100	89	90	100	97	92	80	83
Germany:								
Output per man-hour.....	100	110	122	125	130	125	136	146
Hourly earnings.....	100	104	111	121	133	140	148	161
Labor costs.....	100	94	91	97	103	112	109	110
Italy:								
Output per man-hour.....	100	118	144	154	115	166	183	212
Hourly earnings.....	100	102	108	117	122	124	128	136
Labor costs.....	100	86	75	76	70	75	70	64
Japan:								
Output per man-hour.....	100	106	116	129	132	123	140	153
Hourly earnings.....	100	107	112	129	133	136	147	159
Labor costs.....	100	101	96	100	101	111	105	104

¹ Changes in working hours in Belgium assumed to be identical to that experienced in the Belgian manufacturing industry.

² Adjusted for exchange-rate changes (1957-60).

Sources: Employment, hourly earnings, and working hours (19) excepting employment in the United States (15); output in all countries except Japan (22), in Japan (12).

In studies prepared for the Joint Economic Committee it has been shown that in the United States 55 percent of the rise in the wholesale price index of all goods except farm products and foods between 1953 and 1958 can be attributed to above average increases in steel prices during that period.¹⁵ Steel accounts largely for the rise of the price index of industrial raw materials, too; between 1953 and 1959, steel contributed to about 70 percent of the increase in this index.¹⁶ As a result, raw material prices in the United States have risen faster than in any other industrial country. Also, by reason of their observed downward rigidity, especially in steel, U.S. prices of raw materials have not fallen during the downward phase of cycle while prices have responded to changes in demand conditions in Europe and Japan (table 5).

¹⁵ Otto Eckstein and Gary Fromm, "Steel and the Postwar Inflation," Study Paper No. 2, "Study of Employment, Growth, and Price Levels," Washington, Joint Economic Committee, 1959, p. 12.

¹⁶ Hang Sheng Cheng, "Relative Movements in the Prices of Exports of Manufactures," IMF staff papers, March 1962, pp. 104-105.

TABLE 5.—Price indexes of industrial raw materials

[1953=100]

	1953	1954	1955	1956	1957	1958	1959	1960	1961
United States ¹	100	100	103	107	109	108	110	110	109
Belgium.....	100	98	103	104	106	96	96	101	100
France ¹	100	96	98	102	102	91	84	86	89
Germany ²	100	98	103	104	106	104	103	104	103
Italy.....	100	98	102	109	111	102	98	99	97
Japan ¹	100	93	92	94	93	87	86	84	86
United Kingdom.....	100	98	101	105	106	99	100	100	99

¹ Calculated by using a method described in Cheng, Hang Sheng, "Relative Movements in the Prices of Exports of Manufactures, United States versus Other Industrial Countries," IMF staff papers, March 1962, p. 104.

² Adjusted for exchange rate changes (1957-61 for France, 1961 for Germany).

Sources: United States (16), Belgium, Institut de Statistique, France (25), Germany (8), Italy (25), Japan (12), United Kingdom (22).

Among export industries, the rise of labor costs and prices in the U.S. steel industry affected chiefly the machinery and transport equipment industries. Although domestic demand conditions, too, played a part in increases of machinery prices,¹⁷ higher steel prices—between 1953 and 1961, steel prices rose by 29 percent on the average¹⁸—greatly contributed to the price increase of machinery and transport equipment and thereby had a detrimental effect on the export possibilities of the latter industries.

WHOLESALE PRICES AND EXPORT PRICES IN MANUFACTURING

Returning to the consideration of costs and prices in manufacturing as a whole, we find that changes in the wholesale prices of manufactures have by and large followed developments in the two main cost-components: labor costs and material costs.¹⁹ But we cannot expect an exact correspondence partly because of errors in the data (in regard to working hours, in particular), partly because of changes in profit margins during the period under consideration. Also, there is evidence for a lag in the adjustment process as, e.g., the rise of labor costs in some continental countries in 1961 was not fully translated into increases in the wholesale prices of manufactures in the same year.

The data of table 6 indicate that the wholesale price index of manufactured goods was steadily rising in the United States and the United Kingdom between 1953 and 1959, while other countries experienced small increases or even a fall in the index. Since 1959, on the other hand, the U.S. price index has been relatively stable while increases have taken place in Europe.

¹⁷ T. A. Wilson, "An Analysis of the Inflation in Machinery Prices," Study Paper No. 3, "Study of Employment, Growth, and Price Levels," pp. 41-81.

¹⁸ "Wholesale Prices and Price Indices."

¹⁹ Changes in material costs can be represented by the price index of industrial raw materials under the assumption that material input-coefficients are relatively stable.

TABLE 6.—Price indices of manufactured goods

[1953=100]

	1953	1954	1955	1956	1957	1958	1959	1960	1961
United States.....	100	101	102	106	109	110	111	111	111
Belgium.....	100	99	103	105	108	103	103	105	105
France ¹	100	97	97	102	101	94	85	89	91
Germany ¹	100	98	100	102	103	102	101	103	109
Italy ²	100	99	99	100	102	99	97	98	98
Japan.....	100	94	93	101	100	89	91	91	91
United Kingdom.....	100	100	103	107	111	111	112	113	116

¹ Adjusted for exchange-rate changes (1957-61 for France, 1961 for Germany).² Industrial goods.

Sources: United States (16), Belgium (22), France (25), Germany (8), Italy (22), Japan (12), United Kingdom (22).

In several of the countries, a close relationship exists between movements in the wholesale price index of manufactured goods and the export unit value index of manufactures (tables 6 and 7). Exceptions are Belgium, Italy, and the United States. The concentration of Belgian exports in product-groups with falling world market prices (e.g., textiles) goes a long way to explaining the discrepancies found between the index series in that country. In Italy, the export-price index had followed closely changes in wholesale prices until 1958; in that year the former index was put on a new basis and, taking 1953 as 100, the revised index-series is considerably below the old series and the wholesale-price index.

Much of the discrepancy between movements in the American wholesale-price and export-price indexes is also explained by differences in the composition of the two. With the exception of chemicals and textiles, U.S. prices in the individual export categories rose faster than the general wholesale-price index of manufactured goods. While the latter index shows an 11 percent rise between 1953 and 1961, the price index of basic metals increased by 22 percent (iron and steel by 29 percent and nonferrous metals by 7 percent), that of electrical machinery by 23 percent, nonelectrical machinery by 32 percent, and transportation equipment by 18 percent.²⁰

TABLE 7.—Export unit value indexes of manufactured goods

[1953=100]

	1953	1954	1955	1956	1957	1958	1959	1960	1961
United States.....	100	99	101	106	112	113	116	119	121
Belgium.....	100	94	96	98	102	98	95	95	95
France.....	100	98	97	101	101	99	91	96	97
Germany.....	100	98	99	101	103	104	102	103	109
Italy.....	100	96	92	88	90	86	80	83	80
Japan.....	100	95	90	94	97	94	96	98	95
United Kingdom.....	100	99	101	105	108	110	110	113	114

Source: U.N. Statistical Office.

²⁰ "Wholesale Prices and Price Indices" and table 9.

PRICES AND EXPORTS IN INDIVIDUAL INDUSTRIES

It was noted above that statistical difficulties hinder the international comparison of the absolute level of prices and wages. In all four categories of rolled steel products for which comparison is possible (merchant bars, sections, plate, and cold rolled sheet), American steel was competitive with steel of foreign origin in 1953 but in 1961 steel prices in the United States exceeded foreign prices by 5 to 40 percent. As a result, the United States, a former net exporter, has become a net importer of steel, while exports from the Common Market countries with relatively stable prices have increased.

For individual industries other than steel, export unit value indexes or, in cases where these are not available, wholesale price indexes are given in table 9. The pattern of price changes is, by and large, uniform in the machinery and transport equipment industries. Japan and Italy showed the most favorable developments in all cases, with Germany following; price rises in the United Kingdom were greater than average and the largest increases were experienced in the United States. But prices have been relatively stable in recent years in the United States and these have been rising in Europe.

Japan and Italy experienced the largest drop in prices in the chemical and textile industries, too, excepting that successive devaluations lowered the French index of textile prices below that of the two countries. Again, price increases were above average in the United Kingdom and the United States and, in these two industries, the gap between American and European prices has further widened in recent years.

Table 10 summarizes changes in prices and exports that have taken place in the five industries in question. Among steel-using industries, the exports of electrical machinery grew particularly in Japan, Italy, and Germany (in this order) and the smallest price rises were also exhibited in these countries. At the same time, corresponding to a price increase of 23 and 21 percent between 1953 and 1961, the export shares of American and British industries declined by about one-third.

Similar conclusions apply to nonelectrical machinery excepting that here Japanese prices actually fell and the rise of prices in Germany slightly exceeded that in the United Kingdom. But given the lag between the ordering and delivery of machinery, the rise of the German export-price index, resulting from the appreciation of the mark in February 1961, could have had little effect on export sales in the same year. Again, the highest rate of expansion of exports was experienced in Japan and Italy where the most favorable price developments have taken place while the brunt of the loss was borne by the United States which exhibited the largest price increases.

The fall of the price of transport equipment in Japan, Italy, and Germany was accompanied by a more than fourfold increase in the value of exports originating in these countries while world exports only doubled. At the same time, the United States and the United Kingdom—whose prices increased equally by 18 percent—lost one-third of their share in the world market.

These results indicate that not only the pattern of price changes but also shifts in export shares have been largely identical in the steel-using industries. Some differences are experienced in the case of chemicals and textiles, however. In chemicals, the largest gains were attained in Italy and Japan, where prices fell most, while Belgium, the United States, and the United Kingdom exhibited an increase in relative (and in the first two cases, also in absolute) prices and a fall in market shares.

TABLE 8.—Steel export prices by products (U.S. dollar per metric ton)

	May 30, 1953			January 1, 1961		
	European Coal and Steel Community	United Kingdom	United States	European Coal and Steel Community	United Kingdom	United States
Merchant bars.....	93	96	105	100	113	134
Sections.....	93	105	104	94	109	132
Plate.....	115	127	104	99	115	127
Sheet (cold rolled).....	147	128	134	148	145	157

Source: 18.

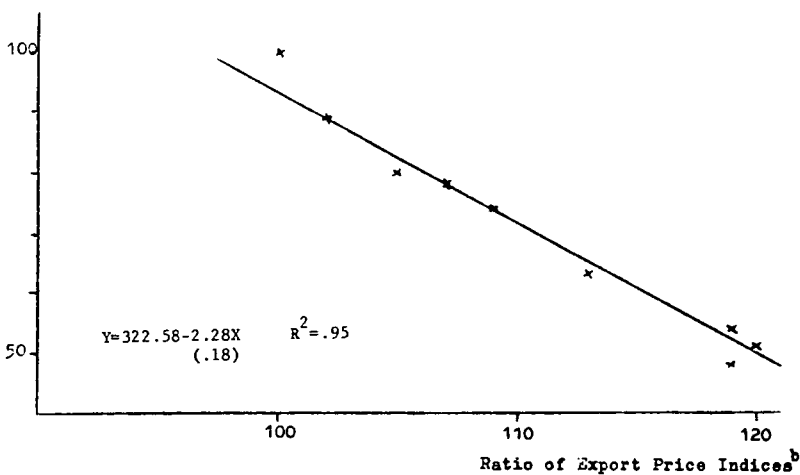
France does not fit the pattern in the case of textiles. Although, as a result of two devaluations, prices expressed in dollars fell most in France, French exports increased less than the average. But the export shares of Germany and Japan—where prices also fell considerably—increased and in the United Kingdom—the only country where textile prices rose—exports fell in relative and in absolute terms.

For manufactured goods as a whole, similar results are obtained if export data for the United States, the United Kingdom, and other industrial countries are compared. Between 1953 and 1961, export unit values rose by 21 percent in the United States and by 14 percent in the United Kingdom, while the average change was—1 percent for the other five countries. Combining the data of the United States and the United Kingdom and calculating relative changes in export unit values and export volumes, a high degree of correlation is shown between these variables (chart 2).

Chart 2

Inter-country Relationships between Export Unit Values and
Export Volumes in Manufacturing, 1953-1961

Ratio of Export
Volume Indices ^a



Source: Tables (1) and (7)

- Notes: (a) Combined index of U. S. and U. K. export volumes of manufactured goods as a percentage of the corresponding index of the other five countries (1953 = 100).
 (b) Combined index of U. S. and U. K. export unit values in manufacturing as a percentage of the corresponding index of the other five countries (1953 = 100).

With regard to individual countries, we see that the United States and the United Kingdom with the largest price increases made the smallest gains in exports, whereas Italy and Japan experienced a fall in prices and a substantial expansion of exports (table 11). France occupies a middle position among these countries while differences in the composition of exports affected the results in the case of Germany and Belgium. Whereas Germany's exports are largely concentrated in industries with higher than average increases in prices, in Belgium the opposite is the case. In 1961, 51 percent of German exports originated in the machinery and transport equipment industries, where prices rose the most and the corresponding figure is 19 percent in Belgium. Note also that price increases which occurred in 1961 in Germany could not have had much effect on export sales in the same year.

TABLE 9.—Price indexes in selected manufacturing industries

	1953	1954	1955	1956	1957	1958	1959	1960	1961
Electrical machinery:									
United States (W).....	100	102	104	112	121	123	125	125	123
Germany (E).....	100	94	96	100	99	99	103	105	109
Italy (W).....	100	96	96	99	98	96	97	101	103
Japan (W).....	100	99	97	105	113	109	107	107	105
United Kingdom (E).....	100	100	105	108	109	109	114	115	121
Nonelectrical Machinery:									
United States (W).....	100	102	106	115	123	126	129	131	132
Germany (E).....	100	102	104	109	113	114	114	120	127
Italy (E).....	100	102	98	95	96	95	98	100	104
Japan (E).....	100	97	92	92	95	94	94	93	93
United Kingdom (E).....	100	100	103	107	114	119	121	124	126
Transport equipment:									
United States (W).....	100	100	103	109	114	118	120	118	118
Germany (E).....	100	94	93	95	97	101	99	98	96
Italy (E).....	100	100	92	74	83	79	71	81	81
Japan (W).....	100	99	97	97	97	96	93	90	90
United Kingdom (E).....	100	100	101	106	111	114	115	120	118
Chemicals:									
United States (W).....	100	101	101	101	104	104	104	104	103
Belgium (W).....	100	100	105	106	109	108	108	107	105
France (W).....	100	98	97	97	93	87	79	80	81
Germany (E).....	100	101	99	97	95	91	88	88	86
Italy (E).....	100	91	86	86	83	75	65	61	60
Japan (E).....	100	104	98	91	84	74	69	69	66
United Kingdom (E).....	100	100	101	101	103	100	100	98	95
Textiles:									
United States (W).....	100	98	98	98	98	96	98	99	97
Belgium (W).....	100	99	98	96	98	88	85	92	93
France (W).....	100	98	92	93	100	87	72	76	77
Germany (E).....	100	101	104	107	109	96	90	92	88
Italy (E).....	100	97	91	89	92	87	80	80	81
Japan (E).....	100	96	90	91	86	78	84	88	86
United Kingdom (E).....	100	101	101	100	102	102	99	103	107

NOTE.—(W) Wholesale price index, (E) export unit value index. For Italy, price changes between 1960 and 1961 estimated on the basis of the wholesale price index.

Sources: United States (16), Belgium (1) and (25), France (2) and (3), Germany (4) and (5), Italy (10) and (7), Japan (11), United Kingdom (13) and Board of Trade.

DEVELOPMENTS BETWEEN 1961 AND 1962 (SECOND QUARTER)

We have so far discussed changes in costs, prices, and export shares that had taken place during the 1953-61 period. It has been pointed out that the process of adjustment is not instantaneous: price rises often follow increases in labor costs with a lag and—especially in the machinery and heavy transport equipment industries where the delivery period is relatively long—price changes may soon affect export orders but not export sales.

The existence of lags in the adjustment process is apparent if we consider changes in these variables between 1960 and 1961. In Germany, for example, increases in labor costs were not translated into higher prices but rather squeezed profit margins. Also, the rise of export prices in Germany—as well as the lowering of prices in some U.S. export industries—had little effect on export volumes in 1961, although new export orders to the German industry declined.²¹

TABLE 10.—Prices and exports in selected manufacturing industries

	Index of export (E) or wholesale (W) prices, 1961 (1953=100)	Index of export volume, 1961 (1953=100)	Export shares (percent)	
			1953	1961
I. Electrical machinery:				
United States (W).....	123	137	36.3	25.9
Belgium.....	(¹)	(¹)	4.2	3.6
France.....	(¹)	(¹)	7.4	8.6
Germany (E).....	109	339	17.7	27.7
Italy (W).....	103	416	2.5	4.5
Japan (W).....	105	2140	1.0	9.1
United Kingdom (E).....	121	131	30.9	20.6
II. Nonelectrical machinery:				
United States (W).....	132	126	44.6	34.1
Belgium.....	(¹)	(¹)	1.9	2.3
France.....	(¹)	(¹)	5.6	6.3
Germany (E).....	127	231	20.3	27.4
Italy (E).....	104	390	3.1	5.9
Japan (E).....	93	590	1.2	3.0
United Kingdom (E).....	126	155	23.3	21.0
III. Transport equipment:				
United States (W).....	118	130	36.8	24.8
Belgium.....	(¹)	(¹)	3.1	3.1
France.....	(¹)	(¹)	7.9	11.1
Germany (E).....	96	459	13.3	25.8
Italy (E).....	81	641	2.9	6.7
Japan (W).....	90	447	3.6	6.4
United Kingdom (E).....	118	131	32.4	22.1
IV. Chemicals:				
United States (W).....	103	209	34.3	32.2
Belgium (W).....	105	149	6.7	4.6
France (W).....	81	275	11.9	11.6
Germany (E).....	86	337	20.0	25.4
Italy (E).....	60	618	3.7	5.9
Japan (E).....	66	477	2.5	3.5
United Kingdom (E).....	95	195	20.9	16.8
V. Textiles:				
United States (W).....	97	107	16.1	12.5
Belgium (W).....	93	163	9.2	10.4
France (W).....	77	160	15.7	14.4
Germany (E).....	88	218	7.3	10.5
Italy (E).....	81	219	9.4	12.4
Japan (E).....	86	312	11.2	22.3
United Kingdom.....	107	71	31.1	17.5

¹ Not available.

Source: Table 9 and appendix tables 2-6.

Presently, we shall compare available data on the variables in question between the second quarter of 1961 and 1962. This comparison enables us to observe some of the lagged effects of changes that have taken place in earlier periods and permits us to examine possible future developments. The relevant data are shown in table 12. Information on manufactured exports is not available hence total export figures are given instead.

²¹ Organization for Economic Cooperation and Development, *Main Economic Indicators*, August 1962.

Wages have continued to rise in the countries of continental Europe. In the Common Market countries wages rose on the average by 10 percent between the second quarters of 1961 and 1962 whereas the corresponding increase amounted to 3 percent in the United States and the United Kingdom. Given the relatively small differences between rates of growth of productivity²² as seen from indexes of manufacturing production and available information on employment, it appears that in the same period labor costs fell in the United States and rose in continental Europe. Differences in the indexes of labor costs will be larger if changes between 1960 and 1962 are considered.

The largest increases in labor costs appear to have taken place in France and Germany where the rise in wages was most pronounced and in England which experienced a decline in productivity. Although the squeeze on profit margins continued into 1962 in these countries, the prices of manufactured goods rose also. It should be added that if account is taken of the appreciation of the German mark in March 1961, an upward adjustment of 5 percent becomes necessary in order to arrive at the index of German export prices.

Turning to changes in the value of exports, we find that between the second quarter of 1961 and 1962 exports expanded most in countries with relatively stable prices (Italy, United States, Belgium) while a rise in the prices of manufactured goods in Germany, the United Kingdom, and France was accompanied by lower than average increases in exports. But here again a lag between price changes and exports is apparent. In the case of Germany, where information on export orders is available, we see that, though actual exports increased, new export orders declined again between the second quarter of 1961 and 1962.

SHORT TERM OUTLOOK FOR EXPORTS IN MANUFACTURING

As regards prospective changes in export shares, there are indications for an improvement in the relative position of the United States. Such an improvement would come from the side of labor costs. While in the United States strong pressures for wage increases out-running the rise of productivity are not apparent at the present time, there is plentiful evidence that the wave of wage increases continues in Europe. The origin of these differences can be found in conditions of the labor market, here and abroad.

TABLE 11.—*Export unit values and volumes in manufacturing*

	Index of export unit values, 1961 (1953=100)	Index of export volume, 1961 (1953=100)	Export shares (percent)	
			1953	1961
United States.....	121	131	31.4	24.4
Belgium.....	95	187	7.8	6.9
France.....	97	217	10.9	11.2
Germany.....	109	281	16.0	24.1
Italy.....	80	446	3.9	6.7
Japan.....	95	382	4.3	8.1
United Kingdom.....	114	130	25.7	18.6

Source: Tables 1 and 7.

²² An exception is the United Kingdom where productivity actually declined.

The over 5 percent unemployment in the United States weakens the bargaining power of the labor unions, while serious labor shortages have developed in most of Europe. In each of the Common Market countries, a fall in unemployment has been accompanied by a continuing increase in vacancies in recent years. The labor shortage is most acute in Germany, where the number of vacancies exceeds the number of unemployed six times. Even in Italy, with an unemployment of 1,100,000, shortages have developed in skilled labor.

The unsatisfied demand for skilled labor in Italy indicates that the European labor problem is not solely quantitative but also qualitative. Unemployed or underemployed workers are found, particularly in the south of Europe, but these do not possess the necessary skills and qualifications. Consequently, bottlenecks develop in manufacturing industries that require skilled or semiskilled labor and upward pressures on wages are generated. Not only do labor unions press for higher wages, but employers also often offer wages above contractual rates to lure away workers from other companies. Finally, the continuing rise in living costs provides a further element in wage demands.

Although the governments of various European countries have often appealed for a wage restraint, so far they have had little effect. And frequently the governments themselves acted in contradiction to announced policy. In Germany, for example, the wage demands of the Saar miners were granted despite the increasing deficit of federally owned mines and the Ruhr mineowners were assured that wage increases, if granted, would be financed, in part, from the Federal budget. Also in Italy, the new round of wage increases was begun in the Government-controlled machine-building and metallurgical industries.

TABLE 12.—Changes in some economic variables, 1961–62

	Hourly earnings, second quarter of 1962		Price index of manufactured goods, May 1962		Index of export values, second quarter of 1962
	1960	1961	1960	1961	
	Second quarter = 100		May = 100		1961, second quarter = 100
United States.....	105	102	99.6	100.1	113
Belgium.....	111	108	98.1	98.5	108
France.....	116	108	103.2	100.3	100
Germany ¹	124	113	103.1	101.3	103
Italy.....	113	109	100.5	100.7	116
United Kingdom.....	108	103	104.5	102.3	105

¹ Hourly rates.

² Unadjusted for exchange rate changes.

Sources: Hourly earnings and export values (21). Price index of manufactured goods (6) and (9).

Mention should further be made of the demands of the labor unions, especially in France and Germany, for a larger share of the national product. In the absence of appropriate Government policies, in a tight labor market such claims cannot fail to have an inflationary effect. In England, the trade unions' refusal to cooperate with the Government in implementing an incomes policy is expected to have similar repercussions. Finally, increased strike activity provides an indication of the rising power of the unions in Italy.

Increases in labor costs in recent years have not been fully translated into price rises in the larger countries of continental Europe. In France and in Germany the share of wage costs has risen in most major industries, often necessitating a reduction of dividends and/or a curtailment of reinvestment. Similar developments have been observed in several British and Italian industries. But the squeeze on profits can hardly continue unaltered, and hence further increases in the prices of manufactured goods can be expected.

In the French budget, for example, a price increase of 2 percent is foreseen for 1963. But past experience indicates that the budget estimates are customarily on the low side, thereby creating a reserve for increases in Government expenditures. For 1961 and also for 1962 a price rise of 1.4 percent was foreseen but the implicit GNP deflator rose by 3.1 percent in 1961 and a rise of 3.2 percent is estimated for 1962. Also in Italy, where prices were stable between 1960 and 1962, increased labor costs are expected to lead to higher prices.

We have used the example of German exports to indicate the existence of a lag between export prices and sales. If we add to this the lagged response of prices to labor costs, it follows that the increases in European labor costs experienced in recent years and expected for the near future will benefit American industry in world markets. It is a different question whether the ensuing improvement will be sufficient to restore equilibrium in the U.S. balance of payments and whether we can expect these trends to continue over a longer period.

PROSPECTS FOR THE U.S. BALANCE OF PAYMENTS

Since 1953 export prices in most commodity groups rose faster in the United States than abroad. We have seen that, between 1953 and 1961, the unit value index of U.S. manufactured exports increased by 21 percent, that of the United Kingdom by 14 percent, while average export prices in the other main exporting countries stayed approximately constant. Thus, a reestablishment of the 1953 price relationships would require large increases in foreign prices. Despite the cost-inflationary pressures experienced in Europe, it is questionable whether such price increases would be forthcoming within a short time. And given the export orientation of many European industries, it appears plausible that, as higher prices lead to a slackening of exports, European producers will more firmly resist wage increases exceeding the growth of productivity or, as in Germany, they will attempt to cut down on nonobligatory social benefits presently provided to the workers.

Although reestablishment of balance-of-payments equilibrium in the United States may not require the restoration of the U.S. competitive position as it existed in 1953, these considerations indicate that while an improvement in U.S. competitiveness reduces the balance-of-payments deficit, this will not necessarily disappear in the immediate future. This conclusion is strengthened if we consider that an upswing in the American economy will also lead to higher imports.

It is difficult to foresee prospective changes in competitiveness that will take place over a longer period. In the United States, not only would a reduction of unemployment to 4 percent give rise to greater

pressures for higher wages in certain sectors, but an inflationary settlement or a marked price increase in a key industry can again create an inflationary psychology.

Also, future developments will be influenced by prospective changes in Government policies. One should only recall two important events that have taken place in early 1962 and have influenced price and wage setting in the American and German economies: the success of the administration in stopping a price increase of steel in the United States, and the failure of the Government to induce Volkswagen to rescind its announced price rise in Germany. There is no guarantee that, under changed political and economic conditions, the opposite could not happen.

On the other hand, available information permits us to form an opinion on conditions in the labor market in years to come. Here the United States and Germany offer a sharp contrast. During the fifties the increase of the labor force was larger in Germany than in the United States, but in the coming decade the U.S. labor force is expected to rise at a yearly rate of 1.5 percent, whereas the natural increase of the active population will be nil in Germany. The high unemployment provides a further reserve in the United States, while German unemployment is negligible and the importation of foreign workers possessing the necessary skills becomes increasingly difficult.

A slowing down in the rate of growth of labor force is anticipated in several other European countries, too. And although an increase in labor-force participation rates is often assumed, additional entrants may be motivated only by higher wages. Barring unforeseen developments, the tightness of the labor market can hence be expected to persist in the European economy, while such a situation is not likely to develop in the United States. Thus, other things being equal, cost-inflationary pressures would also be greater in Europe.

CONCLUSION

We have given evidence in this paper of the effects of differential rates of change in labor and material costs on trade patterns. In the United States, the increase of labor costs was especially pronounced in the steel industry and the concomitant rise in steel prices adversely affected the export possibilities of several major industries, such as electrical and nonelectrical machinery, and transport equipment. Correspondingly, the price index of U.S. exports of manufactures rose by 21 percent between 1953 and 1961, as against a 14-percent rise in the United Kingdom and approximately constant prices elsewhere, and the U.S. share in world exports declined from 31.4 percent to 24.4 percent.

Since 1959, however, the competitive position of American industry has shown signs of improvement, inasmuch as cost-inflationary pressures have developed in Europe while labor costs have been relatively stable in the United States. The tightness of the labor market is expected to continue in European countries and this gives promise for further improvements in the relative position of the United States. But the magnitude and the duration of these changes will greatly depend on economic policies followed here and abroad, and a lessening of resistance against inflationary developments in the United States can jeopardize any gains we might experience in our export performance.

SOURCES

NATIONAL PUBLICATIONS

Belgium :

1. Bulletin de Statistique.

France :

2. Annuaire Statistique de la France.
3. Bulletin Mensuel de Statistique.

Germany :

4. Der Aussenhandel der Bundesrepublik Deutschland, Teil 1.
5. Foreign Trade of the federal Republic of Germany.
6. Monatsberichte der deutschen Bundesbank.
7. Preise, Löhne, Wirtschaftsrechnungen, Reihe 8, Teil III.
8. Statistisches Jahrbuch für die Bundesrepublik Deutschland.
9. Wirtschaft und Statistik.

Italy :

10. Statistica Annuale del Comercio con l'Estero.

Japan :

11. Economic Statistics Monthly.
12. Japanese Economic Statistics.

United Kingdom :

13. Report on Overseas Trade.

United States :

14. Economic Report of the President.
15. Monthly Labor Review.
16. Wholesale Prices and Price Indexes.
17. World Trade Information Service, Part 3.

INTERNATIONAL PUBLICATIONS

European Coal and Steel Community :

18. Ninth General Report of the Activities of the Community.

International Labor Office :

19. Annuaire des Statistiques du Travail.
20. International Labour Review.

Organization for Economic Cooperation and Development :

21. Main Economic Indicators.
22. General Statistics.
23. Foreign Trade Statistics.

United Nations :

24. Economic Survey for Europe in 1958.
25. Monthly Bulletin of Statistics.

APPENDIX TABLE 1

Exports of base metals (SITC 67-68)

	United States	Belgium-Luxembourg	France	Germany	Italy	Japan	United Kingdom	Total of 7 countries
	Million dollars							
1953.....	625	699	523	457	55	157	548	3,064
1954.....	678	688	517	480	52	209	540	3,164
1955.....	894	900	735	582	85	325	647	4,168
1956.....	1,125	1,087	717	861	137	274	773	4,974
1957.....	1,423	1,046	745	1,116	157	251	866	5,603
1958.....	901	949	743	971	173	283	787	4,807
1959.....	634	1,008	890	1,165	179	280	852	5,008
1960.....	1,197	1,251	1,005	1,487	227	414	927	6,508
1961.....	936	1,164	1,017	1,551	195	408	935	6,206
	Percent							
1953.....	20.4	22.8	17.1	14.9	1.8	5.1	17.9	100
1954.....	21.4	21.7	16.3	15.2	1.6	6.6	17.1	100
1955.....	21.4	21.6	17.6	14.0	2.0	7.8	15.5	100
1956.....	22.6	21.9	14.4	17.3	2.8	5.5	15.5	100
1957.....	25.4	18.7	13.3	19.9	2.8	4.5	15.5	100
1958.....	18.7	19.7	15.5	20.2	3.6	5.9	16.4	100
1959.....	12.7	20.1	17.8	23.3	3.6	5.6	17.0	100
1960.....	18.5	19.4	15.6	23.0	3.5	6.4	13.6	100
1961.....	15.1	18.8	16.4	25.0	3.1	6.6	15.0	100

Source: 23.

APPENDIX TABLE 2

Exports of electrical machinery (SITC 27)

	United States	Belgium-Luxembourg	France	Germany	Italy	Japan	United Kingdom	Total of 7 countries
	Million dollars							
1953.....	567	66	116	276	39	15	482	1,561
1954.....	540	63	136	367	39	8	476	1,629
1955.....	582	86	146	449	45	31	537	1,876
1956.....	695	98	137	543	43	51	608	2,175
1957.....	752	102	163	642	51	78	636	2,424
1958.....	735	114	200	668	62	99	626	2,504
1959.....	722	97	209	780	61	198	649	2,716
1960.....	739	114	263	842	101	275	655	2,989
1961.....	955	132	319	1,022	167	337	760	3,692
	Percent							
1953.....	36.3	4.2	7.4	17.7	2.5	1.0	30.9	100
1954.....	33.1	3.9	8.3	22.5	2.4	.5	29.2	100
1955.....	31.0	4.6	7.8	23.9	2.4	1.7	23.6	100
1956.....	32.0	4.5	6.3	25.0	2.0	2.3	28.0	100
1957.....	31.0	4.2	6.7	26.5	2.1	3.2	26.2	100
1958.....	29.3	4.5	8.0	26.7	2.5	4.0	25.0	100
1959.....	26.6	3.6	7.7	28.7	2.2	9.2	23.9	100
1960.....	24.7	3.8	8.8	28.2	3.4	9.2	21.9	100
1961.....	25.9	3.6	8.6	27.7	4.5	9.1	20.6	100

Source: (23)

APPENDIX TABLE 3

Exports of machinery other than electrical (SITC-71)

	United States	Belgium-Luxembourg	France	Germany	Italy	Japan	United Kingdom	Total of 7 countries
Million dollars								
1953.....	2,129	89	266	968	148	57	1,112	4,769
1954.....	2,016	87	254	1,043	149	101	1,142	4,792
1955.....	2,210	101	282	1,190	190	97	1,288	5,358
1956.....	2,754	118	278	1,444	225	117	1,410	6,346
1957.....	3,217	144	329	1,748	282	128	1,571	7,419
1958.....	2,887	151	369	1,886	307	134	1,588	7,322
1959.....	2,907	152	419	1,928	338	170	1,752	7,666
1960.....	3,315	190	563	2,255	516	227	1,993	9,059
1961.....	3,532	240	650	2,833	613	313	2,172	10,353
Percent								
1953.....	44.6	1.9	5.6	20.3	3.1	1.2	23.3	100
1954.....	42.1	1.8	5.3	21.8	3.1	2.1	23.8	100
1955.....	41.2	1.9	5.3	22.2	3.5	1.8	24.0	100
1956.....	43.4	1.9	4.4	22.8	3.5	1.8	22.2	100
1957.....	43.4	1.9	4.4	23.6	3.8	1.7	21.2	100
1958.....	39.4	2.1	5.0	25.8	4.2	1.8	21.7	100
1959.....	37.9	2.0	5.5	25.1	4.4	2.2	22.9	100
1960.....	36.6	2.1	6.2	24.9	5.7	2.5	22.0	100
1961.....	34.1	2.3	6.3	27.4	5.9	3.0	21.0	100

Source: 23.

APPENDIX TABLE 4

Exports of transport equipment (SITC-73)

	United States	Belgium-Luxembourg	France	Germany	Italy	Japan	United Kingdom	Total of 7 countries
Million dollars								
1953.....	1,184	99	255	429	94	117	1,043	3,221
1954.....	1,383	109	324	631	109	78	1,126	3,760
1955.....	1,498	122	358	817	136	119	1,208	4,258
1956.....	1,682	147	383	987	187	316	1,432	5,134
1957.....	1,804	137	495	1,171	244	424	1,469	5,744
1958.....	1,561	162	596	1,403	312	395	1,586	6,015
1959.....	1,479	178	743	1,575	359	442	1,597	6,373
1960.....	1,892	135	869	1,853	400	437	1,619	7,255
1961.....	1,817	224	813	1,890	488	470	1,621	7,323
Percent								
1953.....	36.8	3.1	7.9	13.3	2.9	3.6	32.4	100
1954.....	36.8	2.9	8.6	16.8	2.9	2.1	29.9	100
1955.....	35.2	2.9	8.4	19.2	3.2	2.8	28.4	100
1956.....	32.8	2.9	7.5	19.2	3.6	6.2	27.9	100
1957.....	31.4	2.4	8.6	20.4	4.2	7.4	25.6	100
1958.....	26.0	2.7	9.9	23.3	5.2	6.6	26.3	100
1959.....	23.2	2.8	11.7	24.7	5.6	6.9	25.1	100
1960.....	26.1	2.5	12.0	25.5	5.5	6.0	22.3	100
1961.....	24.8	3.1	11.1	25.8	6.7	6.4	22.1	100

Source: 23.

APPENDIX TABLE 5
Exports of chemicals (SITC-5)

	United States	Belgium-Luxembourg	France	Germany	Italy	Japan	United Kingdom	Total of 7 countries
Million dollars								
1953.....	818	160	284	477	87	60	497	2,383
1954.....	1,002	174	336	605	111	79	571	2,878
1955.....	1,107	186	360	680	127	94	652	3,206
1956.....	1,260	205	367	778	152	107	685	3,554
1957.....	1,401	219	414	903	156	126	749	3,968
1958.....	1,362	231	429	940	169	138	737	4,006
1959.....	1,502	258	472	1,105	208	167	821	4,533
1960.....	1,701	253	593	1,260	262	170	886	5,125
1961.....	1,755	249	633	1,384	323	189	917	5,450
Percent								
1953.....	34.3	6.7	11.9	20.0	3.7	2.5	20.9	100
1954.....	34.8	6.0	11.7	21.0	3.9	2.7	19.8	100
1955.....	34.5	5.8	11.2	21.2	4.0	2.9	20.3	100
1956.....	35.5	5.8	10.3	21.9	4.3	3.0	19.3	100
1957.....	35.3	5.5	10.4	22.8	3.9	3.2	18.9	100
1958.....	34.0	5.8	10.7	23.5	4.2	3.4	18.4	100
1959.....	33.1	5.7	10.4	24.4	4.6	3.7	18.1	100
1960.....	33.2	4.9	11.6	24.6	5.1	3.3	17.3	100
1961.....	32.2	4.6	11.6	25.4	5.9	3.5	16.8	100

Source: 23.

APPENDIX TABLE 6
Exports of textiles (SITC-65)

	United States	Belgium-Luxembourg	France	Germany	Italy	Japan	United Kingdom	Total of 7 countries
Million dollars								
1953.....	474	270	462	216	277	327	913	2,939
1954.....	460	292	498	268	263	550	911	3,242
1955.....	455	294	469	300	275	585	870	3,248
1956.....	453	321	418	300	300	693	827	3,312
1957.....	476	336	437	323	334	815	844	3,565
1958.....	441	292	399	303	299	705	714	3,153
1959.....	457	326	439	345	348	758	695	3,368
1960.....	493	385	557	395	440	924	731	3,925
1961.....	492	410	567	415	490	877	690	3,941
Percent								
1953.....	16.1	9.2	15.7	7.3	9.4	11.1	31.1	100
1954.....	14.2	9.0	15.4	8.3	8.1	17.0	28.1	100
1955.....	14.0	9.1	14.4	9.2	8.5	18.0	26.7	100
1956.....	13.7	9.7	12.6	9.1	9.1	20.9	25.0	100
1957.....	13.4	9.4	12.3	9.1	9.4	22.9	23.7	100
1958.....	14.0	9.3	12.7	9.6	9.5	22.4	22.5	100
1959.....	13.6	9.7	13.0	10.2	10.3	22.5	20.6	100
1960.....	12.6	9.8	14.2	10.1	11.2	23.5	18.6	100
1961.....	12.5	10.4	14.4	10.5	12.4	22.3	17.5	100

Source: 23.

APPENDIX TABLE 7

Exports of other manufactures

	United States	Belgium-Luxembourg	France	Germany	Italy	Japan	United Kingdom	Total of 7 countries
	Million dollars							
1953.....	1,365	401	576	839	183	255	1,281	4,900
1954.....	1,398	422	640	1,028	224	364	1,313	5,389
1955.....	1,575	523	727	1,232	291	493	1,484	6,325
1956.....	1,749	589	714	1,408	328	624	1,602	7,014
1957.....	1,943	584	829	1,569	403	716	1,577	7,621
1958.....	1,885	587	881	1,604	413	756	1,487	7,613
1959.....	1,929	711	1,004	1,782	531	1,017	1,498	8,472
1960.....	1,996	690	1,212	2,038	755	1,169	1,506	9,368
1961.....	1,860	754	1,212	2,113	840	1,168	1,545	9,492
	Percent							
1953.....	27.9	8.2	11.7	17.2	3.7	5.2	26.1	100
1954.....	25.9	7.8	11.9	19.1	4.2	6.7	24.4	100
1955.....	24.9	8.3	11.5	19.5	4.6	7.8	23.4	100
1956.....	24.9	8.4	10.2	20.1	4.7	8.9	22.8	100
1957.....	25.5	7.7	10.9	20.6	5.3	9.4	20.6	100
1958.....	24.8	7.7	11.6	21.1	5.4	9.9	19.5	100
1959.....	22.8	8.4	11.8	21.0	6.3	12.0	17.7	100
1960.....	21.3	7.3	12.9	21.8	8.1	12.5	16.1	100
1961.....	19.6	7.9	12.8	22.3	8.8	12.3	16.3	100

Source: 23.

IMPLICATIONS OF STRUCTURAL CHANGES
IN COMMODITY TRADE

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IMPLICATION OF STRUCTURAL CHANGES IN COMMODITY TRADE

INTRODUCTION

In analyses of the U.S. balance-of-payments problem, there has been much talk of a deterioration in the U.S. competitive position in world export markets. Although a number of different concepts have been suggested as measures of shifts in a country's competitive position, probably the simplest and most commonly used indicator of such changes is merely the change in a country's share of the export market.¹ There is—it should be emphasized at the outset—no necessary connection between a decline in a nation's market share and the emergence of balance-of-payment difficulties for the country. For example, the exports of a country may fall because of an equivalent reduction in foreign lending by the country. Similarly, trade between a country and the rest of the world may not increase as rapidly as trade within the rest of the world. If, however, the decline in a nation's share of the world export market is not balanced by a corresponding relative decline in its nonaccommodating payment activities, then a balance-of-payments deficit emerges.

It is this latter situation which has developed in the United States. Compared to the last half of the 1940's, America's exports of goods and services have failed to rise as rapidly as her imports of goods and services plus her military expenditures abroad. Since a surplus in the balance of payments existed in this early period, some movement in this direction was desirable. But, in relation to the fact that long-term private and Government capital outflows have declined only moderately, the shift has become too large. A disequilibrium condition in the balance of payments has manifested itself frequently since the early fifties, and has become especially severe since 1958.

THE DECLINE IN THE U.S. COMPETITIVE POSITION

Although there will be some discussion of factors causing the deficit as well as suggestions concerning how the problem may be solved, the main purpose of this paper is to investigate the recent behavior of the U.S. market position in the export field.² In connection with this, the merchandise exports and imports of nine leading industrial countries; namely, Belgium-Luxembourg, Canada, France, Germany, Italy, Japan, Sweden, the United Kingdom, and the United States, were classified into nine commodity classes for the years 1955-60 (tables

¹ R. N. Cooper, "The Competitive Position of the United States," in Seymour Harris, editor, "The Dollar in Crisis" (New York: Harcourt, Brace & World, Inc., 1961), pp. 138-140.

² For an excellent study of the 1953-58 period, see Anne Romanis, "Relative Growth of Exports of Manufactures of United States and Other Industrial Countries," International Monetary Fund Staff Papers, VII 2 (May 1961).

A-5 and A-6). The same basis was used in this study as in a prior one by the author for the years 1900-1954.³

Exports of the included countries accounted for 52 percent of world exports during the period 1955-60, a figure that is a few percentage points lower than the longrun average from 1913 to 1952. These countries also accounted for 47.8 percent of world imports between 1955 and 1960. This figure confirms the gradual decline that has occurred since 1913 in the import market share for these countries. The U.S. share of world exports dropped from 16.5 to 15.9 percent between 1955 and 1960, while our share of world imports declined from 11.4 to 10.7 percent for the same years.

Although the market share of all world exports that the countries in the study possess is not especially large, their share of the world exports of manufactures (which is of special interest to us here) is much more significant. In 1957, for example, this figure was 87.5 percent. Because this ratio has remained approximately the same since 1900, the behavior of the market share of any one of the nine countries in the total exports of manufactured goods of these countries is a good indicator of the behavior of the country's share in the world market.

Table 1 indicates from 1900 to 1960 the share of total exports and imports possessed by each of the industrial countries included in the study. Within the last 25 years, the most striking general change in export shares has been the sharp rise between 1938 and 1952 in the United States and Canadian market shares, at the expense of Germany, Japan, and Italy, and then a reversal of this movement between 1952 and 1960. The damage to the U.S. competitive export position in the postwar period occurred between 1952 and 1955 and again between 1957 and 1959. The proportion of U.S. imports to the total imports of the countries included in the study declines much less between 1952 and 1960 than the corresponding export ratios. Between 1957 and 1959 it actually rose and reached its 1952 level.

³ The commodity classes are food, drink, and tobacco; raw materials; metals; machinery; vehicles; chemicals; textiles; miscellaneous manufactures; and unspecified commodities. The classification system used is the same as that employed in the author's paper, "The Commodity Composition of Trade: Selected Industrial Countries, 1900-1954," the Review of Economics and Statistics, XL (Supplement: February 1958).

TABLE 1.—Percentage distribution of trade by country, selected years, 1900–60¹

EXPORTS													
	1900	1913	1928	1938	1952	1952 ²	1954	1955	1956	1957	1958	1959	1960
Belgium-Luxembourg	6.3	6.2	4.8	6.1	5.7	5.8	5.4	5.2	5.4	5.0	4.9	5.2	5.4
Canada	2.6	2.9	7.3	6.9	10.7	11.0	9.6	9.4	9.2	8.7	9.1	9.2	8.2
France	13.8	12.1	11.3	7.4	9.1	9.3	9.8	10.2	8.4	8.5	9.1	9.5	10.1
Germany	18.2	21.9	15.9	18.0	9.4	9.6	12.1	12.9	13.5	14.4	15.6	16.5	16.7
Italy	4.4	4.4	4.2	4.6	3.3	3.4	3.8	3.9	4.0	4.3	4.5	4.9	5.4
Japan	1.7	2.8	4.8	6.0	2.9	3.1	3.8	4.2	4.6	4.8	5.1	5.8	5.9
Sweden	1.8	2.0	2.3	3.9	3.7	3.8	3.7	3.7	3.6	3.6	3.7	3.7	3.8
Switzerland	2.8	2.4	2.2	2.5	2.7								
United Kingdom	24.6	23.2	19.4	19.0	17.2	17.7	17.5	17.3	16.4	15.7	16.1	15.8	14.6
United States	23.8	22.1	27.8	25.6	35.2	36.3	34.3	32.7	34.8	34.8	31.6	29.4	29.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

IMPORTS													
	1900	1913	1928	1938	1952	1952 ²	1954	1955	1956	1957	1958	1959	1960
Belgium-Luxembourg	6.3	7.0	4.3	5.5	5.7	5.9	5.9	5.8	6.0	5.8	5.7	5.7	5.9
Canada	2.5	5.2	6.0	4.9	10.0	10.2	10.2	10.2	11.0	10.3	10.1	10.2	8.8
France	13.5	13.0	10.3	9.9	10.3	10.7	10.2	10.0	10.6	10.7	10.6	8.8	9.7
Germany	19.6	21.2	16.8	16.4	9.1	9.4	11.0	12.3	12.6	13.1	14.0	14.7	15.6
Italy	4.8	5.6	5.8	4.5	5.5	5.7	5.8	5.8	6.0	6.4	6.0	5.8	7.3
Japan	2.1	2.9	5.1	5.5	4.8	5.0	5.8	5.3	6.2	7.5	5.8	6.2	7.0
Sweden	2.1	1.8	2.3	4.0	4.1	4.3	4.3	4.2	4.2	4.3	4.5	4.2	4.5
Switzerland	3.2	3.0	2.7	2.8	2.9								
United Kingdom	33.3	25.8	26.3	31.9	22.4	22.9	22.8	22.5	19.9	19.4	19.4	18.8	18.9
United States	12.6	14.5	20.4	14.6	25.2	25.9	24.0	23.8	23.5	22.4	23.9	25.6	22.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ These percentage distributions are shown by commodity groups for 1955–60 in tables A-3 and A-4.

² Switzerland is excluded from the percentages below and also from the calculations for all later years.

NOTE.—Columns may not add exactly to 100.0 because of rounding.

The relative decline in the U.S. export share of manufactured goods in the postwar period is even sharper than the worsening of our overall export position. In 1952, U.S. exports of manufactured commodities constituted 35.3 percent of the total manufactured exports of the countries included in the study, but only 26.5 percent in 1960. Since manufactured exports have grown in relative importance in terms of the composition of U.S. exports, and now amount to about 75 percent of our exports, the behavior of our share in this field is most important both for our overall competitive position and our balance-of-payments position. Not only are we heavily committed to exporting manufactured goods but, as table 2 shows, these goods have continued to grow in importance relative to total export trade of the industrial countries. Manufactured goods constituted 72.8 percent of the exports of the listed industrial nations in 1960 as contrasted with 68.2 and 66.5 percent in 1952 and 1938, respectively. It is most interesting to note that on the import side manufactured commodities also have become relatively more significant. The two groups, food, drink, and tobacco and raw materials, constituted about 70 percent of all imports from 1900 through 1952. But there has been a sharp drop to less than 60 percent in 1960.

TABLE 2.—Percentage distribution of trade by commodity group, selected years, 1900-60¹

EXPORTS												
	1900	1913	1928	1938	1952	1954 ²	1955	1956	1957	1958	1959	1960
Food, drink, and tobacco.....	21.0	15.6	15.5	13.0	12.8	11.0	10.9	11.1	10.5	11.2	10.9	10.3
Raw materials.....	24.2	23.9	23.2	20.5	19.0	19.9	19.4	19.4	19.6	16.7	16.6	16.9
Metals.....	9.7	11.5	10.6	13.6	13.6	12.0	14.5	14.5	14.7	13.7	13.6	14.6
Machinery.....	4.5	6.2	7.7	12.4	18.5	15.4	15.5	16.1	16.8	17.9	17.8	18.1
Vehicles.....	2.2	2.9	5.8	8.1	9.3	12.9	12.7	13.4	13.0	14.4	13.9	13.8
Chemicals.....	3.9	4.0	4.2	6.0	5.3	6.0	6.7	6.5	6.5	6.9	7.5	7.2
Textiles.....	19.9	19.6	18.0	12.0	8.3	8.3	7.7	6.9	6.9	6.5	6.8	6.9
Miscellaneous.....	13.5	14.6	13.8	13.5	12.3	13.5	10.9	10.6	10.5	11.5	12.0	11.3
Unspecified.....	1.1	1.7	1.2	0.9	0.9	1.0	1.7	1.6	1.5	1.2	0.9	1.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

IMPORTS												
	1900	1913	1928	1938	1952	1954 ²	1955	1956	1957	1958	1959	1960
Food, drink, and tobacco.....	33.3	30.6	32.0	33.4	27.3	28.7	25.8	24.6	23.5	25.8	23.8	21.7
Raw materials.....	39.1	39.8	39.9	40.2	42.2	40.2	40.6	40.3	41.3	37.1	35.8	35.8
Metals.....	6.3	7.2	6.7	7.6	10.2	8.6	10.1	10.6	10.0	8.7	9.6	10.8
Machinery.....	1.8	2.1	2.6	3.5	6.1	6.4	6.3	7.0	7.2	7.9	8.3	8.7
Vehicles.....	.4	.9	1.7	1.6	2.9	3.0	3.2	3.5	3.8	4.6	5.1	5.0
Chemicals.....	3.7	4.3	2.4	3.1	2.6	3.2	3.4	3.5	3.5	3.8	4.1	4.4
Textiles.....	8.1	6.8	7.1	4.1	3.3	3.3	3.4	3.4	3.4	3.6	4.0	4.3
Miscellaneous.....	7.9	8.0	7.2	6.2	4.8	5.7	6.1	6.0	6.1	7.2	8.1	7.9
Unspecified.....	-.6	.3	.4	.3	.6	.8	1.0	1.1	1.1	1.2	1.2	1.4
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ These percentage distributions are shown by country for 1955-60 in tables A-1 and A-2.

² Switzerland is excluded from 1954 and all later years.

NOTE.—Columns may not add exactly to 100.0 because of rounding.

THE EFFECT OF COMPOSITIONAL SHIFTS IN WORLD TRADE

Within the general class of manufactured exports there also have been some important shifts. The machinery class, quite unlike its past behavior, actually declined slightly in relative importance between 1952 and 1960. However, vehicles expanded very sharply, and chemicals increased somewhat. The textile and miscellaneous groups continued to decline, and the metals class remained stable.

The significance of these shifts in the compositional structural of total manufactured exports on the U.S. balance-of-payments position can be given more precision by dividing the change in a country's market share into a "structural" component, a component indicating the importance of market share changes in the individual commodity classes, and a component reflecting the interaction of these two factors.⁴ The "structural" portion of a shift in a nation's total market share measures the influence of the change in the composition of world demand for the various commodity groups. For example, between 1928

⁴ The formula for dividing the change in a country's market share of a specified group of commodity classes into these components is as follows:

$$\frac{\frac{n_{11}}{v_1} - \frac{n_{01}}{v_0}}{v_1} = \frac{n_{11}}{v_1} - \frac{n_{01}}{v_0} + \frac{n_{10}}{v_1} - \frac{n_{10}}{v_1} + \frac{n_{11}}{v_1} - \frac{n_{11}}{v_1} - \frac{n_{10}}{v_1} + \frac{n_{10}}{v_1} + \frac{n_{11}}{v_1} - \frac{n_{10}}{v_1} + \frac{n_{11}}{v_1} - \frac{n_{10}}{v_1} + \frac{n_{11}}{v_1} - \frac{n_{10}}{v_1}$$

where the superscripts 0 and 1 designate the time period; n is the number of commodity classes; s_i is the country's market share of any commodity group; v_i is the value for all countries of any commodity class; and V is the value for all countries of all commodity classes. The difference between the first two terms is the "structural" component, whereas the difference between the third and fourth terms is the so-called competitive component using beginning year weights. The last four terms measure the interaction between these two components. See Baldwin, *op. cit.* for a more detailed discussion of the decomposition problem.

and 1952 America's market share of manufactured exports would have increased 5.6 percent even if we just maintained the same market share in each commodity class of manufactured goods as in 1928 (table 3). The main reason for this was that the United States relied more heavily upon machinery and vehicles—the two most rapidly expanding commodity groups in total world demand for manufacturers—than the rest of the industrial countries. This factor also worked in America's favor between 1900 and 1928. In addition, in both these periods we gained in terms of individual market shares.

TABLE 3.—Changes in percentage shares of exports of manufactures for selected countries

	Canada	France	Germany	Japan	Italy	United Kingdom	United States
1928-52							
Structural change.....	0.3	-2.2	2.1	-1.6	-1.3	-2.6	5.6
Change in shares.....	2.0	-.9	-4.0	.6	.1	-1.0	1.3
Interaction component.....	.4	-.6	-6.9	.8	.4	-.6	6.1
Total change.....	2.7	-3.7	-8.8	-2.2	-.8	-4.2	13.0
1952-60							
Structural change.....	0.3	-0.1	0.1	-0.3	-0.1	0.3	-0.1
Change in shares.....	-.7	.7	4.6	2.3	1.4	-2.8	-5.3
Interaction component.....	-.9	.5	3.9	1.5	1.0	-2.3	-3.4
Total change.....	-1.3	1.1	8.6	3.5	2.3	-4.8	-8.8
1952-56							
Structural change.....	0.3	-2.2	0.1	-0.2	-0.1	0.3	-0.5
Change in shares.....	-.6	-.7	3.8	1.7	.5	-1.6	-2.8
Interaction component.....	-.4	1.8	1.2	.5	1.2	-.9	-.2
Total change.....	-.7	-1.1	5.1	2.0	1.6	-2.2	-3.1
1956-60							
Structural change.....	-0.1	-0.1	0.2	-0.1	0	0	-0.3
Change in shares.....	-.4	1.7	2.5	1.2	1.3	-2.0	-4.5
Interaction component.....	-.1	.6	.8	.4	.4	-.6	-1.5
Total change.....	-.6	2.2	3.5	1.5	1.7	-2.6	-5.7

The effect of these component changes during the period, 1952-60 (table 3) has been quite different. The structural element actually worked slightly against us, largely because our largest export, machinery, has not grown as rapidly in world demand as the rest of the manufacturing classes combined. In addition, there has been a substantial weakening in our market position within the group of commodity classes. For none of the countries listed in table 3 has the "structural" component been significant in accounting for their changed market position. Unlike some previous periods, the so-called competitive component dominated market shifts in the 1952-60 interval.

RECENT CHANGES IN RELATION TO PAST TRENDS

When one views the recent changes in the U.S. trade position in terms of the broad shifts since 1900, the developments of the last few years seem less surprising. Instead, the period between 1938 and 1952 stands out as the really exceptional interval. For it was between these years that the United States made a spectacular increase in its share of manufactured exports, from 22.2 to 35.2 percent. The favorable shift in the structure of world demand accounts for 2.1 of these percentage points, the change in market shares to 2.9 points, and the interaction of the two to 8 percentage points. Clearly, the fact that two of our most vigorous competitors, Germany and Italy, had suffered military defeat in World War II, and because of this were slow in restoring their international economic position, accounts for a large part of the remarkable trading gains of the United States between 1938 and 1952. New customers turned to the United States after the war, not only because goods were not as readily available from previous sources of supply, but also because the United States was able to get a substantial innovational jump on most of her vigorous competitors. We were in a much better position than Germany, Japan, France, and Italy to introduce quickly into commercial production the great technological advances that were developed during the war. However, as these countries successfully met such immediate post-war levels, the transitory nature of the new U.S. position began to show up in the figures on relative shares.

The pattern of relative shares that has been emerging is not, however, just a return to the prewar situation. The United States is being subjected to increasing competitive pressures in those markets where she has been most important; namely, machinery and vehicles. Japan, for example, in the prewar period relied mainly upon expansion in the textile field to enlarge her export market share. The United Kingdom, with its traditionally large share of the textile market, bore the brunt of the Japanese trade expansion. But now countries like Japan and Italy, in addition to expanding their already sizable share of the textile market, are becoming important, in the machinery and vehicles markets. France and Germany are also continuing to expand in these fields. This means that the United States can now expect to feel more sharply the competitive pressure from countries such as Japan and Italy. What has been happening to the total export market share of the United Kingdom for many years, mainly because of her relative decline in the textile field, may now happen to the United States because of our relative decline in the machinery and vehicle fields.

DIFFICULTIES OF A "NO ADJUSTMENT" POLICY

The remarkable expansion of U.S. exports after the war—quite understandably—was not accompanied by a similar expansion in private payments to foreign countries for goods and services or long-term securities. Had it not been for unilateral transfers by our Government, the liquidation of accumulated dollar balances by foreigners and the sales of gold by foreigners, the very large increase in our exports of goods and services could not have taken place under existing exchange rate relationships. One might have expected, therefore,

that, as the U.S. export position weakened, equilibrium would have been restored by a reduction in government grants and the elimination of the need by foreigners to export gold or liquidate dollar holdings. But the pendulum has swung too far in the other direction. On the basis of reasons quite different from the ones that prompted these payments in the late forties, we have continued to maintain about the same level of military expenditures abroad and net government grants and capital transactions. However, imports of goods and services and private outflows of capital have increased very sharply since the late forties. As a result, foreigners have been able to restore and increase their dollar holdings and stocks of gold. On the payments side, the United States is more than living up to the receipts position based upon the immediate postwar increase in exports.

On the basis of the manner in which the balance-of-payments mechanism has been permitted to operate in the United States, it is not at all surprising that a disturbing disequilibrium condition has prevailed at least since 1958. We have permitted ourselves to be put into a position where almost no adjustment process appears politically acceptable. Deflation of the economy as a means of correcting a deficit has been rejected by our Government (as well as most other governments) because of the unemployment pressures associated with this method. However, unlike most other governments, we also seem to reject exchange rate changes as an adjustment method. Eliminating both of these involves a rejection of the price system as a corrective instrument. But, we also are unprepared to use quantitative methods on any extensive basis to force a reduction in foreign purchases by Americans. We are left, therefore, with a list of measures that boil down to halfhearted attempts to subsidize particular industries and restrict others. These methods suffer from the efficiency objection to quantitative controls. Moreover, one is not very sure about their effectiveness in narrowing the balance-of-payments gap.

For the economy, which must be prepared to face increasing competition not only from the Common Market countries but also from rapidly industrializing nations such as Japan and India (to say nothing of the Communist bloc), a position that amounts to a no-adjustment policy is little short of alarming. Remarkable economic transformations are taking place throughout the world and the United States must adopt a policy that insures we adapt to changes in international economic circumstances as they occur. Adjustment is always somewhat painful, but the alternative is either a much more painful adjustment later or a move toward autarchy, less rapid growth, and a substantial reduction in our international economic and political influence. Specifically, if we wish to maintain our international economic viability, we should not only move toward freer trade but be prepared to make changes in our exchange rate. There is proper room for disagreeing over the timing and effectiveness of exchange rate changes, but to rule out (as is frequently done) the possibility of such changes on the basis of vague and unsupported notions about national prestige is a matter of deep concern.

APPENDIX

TABLE A-1.—Percentage distribution of exports by commodity group, 1955-60
FOOD, DRINK, AND TOBACCO

	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan	Total
1955-----	13.7	20.5	6.1	3.9	15.7	2.5	2.8	22.3	6.9	10.9
1956-----	14.2	22.4	5.9	4.3	14.4	2.5	3.2	22.7	7.3	11.1
1957-----	13.0	19.3	6.4	4.0	15.1	2.1	4.1	23.9	6.5	10.5
1958-----	15.3	22.8	6.3	5.3	13.1	2.2	3.5	20.2	8.4	11.2
1959-----	16.5	20.5	5.9	4.9	11.9	2.2	3.5	18.5	7.7	10.9
1960-----	15.5	18.3	5.7	4.5	13.3	2.0	3.0	15.5	6.7	10.3
RAW MATERIAL										
1955-----	19.3	47.5	9.4	17.3	17.6	12.7	44.7	16.4	7.4	19.4
1956-----	21.0	46.2	9.4	15.7	16.8	11.9	42.4	14.3	6.9	19.4
1957-----	23.0	48.8	8.8	16.1	15.1	11.0	39.2	12.6	6.0	19.6
1958-----	17.5	46.4	8.0	14.1	13.9	9.6	35.3	12.0	5.2	16.7
1959-----	17.5	48.3	8.0	13.9	13.5	9.4	34.0	12.6	5.2	16.6
1960-----	19.6	50.4	7.7	13.5	12.7	9.2	34.0	11.1	4.9	16.9
METAL MANUFACTURES										
1955-----	9.4	15.3	14.3	38.9	18.2	14.9	12.6	7.1	19.5	14.5
1956-----	8.9	15.0	15.2	39.8	18.8	17.0	13.4	9.3	13.8	14.5
1957-----	10.0	15.0	15.2	38.7	18.2	18.0	12.6	9.2	11.4	14.7
1958-----	8.7	12.8	13.9	36.9	17.8	15.7	12.9	9.9	13.7	13.7
1959-----	6.9	14.0	14.0	37.2	18.9	16.4	13.6	9.4	11.8	13.6
1960-----	8.8	15.9	13.8	39.2	17.5	17.4	13.4	9.5	14.1	14.6
MACHINERY										
1955-----	17.6	4.0	20.4	7.0	8.7	25.8	13.4	11.7	6.5	15.5
1956-----	18.1	3.8	21.0	7.1	8.8	26.0	14.8	12.0	6.8	16.1
1957-----	18.5	4.5	21.5	8.0	9.4	27.2	15.9	12.6	7.3	16.8
1958-----	20.1	4.9	22.3	9.1	10.9	28.3	16.2	14.2	8.2	17.9
1959-----	20.0	5.5	23.1	7.9	11.0	27.2	16.5	13.1	10.8	17.8
1960-----	19.3	5.6	23.6	8.3	11.9	26.9	17.5	15.9	12.5	18.1
VEHICLES										
1955-----	17.6	2.4	16.9	4.6	7.8	14.7	8.6	8.4	6.0	12.7
1956-----	17.1	2.8	17.9	4.9	8.8	14.7	8.3	9.2	12.8	13.4
1957-----	14.8	3.0	18.0	4.5	10.1	14.6	10.9	10.2	15.1	13.0
1958-----	15.6	4.0	20.1	5.6	11.9	17.0	13.8	12.8	13.9	14.4
1959-----	14.6	2.1	19.9	5.7	13.6	16.8	13.4	13.0	13.0	13.9
1960-----	15.2	2.0	19.5	5.1	12.9	17.2	12.7	12.1	10.9	13.8
CHEMICALS										
1955-----	6.6	5.6	6.5	6.5	5.9	10.7	2.3	6.2	4.5	6.7
1956-----	6.2	5.4	6.3	6.4	6.3	10.1	2.4	6.4	4.1	6.5
1957-----	6.3	4.7	6.6	6.6	6.4	10.1	2.2	5.6	4.3	6.5
1958-----	7.1	4.5	6.8	7.3	6.6	10.3	2.5	6.1	4.6	6.9
1959-----	8.0	4.5	7.5	7.7	6.6	10.8	2.8	6.6	4.7	7.5
1960-----	7.7	3.3	7.7	6.3	6.9	10.6	2.7	6.8	4.0	7.2

TABLE A-1.—Percentage distribution of exports by commodity group, 1955-60—
Continued

TEXTILES

	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan	Total
1955-----	3.5	0.4	11.0	10.6	11.1	5.6	0.9	16.7	34.2	7.7
1956-----	2.9	.4	9.8	10.3	10.7	4.9	.9	15.9	32.6	6.9
1957-----	2.7	.4	9.5	10.7	10.5	4.6	1.0	15.5	33.5	6.9
1958-----	2.9	.4	8.4	9.8	9.6	4.2	1.0	14.4	29.6	6.5
1959-----	3.1	.4	7.9	10.1	10.2	4.3	1.2	15.3	27.6	6.8
1960-----	2.9	.7	7.7	10.5	10.4	4.2	1.4	16.3	27.9	6.9

MISCELLANEOUS MANUFACTURES

1955-----	10.1	3.6	12.4	10.0	12.0	13.1	14.7	11.1	15.0	10.9
1956-----	9.7	3.4	11.8	10.2	12.5	12.5	14.6	10.2	15.6	10.6
1957-----	9.7	3.2	11.4	10.2	12.5	12.0	14.2	10.4	16.0	10.5
1958-----	11.6	3.2	11.9	10.7	13.3	12.4	14.9	10.4	17.0	11.5
1959-----	12.3	3.5	11.7	11.9	13.5	12.6	15.1	11.5	19.3	12.0
1960-----	9.9	3.5	12.1	11.2	13.6	11.5	15.4	12.8	18.8	11.3

UNSPECIFIED

1955-----	2.2	0.6	3.0	1.2	3.1	0	0	0	0	1.7
1956-----	2.0	.7	2.7	1.3	2.8	.3	0	0	0	1.6
1957-----	2.0	1.0	2.5	1.2	2.7	.3	0	0	0	1.5
1958-----	1.2	.9	2.4	1.3	2.8	.3	0	0	0	1.2
1959-----	1.2	1.0	2.1	.6	.8	.3	0	0	0	.9
1960-----	1.1	.2	2.1	1.3	.7	1.0	0	.1	0	1.0

NOTE.—The percentages may not add exactly to 100 in this table and tables A-2, A-3, and A-4 because of rounding.

TABLE A-2.—Percentage distribution of imports by commodity group, 1955-60

FOOD, DRINK, AND TOBACCO

	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan	Total
1955-----	28.6	9.9	37.7	15.8	23.2	26.8	14.8	16.7	25.3	25.8
1956-----	26.8	9.2	38.2	15.5	24.7	28.6	14.0	15.1	17.3	24.6
1957-----	26.5	9.9	37.5	14.7	21.9	27.6	12.3	14.1	13.4	23.5
1958-----	28.4	10.8	40.9	15.6	25.4	26.5	13.1	17.4	17.5	25.8
1959-----	24.1	10.1	38.9	15.3	23.7	26.6	13.3	16.9	13.9	23.8
1960-----	23.6	10.5	35.0	13.5	20.4	22.8	11.5	15.9	12.2	21.7

RAW MATERIALS

1955-----	41.5	20.4	39.2	36.3	48.8	43.8	27.6	51.1	62.9	40.6
1956-----	40.4	19.6	38.4	36.1	46.6	42.7	29.0	53.4	67.0	40.3
1957-----	39.8	19.7	39.9	37.6	49.2	42.9	28.6	55.1	63.9	41.3
1958-----	37.7	18.0	35.2	34.0	44.8	36.3	24.7	50.6	61.1	37.1
1959-----	35.7	17.9	34.9	32.6	44.3	32.1	23.7	47.8	65.1	35.8
1960-----	36.0	18.2	32.8	32.0	41.6	32.6	23.5	44.8	66.1	35.8

METAL MANUFACTURES

1955-----	11.0	10.1	9.3	12.3	8.3	12.8	13.8	9.0	1.7	10.1
1956-----	12.1	13.0	9.2	12.6	8.2	11.4	14.0	9.5	4.1	10.6
1957-----	11.1	12.9	7.5	10.7	8.3	9.9	14.0	8.9	9.9	10.0
1958-----	8.6	10.9	6.6	10.0	8.6	11.1	13.3	8.4	2.4	8.7
1959-----	11.1	9.6	6.7	10.9	9.5	12.1	12.4	9.8	3.2	9.6
1960-----	10.2	9.4	9.5	12.3	12.4	13.2	14.8	12.2	4.8	10.8

66 FACTORS AFFECTING THE U.S. BALANCE OF PAYMENTS

TABLE A-2.—Percentage distribution of imports by commodity group, 1955-60—
Continued

MACHINERY

	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan	Total
1955-----	2.5	19.1	2.9	11.0	7.8	3.6	11.5	9.7	4.4	6.3
1956-----	3.0	20.4	3.3	11.6	8.5	3.9	11.9	9.0	4.0	7.0
1957-----	3.3	20.7	3.5	11.0	9.1	4.0	12.8	9.2	5.6	7.2
1958-----	3.6	20.1	4.0	11.4	9.7	5.5	15.1	9.3	9.9	7.9
1959-----	4.2	20.5	4.8	11.2	10.2	6.2	16.0	9.8	8.2	8.3
1960-----	4.7	20.8	5.4	11.8	10.2	7.2	15.7	10.2	7.0	8.7

VEHICLES

1955-----	1.5	14.2	0.8	5.9	2.7	1.1	9.0	1.4	1.0	3.2
1956-----	2.3	13.4	.8	6.5	2.0	1.1	9.6	1.5	1.0	3.5
1957-----	3.4	12.1	1.0	6.7	2.4	1.9	10.4	2.0	1.1	3.8
1958-----	5.6	12.8	1.3	8.2	2.5	2.5	10.6	1.6	1.4	4.6
1959-----	6.8	14.4	1.3	8.4	2.3	2.7	9.8	1.5	1.6	5.1
1960-----	5.4	15.2	2.1	9.2	4.2	2.4	9.9	2.8	1.9	5.0

CHEMICALS

1955-----	2.6	5.3	2.6	4.8	3.3	2.6	5.7	4.7	2.9	3.4
1956-----	2.5	4.8	2.6	5.0	3.6	2.5	5.9	4.9	4.7	3.5
1957-----	2.6	4.9	2.6	5.6	3.4	2.6	5.8	4.5	4.0	3.5
1958-----	2.5	5.1	3.0	6.2	3.5	3.3	6.1	5.8	5.1	3.8
1959-----	2.6	5.2	3.3	6.4	3.9	3.6	7.0	6.1	5.7	4.1
1960-----	2.6	5.4	3.8	6.2	4.2	4.1	7.1	6.6	5.4	4.4

TEXTILES

1955-----	3.9	5.1	2.0	4.7	1.2	4.9	8.5	2.0	0.4	3.4
1956-----	4.2	4.8	2.1	4.2	1.3	4.9	7.3	1.5	.5	3.4
1957-----	4.0	5.0	2.4	4.8	1.0	5.3	7.3	1.6	.6	3.4
1958-----	4.2	5.4	2.6	4.6	.8	5.5	7.3	1.6	.5	3.6
1959-----	4.7	5.5	2.9	5.0	1.1	5.8	7.7	1.6	.4	4.0
1960-----	5.4	5.8	3.7	5.0	1.5	6.3	7.6	1.7	.4	4.3

MISCELLANEOUS MANUFACTURES

1955-----	6.0	11.4	5.4	9.1	4.7	4.4	9.0	5.4	1.4	6.1
1956-----	6.2	10.7	5.2	8.5	5.1	4.4	8.3	5.2	1.5	6.0
1957-----	6.4	11.0	5.4	9.0	4.7	5.3	8.7	4.7	1.4	6.1
1958-----	6.9	12.5	6.1	9.9	4.7	8.3	9.7	5.5	2.1	7.2
1959-----	8.2	12.8	6.9	10.0	4.8	10.0	10.0	6.4	1.9	8.1
1960-----	9.3	12.9	7.5	9.9	5.4	7.3	9.9	5.8	2.0	7.9

UNSPECIFIED

1955-----	2.3	4.4	0.2	0.1	0	0	0	0	0	1.0
1956-----	2.4	4.0	.2	.1	0	0.5	0	0	0	1.1
1957-----	2.8	4.0	.2	.1	0	.5	0	0	0	1.1
1958-----	2.5	4.2	.2	.1	0	1.0	0	0	0	1.2
1959-----	2.5	4.0	.2	.1	0	1.0	0	0	0	1.2
1960-----	2.7	1.8	.2	.1	0	4.0	0	-----	-----	1.4

TABLE A-3.—Percentage distribution of exports by country, 1955-60

FOOD, DRINK, AND TOBACCO

	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan
1955-----	41.2	17.7	9.7	2.1	14.7	2.9	1.0	8.1	2.7
1956-----	44.4	18.5	8.8	2.2	10.9	3.1	1.1	8.1	3.0
1957-----	43.1	16.1	9.6	2.0	12.3	2.9	1.4	9.7	3.0
1958-----	43.2	18.5	9.0	2.4	10.7	3.0	1.2	8.2	3.8
1959-----	44.5	17.3	8.5	2.4	10.4	3.3	1.2	8.3	4.1
1960-----	45.4	14.7	8.2	2.4	13.1	3.3	1.1	8.1	3.9

RAW MATERIALS

1955-----	32.6	22.9	8.4	5.0	9.2	8.4	8.4	3.3	1.6
1956-----	37.7	21.8	8.0	4.5	7.3	8.3	7.9	2.9	1.6
1957-----	40.9	21.6	7.1	4.2	6.6	8.1	7.2	2.7	1.4
1958-----	33.2	25.3	7.7	4.4	7.6	9.0	7.9	3.2	1.6
1959-----	31.1	26.7	7.6	4.4	7.7	9.3	7.7	3.7	1.8
1960-----	34.8	24.5	6.7	4.3	7.6	9.2	7.6	3.5	1.7

METAL MANUFACTURES

1955-----	21.2	9.9	17.0	15.2	12.7	13.3	3.2	1.9	5.7
1956-----	21.3	9.4	17.2	15.3	10.8	15.7	3.3	2.5	4.3
1957-----	23.7	8.8	16.2	13.6	10.5	17.6	3.1	2.7	3.7
1958-----	20.0	8.5	16.2	14.0	11.9	17.9	3.5	3.3	4.8
1959-----	14.9	9.4	16.2	14.4	13.1	19.9	3.7	3.4	5.0
1960-----	18.0	8.9	13.9	14.4	12.1	20.0	3.5	3.5	5.7

MACHINERY

1955-----	37.1	2.4	22.8	2.6	5.7	21.5	3.2	3.0	1.8
1956-----	39.3	2.2	21.4	2.5	4.6	21.9	3.3	3.0	1.9
1957-----	38.4	2.3	20.1	2.5	4.8	23.3	3.4	3.2	2.1
1958-----	35.4	2.5	20.0	2.6	5.5	24.7	3.4	3.6	2.3
1959-----	32.9	2.8	20.4	2.4	5.8	25.1	3.4	3.6	3.5
1960-----	31.9	2.6	19.1	2.5	6.6	24.9	3.7	4.7	4.1

VEHICLES

1955-----	45.1	1.8	23.0	2.0	6.2	14.9	2.5	2.6	2.0
1956-----	44.4	1.9	22.0	2.0	5.5	14.9	2.2	2.7	4.4
1957-----	39.6	2.0	21.8	1.8	6.6	16.2	3.0	3.4	5.5
1958-----	34.4	2.5	22.4	2.0	7.6	18.5	3.6	4.0	4.9
1959-----	30.9	1.4	22.6	2.2	9.3	20.0	3.6	4.6	5.4
1960-----	33.0	1.2	20.7	2.0	9.4	20.9	3.5	4.7	4.7

CHEMICALS

1955-----	32.5	7.9	16.7	5.5	8.9	20.7	1.2	3.7	2.9
1956-----	33.3	7.7	15.9	5.5	8.2	21.2	1.3	4.0	2.9
1957-----	33.5	6.3	16.1	5.3	8.4	22.4	1.2	3.7	3.1
1958-----	32.2	5.9	15.8	5.5	8.7	23.2	1.3	3.9	3.3
1959-----	31.4	5.5	15.9	5.5	8.4	24.0	1.4	4.3	3.6
1960-----	32.0	3.8	15.6	4.7	9.7	24.5	1.4	5.0	3.3

TEXTILES

1955-----	14.8	0.5	24.9	7.8	14.7	9.5	0.4	8.6	18.8
1956-----	14.4	.5	23.2	8.3	12.9	9.5	.5	9.2	21.6
1957-----	13.7	.5	21.8	8.0	13.0	9.6	.5	9.6	23.2
1958-----	14.2	.5	20.5	7.8	13.4	10.0	.6	10.0	23.0
1959-----	13.3	.6	18.3	7.9	14.2	10.4	.7	11.1	23.5
1960-----	12.3	.8	16.2	8.2	15.2	10.1	.8	12.6	23.8

68 FACTORS AFFECTING THE U.S. BALANCE OF PAYMENTS

TABLE A-3.—Percentage distribution of exports by country, 1955-60—Continued

MISCELLANEOUS MANUFACTURES									
	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan
1955-----	30.3	3.1	19.8	5.2	11.2	15.5	5.0	4.0	5.8
1956-----	31.9	2.9	18.4	5.4	9.9	16.0	5.0	3.8	6.8
1957-----	32.1	2.7	17.1	5.0	10.1	16.5	4.9	4.2	7.3
1958-----	31.9	2.5	16.7	4.9	10.6	16.9	4.8	4.1	7.5
1959-----	30.0	2.7	15.4	5.2	10.6	17.3	4.7	4.7	9.3
1960-----	26.2	2.5	15.7	5.4	12.2	17.1	5.2	6.1	9.9

TOTAL

1955-----	32.7	9.4	17.3	5.7	10.2	12.9	3.7	3.9	4.2
1956-----	34.8	9.2	16.4	5.6	8.4	13.5	3.6	4.0	4.6
1957-----	34.8	8.7	15.7	5.2	8.5	14.4	3.6	4.3	4.8
1958-----	31.6	9.1	16.1	5.2	9.1	15.6	3.7	4.5	5.1
1959-----	29.4	9.2	15.8	5.3	9.5	16.5	3.7	4.9	5.8
1960-----	29.9	8.2	14.6	5.4	10.1	16.7	3.8	5.4	5.9

TABLE A-4.—Percentage distribution of imports by country 1955-60

FOOD, DRINK, AND TOBACCO

	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan
1955-----	26.5	3.9	32.9	3.6	9.0	12.8	2.4	3.8	5.2
1956-----	25.5	4.1	31.0	3.8	10.6	14.6	2.4	3.7	4.3
1957-----	25.3	4.3	30.9	3.6	10.0	15.4	2.2	3.8	4.3
1958-----	26.3	4.3	30.8	3.5	10.5	14.4	2.3	4.1	3.9
1959-----	26.0	4.3	30.8	3.7	8.8	16.4	2.3	4.1	3.6
1960-----	24.3	4.2	30.5	3.7	9.1	16.4	2.4	5.4	3.9

RAW MATERIALS

1955-----	24.4	5.1	21.6	5.2	12.0	13.3	2.9	7.3	8.2
1956-----	23.5	5.4	19.0	5.4	12.2	13.3	3.0	8.0	10.2
1957-----	21.6	4.9	18.7	5.3	12.8	13.7	2.9	8.5	11.7
1958-----	24.3	4.9	18.4	5.3	12.8	13.7	3.0	8.2	9.5
1959-----	25.6	5.1	18.3	5.2	10.9	13.1	2.8	7.7	11.3
1960-----	22.5	4.5	17.3	5.3	11.3	14.2	2.9	9.1	12.8

METAL MANUFACTURES

1955-----	26.1	10.2	20.7	7.1	8.3	15.7	5.8	5.2	0.9
1956-----	26.9	13.6	17.3	7.2	8.2	13.5	5.6	5.4	2.4
1957-----	25.0	13.2	14.4	6.2	8.9	13.1	6.0	5.7	7.5
1958-----	23.5	12.6	14.7	6.6	10.5	17.8	6.9	5.8	1.6
1959-----	29.5	10.2	13.2	6.5	8.7	18.4	5.4	5.9	2.1
1960-----	21.1	7.6	16.6	6.7	11.2	19.1	6.1	8.3	3.1

MACHINERY

1955-----	9.5	30.7	10.2	10.1	12.3	6.9	7.7	8.8	3.7
1956-----	10.2	32.2	9.4	10.0	12.8	7.0	7.1	7.7	3.5
1957-----	10.3	29.4	9.4	8.8	13.4	7.3	7.5	8.1	5.8
1958-----	10.8	25.8	9.8	8.2	13.0	9.6	8.6	7.0	7.2
1959-----	13.0	25.3	10.9	7.7	10.9	11.0	8.1	6.9	6.2
1960-----	12.2	21.0	11.9	8.1	11.5	13.0	8.1	8.6	5.7

VEHICLES

1955-----	10.9	44.7	5.2	10.8	8.2	4.2	11.9	2.5	1.6
1956-----	15.3	42.7	4.8	11.2	6.0	4.1	11.6	2.6	1.8
1957-----	20.4	33.0	5.2	10.3	6.9	6.7	11.8	3.5	2.3
1958-----	28.8	28.2	5.5	10.2	5.7	7.6	10.3	2.0	1.7
1959-----	34.0	28.6	4.8	9.3	4.0	7.7	8.0	1.7	1.9
1960-----	23.9	26.3	7.8	10.8	8.1	7.5	8.8	4.1	2.7

TABLE A-4.—Percentage distribution of imports by country, 1955-60—Continued

CHEMICALS									
	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan
1955-----	18.6	16.2	17.6	8.3	9.9	9.7	7.3	8.0	4.6
1956-----	17.1	15.4	14.8	8.6	11.1	9.0	7.2	8.6	8.3
1957-----	16.8	14.6	14.7	9.4	10.5	10.0	7.1	8.2	8.7
1958-----	15.8	13.5	15.4	9.4	9.8	12.1	7.2	9.1	7.7
1959-----	16.5	13.1	15.4	9.0	8.5	12.9	7.2	8.7	8.7
1960-----	13.5	10.9	16.3	8.4	9.4	14.6	7.3	11.0	8.5
TEXTILES									
	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan
1955-----	27.6	15.3	13.1	8.0	3.5	17.0	10.6	3.4	0.7
1956-----	29.5	15.8	12.4	7.5	4.0	18.1	9.1	2.7	.8
1957-----	26.2	15.0	13.7	8.2	3.1	20.4	9.2	2.9	1.3
1958-----	27.5	15.2	13.9	7.3	2.4	21.3	9.0	2.6	.8
1959-----	30.1	14.1	13.9	7.2	2.4	21.4	8.0	2.3	.7
1960-----	28.0	11.7	16.2	6.7	3.4	22.5	7.8	2.8	.7
MISCELLANEOUS MANUFACTURES									
	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan
1955-----	23.4	19.0	19.7	8.7	7.8	8.8	6.3	5.1	1.2
1956-----	24.3	19.6	17.2	8.4	9.0	9.2	5.8	5.2	1.5
1957-----	23.5	18.5	17.1	8.5	8.3	11.3	6.1	4.9	1.8
1958-----	22.7	17.6	16.4	7.9	7.0	16.1	6.1	4.5	1.7
1959-----	26.1	16.2	15.9	7.1	5.3	18.2	5.2	4.6	1.5
1960-----	26.3	14.3	18.2	7.5	6.6	14.4	5.6	5.3	1.7
TOTAL									
	United States	Canada	United Kingdom	Belgium-Luxembourg	France	Germany	Sweden	Italy	Japan
1955-----	23.8	10.2	22.5	5.8	10.0	12.3	4.2	5.8	5.3
1956-----	23.5	11.0	19.9	6.0	10.6	12.6	4.2	6.0	6.2
1957-----	22.4	10.3	19.4	5.8	10.7	13.1	4.3	6.4	7.5
1958-----	23.9	10.1	19.4	5.7	10.6	14.0	4.5	6.0	5.8
1959-----	25.6	10.2	18.8	5.7	8.8	14.7	4.2	5.8	6.2
1960-----	22.4	8.8	18.9	5.9	9.7	15.6	4.5	7.3	7.0

TABLE A-5.—Exports of specified countries by commodity group, 1955-60¹

[Millions of dollars]

UNITED STATES

	Food, drink, and tobacco	Raw materials	Metals manufactures	Machinery	Vehicles	Chemicals	Textiles	Miscellaneous manufactures	Unspecified	Total ²
1955-----	2,106	2,971	1,448	2,697	2,697	1,019	534	1,548	341	15,361
1956-----	2,664	3,941	1,671	3,410	3,214	1,160	537	1,821	382	18,800
1957-----	2,671	4,744	2,062	3,819	3,042	1,288	558	1,996	408	20,588
1958-----	2,703	3,096	1,536	3,544	2,764	1,251	519	2,046	208	17,667
1959-----	2,859	3,037	1,200	3,464	2,528	1,382	532	2,128	208	17,338
1960 ² -----	3,150	3,971	1,777	3,902	3,085	1,567	570	1,999	228	20,258

CANADA

1955-----	903	2,094	676	178	106	245	19	160	27	4,408
1956-----	1,107	2,283	735	187	138	269	19	168	37	4,943
1957-----	995	2,509	769	232	155	243	22	167	51	5,143
1958-----	1,159	2,356	650	250	202	231	19	162	48	5,077
1959-----	1,110	2,612	759	297	116	242	23	191	54	5,404
1960 ² -----	1,018	2,803	884	313	114	185	39	192	13	5,561

See footnote at end of table, p. 71.

70 FACTORS AFFECTING THE U.S. BALANCE OF PAYMENTS

TABLE A-5.—Exports of specified countries by commodity group, 1955-60¹—Con.

UNITED KINGDOM										
	Food, drink, and tobacco	Raw mate- rials	Metals manu- factures	Machin- ery	Vehicles	Chemical- s	Textiles	Miscel- laneous manu- factures	Unspeci- fied	Total ²
1955.....	498	768	1,159	1,659	1,374	525	897	1,009	243	8,132
1956.....	527	834	1,353	1,861	1,589	556	867	1,050	240	8,877
1957.....	594	822	1,414	2,004	1,673	618	886	1,065	232	9,308
1958.....	562	721	1,246	1,999	1,801	615	751	1,068	217	8,980
1959.....	549	741	1,300	2,149	1,848	697	733	1,091	200	9,303
1960 ³	569	766	1,369	2,335	1,931	765	760	1,197	207	9,899
BELGIUM-LUXEMBOURG										
1955.....	105	460	1,036	187	122	174	281	266	31	2,662
1956.....	131	475	1,202	215	148	192	311	307	38	3,019
1957.....	122	492	1,184	247	138	202	327	312	38	3,062
1958.....	153	411	1,074	264	162	214	286	311	38	2,913
1959.....	154	434	1,162	248	179	240	316	371	20	3,124
1960 ³	164	491	1,428	303	184	231	384	409	48	3,642
FRANCE										
1955.....	751	839	870	414	372	280	528	574	149	4,777
1956.....	653	760	850	400	398	285	482	565	128	4,521
1957.....	762	763	917	475	510	323	531	630	135	5,046
1958.....	668	712	911	555	610	338	489	681	145	5,109
1959.....	667	754	1,057	613	759	371	568	753	42	5,584
1960 ³	908	870	1,195	812	883	475	714	929	49	6,835
GERMANY										
1955.....	150	771	906	1,564	892	650	342	792	0	6,067
1956.....	185	869	1,236	1,599	1,075	355	355	913	19	7,291
1957.....	180	940	1,531	2,317	1,243	859	389	1,025	23	8,507
1958.....	189	841	1,375	2,474	1,482	899	366	1,084	28	8,738
1959.....	214	910	1,598	2,646	1,637	1,054	416	1,227	29	9,731
1960 ³	228	1,046	1,975	3,044	1,953	1,200	476	1,303	112	11,337
SWEDEN										
1955.....	49	771	217	232	149	39	15	253	0	1,725
1956.....	63	823	260	287	161	47	17	284	0	1,942
1957.....	87	838	269	339	232	47	21	304	0	2,137
1958.....	73	736	269	338	287	52	21	310	0	2,086
1959.....	77	749	299	363	295	62	27	333	0	2,205
1960 ³	77	872	345	448	325	69	36	394	0	2,566
ITALY										
1955.....	412	304	132	217	155	115	309	206	0	1,850
1956.....	487	307	200	257	197	138	342	219	0	2,147
1957.....	604	318	233	313	258	142	391	264	0	2,528
1958.....	511	302	251	358	323	153	364	262	0	2,524
1959.....	533	364	270	377	376	189	442	332	0	2,883
1960 ³	563	402	345	575	437	246	591	465	2	3,626
JAPAN										
1955.....	137	147	387	128	119	90	679	297	0	1,984
1956.....	180	170	341	167	317	101	805	386	0	2,467
1957.....	184	168	323	205	425	120	945	451	0	2,821
1958.....	237	147	372	232	395	130	840	482	0	2,835
1959.....	262	177	401	367	443	159	941	657	0	3,407
1960 ³	268	197	566	501	438	161	1,117	753	0	4,001

See footnote at end of table, p. 71.

TABLE A-5.—Exports of specified countries by commodity group, 1955-60¹—Con.

TOTAL										
	Food, drink, and tobacco	Raw materials	Metals manufactures	Machinery	Vehicles	Chemicals	Textiles	Miscellaneous manufactures	Unspecified	Total ²
1955-----	5,111	9,125	6,831	7,276	5,986	3,137	3,604	5,105	791	46,966
1956-----	5,997	10,462	7,848	8,683	7,237	3,488	3,735	5,713	844	54,007
1957-----	6,199	11,594	8,702	9,956	7,676	3,842	4,070	6,214	887	59,140
1958-----	6,255	9,322	7,684	10,014	8,026	3,883	3,655	6,406	684	55,929
1959-----	6,425	9,778	8,046	10,524	8,181	4,396	3,998	7,083	553	58,984
1960 ³ -----	6,945	11,418	9,884	12,233	9,350	4,899	4,696	7,641	659	67,725

¹ Unless otherwise specified, the figures were adapted from United Nations, "Commodity Trade Statistics," statistical papers, series D (New York).

² Excluding "gems, etc." (original SITC 672 or revised SITC 667) and "worked gold and silver gems" (original SITC 673 or revised SITC 897).

³ The revision of the SITC codes in 1960 necessitates the following changes in our classification:

(1) Part of original SITC 683 (nickel) is classified as revised SITC 283 (nickel matte and speiss), the latter therefore falls under "Raw materials."

(2) The item "Domestic refrigerators"—original SITC 899 or revised SITC 719 and 725—is now classified as "Machinery" instead of "Miscellaneous manufactures."

(3) A new item, SITC 961 "Unissued coin," is included in "Metals and manufactures."

(4) The tractor values (original SITC 713) for some countries are estimates.

TABLE A-6.—Imports of specified countries by commodity group, 1955-60¹

[Millions of dollars]										
UNITED STATES										
	Food, drink, and tobacco	Raw materials	Metals manufactures	Machinery	Vehicles	Chemicals	Textiles	Miscellaneous manufactures	Unspecified	Total ²
1955-----	3,190	4,627	1,227	283	164	292	440	669	252	11,144
1956-----	3,288	4,962	1,492	373	278	309	522	767	298	12,289
1957-----	3,379	5,068	1,416	423	437	330	507	818	361	12,739
1958-----	3,565	4,785	1,081	449	699	318	524	860	319	12,550
1959-----	3,589	5,267	1,630	620	1,009	386	691	1,216	372	14,750
1960 ³ -----	3,401	5,200	1,470	684	776	381	785	1,335	393	14,425

CANADA										
	Food, drink, and tobacco	Raw materials	Metals manufactures	Machinery	Vehicles	Chemicals	Textiles	Miscellaneous manufactures	Unspecified	Total ²
1955-----	469	971	482	910	673	254	244	544	208	4,755
1956-----	532	1,134	751	1,181	777	278	280	618	234	5,785
1957-----	580	1,149	751	1,207	706	286	291	642	232	5,844
1958-----	578	961	581	1,073	684	272	290	667	226	5,332
1959-----	595	1,049	565	1,202	848	307	324	752	234	5,876
1960 ³ -----	593	1,028	531	1,174	856	307	328	727	100	5,644

UNITED KINGDOM ⁴										
	Food, drink, and tobacco	Raw materials	Metals manufactures	Machinery	Vehicles	Chemicals	Textiles	Miscellaneous manufactures	Unspecified	Total ²
1955-----	3,959	4,109	972	304	79	276	208	564	23	10,494
1956-----	3,996	4,008	960	346	87	268	220	542	21	10,448
1957-----	4,117	4,385	819	388	112	289	265	595	22	10,992
1958-----	4,168	3,583	676	410	134	309	264	621	20	10,185
1959-----	4,210	3,774	728	521	141	360	318	741	19	10,812
1960 ³ -----	4,268	4,002	1,157	663	253	459	454	921	24	12,201

BELGIUM-LUXEMBOURG										
	Food, drink, and tobacco	Raw materials	Metals manufactures	Machinery	Vehicles	Chemicals	Textiles	Miscellaneous manufactures	Unspecified	Total ²
1955-----	431	990	336	299	162	131	127	249	2	2,727
1956-----	487	1,137	397	366	204	156	132	267	2	3,148
1957-----	485	1,241	353	362	220	184	158	296	2	3,301
1958-----	471	1,027	303	343	246	188	138	299	2	3,017
1959-----	503	1,069	367	367	276	210	165	328	2	3,277
1960 ³ -----	512	1,218	468	450	352	236	189	378	3	3,806

See footnote at end of table, p. 72.

72 FACTORS AFFECTING THE U.S. BALANCE OF PAYMENTS

TABLE A-6.—Imports of specified countries by commodity group, 1955-60¹—Con.

FRANCE										
	Food, drink, and tobacco	Raw materials	Metals manufactures	Machinery	Vehicles	Chemicals	Textiles	Miscellaneous manufactures	Unspecified	Total *
1955.....	1,083	2,279	389	366	124	155	56	222	-----	4,674
1956.....	1,367	2,575	453	471	110	201	71	283	0	5,531
1957.....	1,336	3,000	505	552	148	207	61	289	0	6,098
1958.....	1,420	2,505	483	540	138	197	46	263	0	5,592
1959.....	1,204	2,249	482	520	119	200	54	246	0	5,074
1960 ²	1,279	2,606	777	640	265	266	96	336	0	6,255
GERMANY										
1955.....	1,545	2,525	739	205	64	152	284	253	0	5,767
1956.....	1,888	2,812	748	258	74	163	321	291	35	6,590
1957.....	2,059	3,207	740	298	143	196	395	393	36	7,467
1958.....	1,945	2,665	816	401	183	242	405	608	68	7,333
1959.....	2,241	2,710	1,018	523	229	302	491	846	80	8,440
1960 ²	2,297	3,282	1,330	729	245	412	631	732	400	10,058
SWEDEN										
1955.....	294	548	274	229	179	114	168	179	-----	1,985
1956.....	307	638	308	262	211	130	161	182	-----	2,199
1957.....	299	692	340	309	253	140	178	212	-----	2,423
1958.....	309	583	315	357	249	145	172	230	-----	2,360
1959.....	319	570	298	385	236	168	184	241	0	2,401
1960 ²	332	676	427	452	285	205	218	284	0	2,879
ITALY										
1955.....	452	1,380	244	262	37	126	54	147	0	2,702
1956.....	477	1,690	300	284	48	155	47	163	0	3,164
1957.....	511	1,993	321	332	74	162	57	170	0	3,620
1958.....	549	1,593	265	292	49	182	49	172	0	3,151
1959.....	560	1,587	327	327	49	204	53	213	0	3,320
1960 ²	748	2,110	576	481	133	309	79	271	1	4,708
JAPAN										
1955.....	625	1,553	41	109	24	72	11	34	0	2,469
1956.....	569	2,161	131	129	32	150	15	47	0	3,224
1957.....	575	2,735	423	239	49	170	25	62	0	4,278
1958.....	530	1,850	73	300	41	155	15	63	-----	3,027
1959.....	498	2,339	115	295	57	203	16	68	-----	3,591
1960 ²	549	2,965	217	316	87	240	20	88	1	4,483
TOTAL										
1955.....	12,048	18,982	4,704	2,967	1,506	1,572	1,592	2,861	485	46,717
1956.....	12,901	21,117	5,540	3,670	1,821	1,810	1,769	3,160	590	52,378
1957.....	13,341	23,470	5,668	4,110	2,142	1,964	1,937	3,477	653	56,762
1958.....	13,535	19,502	4,693	4,165	2,423	2,008	1,903	3,783	635	52,547
1959.....	13,689	20,614	5,520	4,760	2,964	2,340	2,296	4,651	707	57,541
1960 ²	13,979	23,087	6,953	5,589	3,252	2,815	2,800	5,072	922	64,469

¹ Retained import figures are used. See Her Majesty's Stationery Office, Annual Statement of the Trade of the United Kingdom, vol. 1, table 14, of respective years.

NOTE.—Footnotes 1, 2, and 3 are the same as in table A-5.

MEASURING THE BALANCE OF PAYMENTS

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MEASURING THE BALANCE OF PAYMENTS ¹

During the last few years the interest in balance of international payments statistics of the United States had a meteoric rise perhaps more so than most other types of economic statistics with which the public is generally familiar.

Balance-of-payments problems have become a subject of major interest not only to public officials directly concerned with them and perhaps a few officials in financial enterprises. A growing number and increasingly diverse groups of people are now recognizing that the balance of payments has become an issue affecting the Nation as a whole as well as their own personal welfare.

It is not surprising, therefore, that the discussion of this subject, which formerly was limited to relatively few of the professional economists, broadened considerably and many people who previously did not pay much attention to it, suddenly entered the discussion, developed theories to explain the causes of the deficit in our foreign transactions and ideas to restore the equilibrium.

This broadening of interest in the balance of payments and the concern with the problems we are facing is to be welcomed. To achieve a solution, cooperation is needed by all sectors in our economy and a better understanding of the facts and issues is essential to achieve that cooperation.

The understanding of balance-of-payments problems and developments depends to some extent upon the ability to evaluate the figures presented in the statistical compilations, how good they are, what affects the transactions which they attempt to measure, and what aspects of the balance of payments we should be concerned with.

A. BASIC PRINCIPLES OF BALANCE-OF-PAYMENTS ACCOUNTING

First of all it is important to understand that balance-of-payments compilations are done on the principle of double entry accounts, in which each transaction is shown as a credit as well as a debit item in exactly the same magnitude.

Consequently, the total of all transactions also results in an equality of the total credit and debit entries. The balance of payments is always in balance. This concept generally is not followed in the collection of the data and it is often forgotten in the interpretation of the account itself.

Second, the transactions included in balance-of-payments presentations are not limited to those involving international payments in "money," usually consisting of gold, dollars, or other freely usable currencies, during any single period. The data cover all transactions involving transfers of resources, both real and financial. This has

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the advantage of showing the extent to which the economy depended upon imported real resources and how these imports were financed, or the extent to which production, employment, and income in a country depended upon foreign utilization of its output and what financial arrangements were used to facilitate the exports. It also shows the full extent to which savings are employed abroad, or domestic savings are supplemented by foreign capital.

In addition to that analytical advantage, the inclusion in the accounts of all transfers is also a statistical necessity—at least in the absence of a complete exchange control system, which would require that each person engaged in a foreign transaction supply information on both the credit and debit side of it.

In compiling balance-of-payments statistics usually the data on each of the two sides comprising the transactions are collected separately from different sources.

Thus, we cannot link exports or any of the other credit items with those types of transactions, which might be the corresponding debit entries. Likewise, we cannot link each of the various debit items, such as direct investments, foreign aid, short- or long-term credits with the various credit items to which they may have been linked, such as exports of merchandise, of services, or exports of gold or increases in our liabilities.

The result of this is that our immediate sources, with few exceptions, do not indicate the relationships between the various items in the balance of payments. In some instances extensive investigations were conducted to obtain some information on such direct relationships as, for instance, between Government aid and exports or other balance-of-payments items, but even in that area the known links had to be supplemented by extensive estimates.

B. SOURCES OF DATA AND GAPS IN THE INFORMATION

With the data originating in many different agencies, each collecting them according to their own standards and principles, we can never be sure that transactions recorded by them appear on both sides of the balance sheet in the same amount, at the same time, and with the same geographic allocation. Furthermore, there are many types of transactions for which recording systems have not yet been devised or which escape from being recorded, although a system to record such transactions is in operation. The independence of the recording systems for the credit and debit part of the transactions makes it possible, however, that transactions for which data are not available on one side of the accounts are nevertheless included on the other side. For instance, we may know that dollars were transferred from a domestic to a foreign bank account or vice versa but do not know the purpose for which the payment was made.

Consequently, we are not able to balance the two sides of our international accounts completely, and have to insert an item "errors and omissions" to indicate the missing net credits or debits. Of course, we attempt to reduce that gap in the data by the collection of additional information, or improving our methods of estimating those items for which we use estimates, but we do not attempt to dissolve the "errors and omissions" by allocating the amounts to various items in the bal-

ance of payments on the basis of hunches or indirect estimating procedures.

The presence of "errors and omissions" in balance-of-payments accounts is not limited to the United States, but all countries whose data collection is not based solely in exchange control information have similar problems.

The "errors and omissions" in our balance of payments are not large compared with the size of transactions for which data or estimates are available, but sometimes—particularly since last year—they have shown rather substantial changes and thus considerably increased the uncertainties in the analysis of balance-of-payments developments.

Among the data we obtain from other Government agencies are those on merchandise trade, which are collected by the Bureau of the Census, and on various types of capital movements which are collected by the Federal Reserve banks as agents for the Treasury. Data on Government transactions are obtained from the agencies engaged in these transactions. For many types of transactions we are collecting information ourselves through questionnaires. These include nearly all services transactions, private remittances, and direct investments. To some extent information collected by our office is supplemented by data from other Government agencies, such as the Maritime Administration, the Bureau of Immigration and Naturalization, the Security and Exchange Commission, and the Bureau of Internal Revenue. Various adjustments are made in the data obtained from other agencies to meet balance-of-payments concepts, to avoid double counting, and to insure consistent time series when their original data are affected by changes in administrative or fiscal procedures.

Many other adjustments of the data obtained from other agencies should be made, however, and many gaps in the available information should be filled, but the information necessary to do so is missing.

The trade data, for instance, are collected according to customs definitions. There is some question, however, whether the reporting requirements are always adhered to, particularly on exports, and on imports for which either no or specific duties are collected. Documents on that part of the trade are sometimes less closely scrutinized by the customs officials than documents on which ad valorem duties are collected.

Aside from difficulties arising from the failure of the reporters to follow reporting instructions, which can be found in many data collecting operations, there are also conceptual differences. For instance the timing of exports reflects the departure of the ships, and the timing of imports the arrival of the ships. For balance-of-payments purposes we would need the time at which the titles to the goods are transferred. On imports, we need the amounts actually paid or to be paid, which sometimes differs from the value on which duties are levied. On goods shipped out under foreign aid programs we try to make sure that the data on Government grants and capital outflows conform in value and timing to the entries in the trade statistics, and that the values used come reasonably close to those of comparable exports. In the case of shipments between U.S. companies and their foreign branches and subsidiaries we plan to make further studies to find out whether the valuation, timing, and geographic designation in the trade statistics corresponds to the information reported to us on the questionnaires on direct investment transactions, and furthermore whether in both

cases the valuation of the goods represents market values. Since merchandise trade is a very large item in the balance of payments—exports and imports are currently at a rate close to \$35 billion—even a very small deviation between the data used and what they should be could account for a very large part of the “errors and omissions.”

The available statistics on capital movements have deficiencies arising from lack of response or improper response to existing data collection programs and from statistical gaps in these programs.

Data used in the capital accounts of the balance of payments are collected either on a transactions basis—purchases and sales of securities for instance—or on a position basis, such as claims and liabilities outstanding at the end of a period.

The reporters are banks, other corporations, and security brokers. There are cutoffs for minimum sizes either of claims and liabilities or transactions or of participation ratios in the case of direct investment, below which reports are not required. Although for most of the international capital transactions the reports are compulsory, many business firms do not report because they are not aware of the reporting requirements and they cannot be reminded, if it is not known that they had reportable transactions. Sometimes one department of an enterprise reports properly but another which has reportable transactions is not aware of the reporting requirements.

Data on direct investments are now collected by our office on a voluntary basis but from time to time a compulsory survey is conducted. This makes it possible to supplement the list of firms which are requested to supply data currently and provides new benchmarks which are used to revise the previous estimates. The results of the last compulsory survey of U.S. direct investments abroad were published last year, and this year we completed a similar survey on foreign direct investments in the United States.

Continuous efforts are made by the Federal Reserve banks, the Treasury, and our own staff to improve the coverage of the data, particularly since last year when a sharp swing in the “errors and omissions” suggested that large unreported capital outflows had taken place. To some extent, these efforts were successful. There are, however, gaps in the reporting system itself which are most difficult to close.

One of the most important gaps is the lack of reports from individuals. If an individual purchases and sells foreign securities through American brokers or banks the latter will include his transactions in their reports. But if he conducts his business directly through foreign organizations we would not know about it. Likewise, no information is available if he borrows money abroad, or deposits money abroad. Direct transactions by U.S. residents with foreign banks and brokers are greatly facilitated by the operation of foreign banks in the United States through agencies. While these agencies are subject to the same reporting requirements as domestic banks, the reports they file may cover only the business which appears on their own books, but we are not sure that they also cover the business conducted with U.S. residents by their parent companies.

Other gaps in the information may be due to the difficulties of American brokers and banks to identify transactions as foreign particularly if they are conducted through domestic agents who do not report their principals. From time to time we are attempting to esti-

mate foreign holdings of U.S. securities on the basis of corporate withholding tax records, but these benchmark figures do not help much in the analysis of relatively volatile capital movements, such as security transactions, and do not disclose foreign holdings of assets other than corporate securities. Unrecorded capital movements probably constitute a relatively large part of the balance on unrecorded transactions and probably contribute more than other transactions to the sharp shifts in that balance, such as was experienced in 1960.

Another area where gaps in the information still exist are the services transactions and private remittances. We do not have any information now on commissions received or paid in international trade, international advertising expenditures, probably only incomplete data on foreign earnings of service-type enterprises such as construction firms and consultants, and on royalties. On remittances we are missing remittances in the form of notes or checks and most forms of inward remittances.

There are, therefore, many types of transactions on which information is missing entirely or partially, and, of course, even where we obtain data or make estimates, errors are difficult to avoid.

It is quite wrong, therefore, to attribute "errors and omissions" to any single type of transaction. During most of the postwar period through 1959 the balance on "errors and omissions" was usually positive, indicating that we had a tendency to miss transactions on which we had net receipts and possibly that we also overestimated some of our debit transactions. Such missing receipts could have been in services, remittances, and capital transactions, and overestimated payments perhaps in trade. These transactions are not subject to sharp fluctuations, however. Some of the missing services transactions are likely to change relatively slowly, and the same may apply to the missing private remittances. The errors and omissions associated with trade (including the missing data on commissions) may—in the short run at least—be expected to change with trade itself, which may be relatively little if exports and imports are considered separately. In view of the relatively large variations in the trade balance, however, it is entirely possible that errors and omissions associated with trade also vary considerably and thus account for a major share in their fluctuations.

A large part of the fluctuations in the errors and omissions is likely to reflect unrecorded capital movements, however. As already indicated it would not be justified to assume, however, that these fluctuating capital movements are necessarily of a short-term nature. The net credit balance on unrecorded transactions until 1959 may—in part—have been due to unrecorded inflows of foreign capital, while in 1960 similar capital movements were directed to other countries mainly in Europe. Perhaps also, unrecorded purchases of foreign securities increased in 1960, not necessarily for short-term speculative purposes but for long-term investments in the expectation of a rapid growth of the European economies.

This partial enumeration of the gaps in the balance-of-payments statistics was presented here to indicate the areas where improvements are needed, and some of the difficulties which are being encountered. It was also intended as a warning to analysts to be careful in associating "errors and omissions" exclusively with one or another type of international transaction, including short-term capital movements.

It should be emphasized, however, that while information on certain types of foreign transactions are missing, this missing information is a relatively small gap in a comprehensive complex of data which are available, and are being published regularly, partly on a monthly basis, and in aggregate balance-of-payments statements quarterly.

Furthermore, it should be emphasized that the data which are missing probably affect very little the measurement of the overall balance in our foreign transactions, at least as we define it. The gaps do make it difficult, however, particularly when the balance on unrecorded transactions changes rapidly to identify the transactions which are associated with the changes in the overall balance, and to analyze their significance.

THE CLASSIFICATION PROBLEM

Another problem encountered by the compiler of balance-of-payments statistics of which the analyst should be aware concerns the arrangement of the transactions by categories.

Many transactions contain elements of several of the types of transactions usually shown in balance-of-payments compilations, and in many instances it is difficult to decide whether they should be in one or in another category. Many services transactions for instance involve transfers of merchandise. Transportation data include port expenditures which in turn include purchases of bunker fuel, provisions, and spare parts; travel expenditures include imports purchased by travelers, military transactions, both payments and receipts contain both services and merchandise. Even the data on merchandise trade may include associated services, such as the supervision of the installation on servicing of equipment, or in some instances the bills may be reduced to allow for the customer's sales expenses.

If funds are remitted from foreign enterprises to their domestic parent companies the decision to designate the remittance as a return flow of capital or as income on investment, or as payment for services, is often difficult for the reporting enterprise to make and frequently it will depend on extraneous considerations such as tax legislation at home or abroad. Money may flow back to the United States under any of these labels if for some reason the parent company requires it, or it may stay abroad if it is not needed here. Comparative conditions on the capital markets at home and abroad may be among these reasons and thus may affect not only capital transactions but also investment incomes or even the receipts of royalties and management fees. The compiler can only record what is reported to him.

Lines of separation between the different categories of capital transactions are even less distinct. Movements of direct investment capital include both long- and short-term capital flows. In some instances—and they are not small in size—transactions are on the borderline between direct investments and transactions in foreign securities or bank loans.

In some instances it is difficult to distinguish between direct investment transactions and movements of foreign capital as in cases when loans are obtained abroad by a subsidiary and the funds passed on to the parent company. This transaction could be classified either as an inflow of foreign capital—if the transit of the funds through the foreign subsidiary is disregarded—or as a repatriation of prior in-

vestments—if the actual movement of the funds and the parent company's accounting procedure are followed.

The distinction between purchases of securities and loans is sometimes difficult, particularly if loans are provided against transferable notes.

The separation of long- and short-term capital is frequently misunderstood and overemphasized. The distinction applies to the asset, not to the intent of the investor which—of course—cannot be known. Stocks and fixed interest securities with an original maturity of over 1 year, even if they actually mature in less than 1 year from the time of the purchase, are considered long-term assets. The purchaser may intend to profit from short-term capital gains or to hold them as long-term investments. Loans over 1 year become short-term assets as they approach their maturity dates, but in the statistics they remain long-term assets until they are paid off.

On the other hand, many loans classified as "short term" are really revolving loans to the same customer. Others may be short-term loans to a single customer, but have to be considered long-term claims against the borrower's country, because the country's foreign exchange resources may not permit it to pay off its short-term debt unless it can borrow on longer terms. Some loans may be set up and classified as "short term" to meet balance-sheet requirements of the lending bank, but are not intended to be called.

Over the postwar period our own statistics on so-called short-term assets abroad have not shown alternative periods of net outflows and inflows of funds but almost only net outflows. In most of the few periods when reductions in short-term claims were registered in the statistics, it was not due to a return flow of capital, but to a conversion into long-term loans, mostly by the Export-Import Bank, sometimes by private sources.

Similarly, the distinction between grants and loans is not as sharp as one might believe. It is true that loans have to be repaid while grants do not involve such obligations. If the loan amortization and interest payments are made in the borrowing country's currency, and if that currency can only be used for further loans in the same country, then the original loan is—in effect—a perpetual interest-free loan at least as far as the lending and the borrowing country are concerned. In that case what appears in the statistic as a capital transaction is really a grant. There are also cases where it is hard to decide whether a transaction is a grant or a purchase, or whether it may not be partly both.

C. SELECTION AND MEASUREMENT OF THE BALANCE

As indicated earlier, balance-of-payments compilations are based on the principle that the credit and debit items on the balance sheet are equal. The principle of double-entry accounting by itself, however, does not provide a criterion to determine whether a country had a surplus or a deficit, whether it had difficulties in meeting its foreign obligations, or whether it was easily able to do so.

The definition of surplus or deficit is a matter of analysis and analysis may vary with the purpose for which it is made. Different types of analysis are, of course, desirable, and it is the obligation of

the compilers to provide the data—as far as possible—to meet the various analytical requirements.

By dividing all of the balance-of-payments items into two groups, each of the two will balance to the same figure with opposite signs. The figures themselves never indicate, however, that one of these two groups is the cause and the other the effect. If it attempted to read a cause—effect relationship into such groupings it represents a hypothesis that is not based on balance-of-payments data themselves—but on other assumptions—and that assumed relationship is not subject to proof or disproof on the basis of balance-of-payments statistics.

The analysis based on the concept of compensatory financing, distinguishing between autonomous and compensatory items, is merely a hypothesis. This type of analysis designates certain items in the balance of payments as compensatory; i.e., the passive counterpart to the autonomous transactions which represent the primary objective of those engaged in the transactions. This analysis is based on the assumption that the analyzer knows the motivations of these transactions, and, furthermore, if this analysis is standardized, that these motivations are the same in different countries and do not change with varying circumstances.

The analysis which I believe to be more useful is designed to meet essentially a practical purpose: to measure the changes in our capability to defend the exchange value of the dollar. This defense is the responsibility of our monetary authorities and their capability depends upon their liquid resources and the liquid claims which can be exercised against these resources. Consequently we attempt to separate those items in the balance of payments which indicate changes in this capability from those items with which these changes have been associated. The items by which we measure the changes in this capability will depend upon institutional arrangements, and may change over time.

If such an analysis were attempted for other countries, differences in institutional arrangements would result in different selections of balance-of-payments items, by which their international liquidity is measured. Changes in international liquidity of any one country, therefore, are not necessarily compensated by opposite changes in the liquidity of all other countries. The total for all countries can expand or contract, just as liquidity within any one country is subject to change.

Which items are relevant for any one country and at any one time may still be open to debate, and some items may be more important in measuring liquidity than others. That applies equally to any single enterprise or household. One could imagine liquidity measurement in the form of a different layer of items, rather than a single figure. That may be more correct, but also more clumsy to use, and for the general public more difficult to understand.

While this type of analysis of the balance of payments involves judgments about the selection of items, the judgment can be made on more or less rational grounds, which is far less subject to dispute than judgments made about motivations of transactions. In order to determine whether the international liquidity position of a country's monetary authorities has improved or deteriorated it is not necessary to judge whether a transaction is autonomous or compensatory.

The measurement of changes in the capability to defend the currency looks at past developments as they affect the future, not whether past

developments have or have not exerted any pressure on the exchange value of the currency. Even if a certain constellation of transactions has not exerted such pressures in the past, but a continuation of these transactions in the same proportion and magnitude is likely to do so in the future, this potentiality has to be indicated, if balance-of-payments compilations are to be of any use to those responsible for policies safeguarding the exchange value of the currency.

A deterioration in the liquidity position may be designated a deficit in those transactions which are not used in measuring the liquidity itself, an improvement in the liquidity position would reflect a surplus in these transactions. The terms surplus and deficit are used by many analysts and writers to indicate different phenomena, however, such as past pressures on the exchange values, or simply the balance on goods and services to draw attention to changes in the net creditor or debtor position of the country. Surplus or deficit in the balance of payments are not terms which have a unique meaning and their use frequently leads to misunderstandings. It is preferable to avoid these terms, therefore, and to indicate instead what feature of the balance of payments is being selected for special attention.

In measuring the international liquidity position supporting the dollar, the reserves available to our monetary authorities are our monetary gold stock and since last March limited amounts of convertible foreign currencies.

Most of the privately held assets are not liquid—even if they are designated as short term in the statistics. Furthermore, they are not available to the monetary authorities in case they would be needed. Our private banks do not hold foreign assets as secondary reserves similar to their deposits in other domestic banks or holdings of Government securities maturing within a few months. Federal Reserve banks, as a matter of policy, do not purchase and sell foreign assets at stated prices as they purchase and sell gold, and as foreign central banks purchase and sell dollars and sometimes other reserve currencies. If credit is tightening here, banks will probably attempt to reduce their holdings of foreign assets, but not necessarily in preference to their holdings of domestic assets. In fact, since their secondary reserves are in domestic assets, it is likely that they will try to liquidate these first. The effects of credit tightening policies on our gold reserves is likely to be slow at best, comparatively small, and to be obtained only at the expense of a relatively large contraction in the supply of money and credit available to the domestic economy.

Abroad, particularly in the major European countries, conditions are different. As long as the dollar is accepted by foreign central banks as part of their official reserves, the same as gold, they stand ready to buy liquid dollar assets at stated prices. Consequently private banks abroad, and other private enterprises and persons will be inclined to hold liquid dollars as part of their reserves, either in first- or second-line depending upon the regulations and customs of the countries concerned. They will hold these dollar assets although their yield is usually considerably lower than income they can obtain from their domestic but less liquid investments, and because—even if small—it may be more than the yield on their legal or other first-line reserves. A credit contraction by foreign central banks will induce the private banks and enterprises to sell their dollar assets before

they will attempt to reduce their relatively high yield domestic assets, and the central bank reserves will be increased correspondingly.

Because of different institutional arrangements abroad resulting in part from the fact that the dollar is a reserve currency, foreign central banks are in a much better position to augment their reserves from privately held dollar assets, than are our monetary authorities to augment their gold holdings by inducing private holders of foreign assets to sell them.

To continue its function as an international reserve currency, the supply of dollars—as that of any other asset used for reserve purposes—has to remain tight enough to retain its exchange value, and has to remain fully convertible into other reserve assets, particularly gold.

For that reason, freely convertible dollar assets held abroad, which is the same as our demand liabilities, must be considered as potential claims on our gold reserves, and have to be taken into consideration in an evaluation of the liquidity position supporting the dollar. Liquid dollar assets held by foreign monetary authorities are, of course, a more direct claim on our gold holdings, than privately owned dollar assets. The difference is merely one of degree, however.

The distinction between transactions by which changes in liquidity are measured and all other transactions do not indicate causal relationship. A change in either group of items may be the immediate object of the transaction and sometimes both may appear to be the primary object, although of different principals in the same country. Which of the two groups of items reflect the primary purpose of the transaction may change from time to time, from country to country, and the same group of transactions may be the primary object in one country, and during the same period the derivative part of the transactions in the other country.

For instance, private foreign residents under certain circumstances may desire to raise their liquid foreign exchange resources, and to obtain them will shape their other transactions accordingly. In other cases, monetary authorities may want to increase their dollar reserves and may do so either directly by withholding a part of their foreign exchange receipts from the market (e.g. by exchange controls or by letting the price of foreign currencies rise) or indirectly, by influencing the market in such a way that private business desires to increase sales of real or financial assets or to reduce purchases abroad. When indirect methods are used those transacting the foreign business may have as their primary purpose the gains from the larger sales or lower purchases of assets abroad, while at the same time the monetary authorities have as primary purpose of their actions to achieve a change in their liquidity position.

It would be somewhat unrealistic to assume that monetary authorities are always the passive partner in foreign transactions, purchasing foreign exchange if nobody else wants to buy it, or selling it if there is no other source from which it can be obtained at the given price. If monetary authorities are concerned about their international liquidity they act to safeguard it, and purchases and sales of foreign exchange to maintain international liquidity can be as much an autonomous action, as the purchases and sale of less liquid financial assets or of goods and services. Achieving proper liquidity is not something

that happens merely as a side effect of other transactions, but is an autonomous goal for monetary authorities as much as for any business or person engaged in economic activities in a monetary economy.

D. CONCLUSIONS FOR BALANCE-OF-PAYMENTS ANALYSIS

These remarks about balance-of-payments compilations may appear to be rather discouraging to potential users: The data are not quite complete and the compilers while trying to obtain more information cannot suggest a simple interpretation of the missing gaps; the individual items on which information is presented are to varying degrees overlapping and interconnected, so that one can never be sure how a change in any one item will be reflected in the other items; there is no simple formula for measuring the balance and there is no simple way to determine cause and effect relationships between the various items in the balance of payments, including those by which the balance is measured and the other items. Or, to put it in slightly different terms, mere addition and subtraction of the various figures presented in balance-of-payments compilations, is not a sufficient tool to analyze the balance of payments.

Where does that leave us then? The answer is really very simple and should be quite obvious to every economist: Except for some self-reversing and relatively outstanding developments, the balance-of-payments account has to be considered as a whole and analyzed by looking at the economy as a whole and its position in the economy in the rest of the world.

If one industry loses out to foreign competition but other industries are not gaining sufficiently to offset the losses of the declining industry, the balance-of-payments problem is not just associated with this weak industry, it is economywide. If international competitiveness declines, it not only affects trade, but capital movements as well, and not just one form of capital movements but all. If a country has an excess domestic liquidity the excess funds will tend to move abroad. Under certain circumstances the excess liquidity will affect trade by reducing exports and raising imports, and under other circumstances it will lead to larger capital outflows. Capital outflows would be stimulated by lower interest rates at home relative to those abroad, and will appear in the form of direct investments, new security issues, or bank loans for both long and short terms.

Of course, there are many people who want to draw attention to one or another item in the balance of payments to explain an unsatisfactory condition in the balance as a whole. Probably they have an interest in doing that, either a special interest in that particular transaction itself, or an interest in diverting attention from the overall economy to a limited sector. It is the purpose of this paper to warn about the pitfalls of this procedure and help direct analytical endeavors to the broad and fundamental economic relationships where they can be more productive and helpful in policy formulations. After all, the economy is—at least in an economically advanced country like ours—an integrated whole, and not a pile of disconnected segments.

87th Congress }
2d Session }

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**FACTORS AFFECTING THE UNITED STATES
BALANCE OF PAYMENTS**

MATERIALS PREPARED FOR THE
SUBCOMMITTEE ON INTERNATIONAL
EXCHANGE AND PAYMENTS
OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

Part 2
**THE COMMON MARKET: NEW CHALLENGES
TO U.S. EXPORTS**



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LETTERS OF TRANSMITTAL

NOVEMBER 16, 1962.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress are four in a series of papers prepared by outside consultants for the consideration of our Subcommittee on International Exchange and Payments in connection with its study of "Factors Affecting the United States Balance of Payments."

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

NOVEMBER 15, 1962.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith are four in a series of study papers assembled by the Subcommittee on International Exchange and Payments on the general subject of "Factors Affecting the United States Balance of Payments."

The papers in the series, prepared by experts from Government, the universities, and research organizations, are a part of the subcommittee's broadly based study of the need and means for reducing the deficit in the U.S. balance of payments, as well as appraising the opportunities for international trade and payments cooperation and the usefulness of a policy of relatively high domestic interest rates in stemming the recent dollar outflow.

The materials are presented in advance of the subcommittee's hearings in accordance with the Joint Economic Committee practice of providing members of the committee and the participating panelists an opportunity to examine thoroughly the analyses in preparation for discussions at public hearings.

Prof. Don Humphrey of the Fletcher School of Law and Diplomacy, Tufts University, has been acting as a consultant to the subcommittee and has had major staff responsibility in arranging for these expert study papers and in planning the subcommittee's study.

Sincerely,

HENRY S. REUSS,
*Chairman, Subcommittee on International Exchange and
Payments.*

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THE U.S. TRADE POSITION AND THE COMMON
MARKET

By
IRVING B. KRAVIS
UNIVERSITY OF PENNSYLVANIA

THE U.S. TRADE POSITION AND THE COMMON MARKET¹

It is widely appreciated that the terms upon which the United States has participated in world trade during the past century have been favored by unique features of U.S. geography and economic structure. There is reason to fear that some of these past sources of strength may be eroding, owing partly to the continuing revolution in transportation and communication and partly to economic changes both in the United States and in other important industrial countries.

In particular, the economic structure of Western Europe has been moving closer to that of the United States. The United States thus is being made less unique; it is being confronted with keener competition and with a more nearly equal concentration of economic and political power.

The European Economic Community (EEC) or the Common Market has accelerated these developments—some more clearly than others. It may not be amiss, therefore, to try to assess the impact of the Common Market upon the United States against this general background of changing relative positions. This approach shifts attention somewhat from the usual emphasis on the dangers of trade diversion that are created by the rapid elimination of trade barriers within the Common Market and the establishment of a common tariff wall around it. Aside from the fact that trade diversion has already been so widely discussed, there are several reasons for favoring this line of attack.

In the first place, the extent of trade diversion itself will depend largely upon the policy choices made by the EEC and these will in turn be influenced by the whole constellation of political and economic power relationships between the EEC and other countries, particularly the United States. This is the more likely since the common external tariff itself cannot be regarded as unduly protective by American standards. Tariff comparisons are notoriously difficult, but it is probably significant that at the rates prevailing in 1960 the average U.S. duty was higher than the common external tariff for 47 out of 74 chapters of the Brussels classification for which data were calculated by the Committee for Economic Development.² Taken in conjunction with the trade-creating effects of the fillip to economic growth given by the Common Market, adverse overall effects on U.S.

¹The author is grateful for the helpful comments of Dr. Richard A. Easterlin of the University of Pennsylvania, Dr. Hal B. Lary of the National Bureau of Economic Research, and Dr. Philip J. Bourque, none of whom necessarily subscribes to the analyses or conclusions of the paper.

²The duties for the various items in each chapter were weighted by the 1960 imports of each area (i.e., the United States and the EEC). Cf., Committee for Economic Development, "A New Trade Policy for the United States," April 1962, pp. 35-38. There is some tendency for the U.S. duties to be higher than those of the EEC on certain raw materials and to be lower on certain finished goods, particularly machinery. This may reflect the greater European dependence on imported materials.

exports to the Common Market countries will not necessarily follow *automatically* from the existence of the Common Market. Adverse effects may, however, result from the future commercial and economic policies of the Common Market.

Secondly, a discussion of the effects of the Common Market which is concentrated upon trade diversion stresses competition for EEC markets and may omit the important question of competition between EEC and U.S. firms for American and third markets. After all, U.S. exports to the six account for only about 15 percent of U.S. commodity exports, and they are, of course, small relative to total sales in the domestic market. Furthermore the more basic issues of relative competitiveness are important also in the contest for EEC markets.

ADVANTAGES OF THE UNITED STATES IN WORLD TRADE

The historical advantages of the United States in world trade may be listed as follows:

1. By the happy accident of geography the United States had an abundant supply of the materials which constituted the essential requisites of an industrial civilization. Coal and iron were linked by cheap water transport. There were ample supplies of wood. Copper, lead, and zinc were found in quantities adequate not only to supply the United States but also to export to other countries. Abundant supplies meant that materials were cheap and gave a corresponding advantage to manufactured goods.

2. Not only was there a variety of abundant metals but there was also a vast expanse of land variegated with respect to climate and soil. Elsewhere in the world where favorable climate and soil are found, the man-land ratio is generally much higher, and therefore less agricultural output is available for export. Almost from the beginning of the Nation until this day, the United States has thus been a major exporter of agricultural products. It is true that the proportion of our exports made up by agricultural products has been much smaller in recent decades than in the 18th and 19th centuries but it nevertheless remains a fact that agricultural exports account for one-fourth of the total nonmilitary exports of the United States.

3. The United States has been a capital-rich country. The availability of cheap or free land made labor expensive from the beginning, and placed a premium on mechanization. Rough comparisons suggest that in the early or middle 1950's the amount of physical capital per worker used by U.S. enterprises was well over twice as great as that used by the leading countries of Western Europe, while the amount of equipment used per worker was almost twice as great.³ While the connection between factor intensities and comparative advantage may not be as simple as was once thought, the abundance of capital in the United States has undoubtedly been an important source of advantage for the United States in world competition. At the minimum a plentiful supply of capital made it easier for American

³ These statements are based on rough calculations made from data in R. Goldsmith and C. Saunders (editors), "The Measurement of National Wealth," Income and Wealth, Series VIII, London, 1959, and M. Gilbert and associates, "Comparative National Products and Price Levels," Paris, 1957.

firms to take advantage of the opportunities for large-scale production and made resources more readily available for research and development.

4. The American economy has had the advantage of bold and imaginative entrepreneurs. The combination of a rich and unexploited continent and a high degree of equality of economic opportunity stimulated a vigorous competitive race. While the visible hand of the entrepreneur engaged in self-aggrandizement not infrequently seemed to operate with greater strength than the invisible hand supposedly promoting the public interest, the ruthless entrepreneurs of the 19th century did serve to bring about the rapid economic development of the country. They left a heritage of vigor in the adaptation to changing conditions that still permeates American business leadership.

These are the basic factors, but there are two more elements, arising in part at least from some combination of the above, that ought to be mentioned separately.

5. The presence of a domestic market that was both large in size and rich in its capacity to absorb new and high quality products strengthened the export position of the United States. The large American market, combined with the availability of capital and the pressures of competition, stimulated American firms to exploit the advantages of mass production at an earlier date and more extensively than foreign firms. It was the low costs of large size plants that gave the United States the opportunity to enter world markets for many manufactured goods. This was true for standard items such as apparel and farm implements which were produced in other countries by handicraft or small scale manufacturing industries. In addition, however, the wealth of the American market made it possible to cater to a demand for costly and high quality products by developing mechanized methods for their production. This applied not only to consumers durables but also to the improved machines and materials that were required for their production. Countries whose markets would not support the large-scale output of these products imported them from the United States.⁴ In a later stage they imported the improved machines and materials.

6. The movement toward the efficiency of mass production may be regarded as part of a broader search for cheaper methods of production and better or new products. In the 19th century, the "build a better mousetrap" motivation stimulated a flow of new inventions that were quickly inserted into the economic process. As research and development problems became more complicated, teams of specialists working with expensive equipment began to be developed in virtually every large firm. The result was that the American economy had a significant margin of technological superiority, and in many lines of production U.S. exports depended not so much upon the ability to quote favorable prices as upon the ability to offer qualities, designs, or basic products that could not be obtained elsewhere.

⁴S. B. Linder has recently stressed the role of domestic demand in conferring a comparative advantage upon a country for a given product. Cf. his "Essay on Trade and Transformation," New York, 1961, especially pp. 87-91.

CHANGES IN THE AMERICAN POSITION

Basic forces operating both in the United States and the world at large seem to be weakening at least a number of these sources of strength in the American position. Let us take them one by one.

1. The advantage of cheap natural materials has been reduced by a number of factors. First of all the voracious appetite of the American industrial machine has chewed up significant portions of the original deposits of many ores. The once rich Mesabi range no longer yields huge quantities of rich ore but mainly the lower grade taconite. Iron ore, like copper, lead, and zinc which the United States once exported to other countries, must now be imported. The new sources of supply—Labrador, South America, Africa, and Asia—are often exploited by international companies in which entrepreneurs from different countries participate, and American buyers have no favored position vis-a-vis buyers from England, Germany, or other countries. Secondly, oil, and natural gas have replaced coal as the lowest cost fuel and the availability of cheap Middle East oil has given our chief industrial rivals an important if sometimes embarrassing (for the coal-producing countries among them) opportunity to offset the advantage of cheap energy enjoyed by American manufacturers. Third, the advance of technology has reduced the relative advantage derived from having a domestic supply of raw materials. Part of this has been accomplished by the continuing revolution in transport which has been reducing the time and cost required to move heavy materials. Another part stems from the increasing economy in the use of natural materials in industry; according to one estimate, for example, natural inputs declined from 25 percent of the gross value of manufacturing output in the world's industrial areas in 1938 to 17.6 percent in 1955. An example of this tendency that has adversely affected the competitive position of an American industry is the reduction in the amount of coke required in the operation of blast furnaces; since coke is more expensive in Europe, the change is more favorable for Europe than for the United States.⁵

On the other hand, the American economy has been a leader in the development of synthetic materials including such important products as artificial fibers, synthetic rubber, and plastics. To the extent that the latest variants of these products continue to be available first and most cheaply in the United States and offsetting advantage with respect to materials is enjoyed by the United States. The possession and extent of such an advantage turns upon technological leadership, discussed below.

2. The potential advantages of the United States in world agricultural markets are frustrated by governmental supports and controls. Although the U.S. Government is scarcely an exception to the almost universal tendency of governments to subsidize and protect agriculture, U.S. agriculture would probably be able to enlarge its export surplus in a free world market. In the world as it actually is, the trend toward increased output behind tariff and quota barriers threatens to limit further the ability of American agriculture to export its products.

⁵ GATT, "International Trade, 1955," p. 12.

3. The U.S. advantages derived from the possession of large amounts of capital have also tended to diminish. One reason—which is of recent origin and may prove to be temporary—is that many of the main competitors of the United States (Germany, France, and Japan, but not the United Kingdom) have increased their stocks of capital at a faster rate than the United States.⁶ The impact of the differential in growth rates is not, however, nearly so immediate as a different factor which operates so as to minimize the effect of the abundance of capital in the United States. The shrinkage of distance by phone and plane has increased the mobility of capital. The riskiness of investment in Western Europe has been greatly reduced by political stability, rapidly growing markets, strong currencies, and increased familiarity with European laws and business practices. The \$18 billion outflow of private long-term capital from the United States during the past decade (exclusive of reinvested earnings) is the equivalent of 2 percent of the value of reproducible wealth of the United States and perhaps one-fifth that of a country such as Germany, France, or England. (Of course only about one-fourth has gone to Western Europe and a much smaller fraction to any one country, and the comparison with the wealth of these countries is intended only to give an impression of the magnitude of the outflow.)

4. Not only capital but also entrepreneurship has become more mobile; modern technology has expanded the geographical span of control to encompass the world. Thus two-thirds of the long term private capital outflow of the past decade has been in the form of direct investment. Direct investment is accompanied by American entrepreneurship, production know-how, and product design.

5. The increase in incomes in Western Europe and elsewhere has greatly expanded the size of the market and thus the opportunities for mass production of standard products such as apparel, of more costly items such as automobiles, and finally of the improved materials and machines required to produce the higher quality goods. This can be clearly seen in the automobile industry. One of the keys to the new-found ability of the Europeans to meet U.S. competition is a market now large enough to obtain an economical scale of output. In other parts of the world, such as Latin America, where the same techniques of production are available and wage rates are even lower than in Europe, automobile production costs are still high; the market in these places simply is not large enough to obtain the volume necessary for economical output. The dependence of the European automobile industry upon American materials and machines is also being reduced. Originally, a leading German automobile producer bought sheet steel from the United States because the desired quality was scarce in Europe. Now supplies are improving in Europe and prices are lower, and the German company's business may be kept only by special price concessions on the part of the American mill or as a result of a desire on the part of the auto manufacturer to maintain diverse sources of supply.

⁶ The average annual rate of growth in fixed capital formation in real terms during the decade of the 1950's was 2.1 percent in the United States compared to 4.5, 4.9, and 9.8 percent in the United Kingdom, France, and Germany, respectively. The comparison was even more disadvantageous to the United States in the second half of the decade when the U.S. rate was less than 1 percent. The Japanese rate, available only for the second half of the decade, was 22 percent. Cf. U.N. "Yearbook of National Account Statistics, 1960," New York, 1961, pp. 265-269.

6. A number of factors have operated in the postwar period to minimize the effect upon international trade of the technological superiority enjoyed by U.S. industry. Shortly after the war, the U.S. Government, for good reasons, encouraged the export of American techniques to other countries. Thus the latest machinery and methods of production were incorporated in foreign plants often built with U.S. funds. In addition, the policies of foreign governments operated to offset the technological advantages enjoyed by the United States. In the first place, certain American companies which were permitted to sell in European markets found themselves holding large sums of inconvertible currencies. Although they had been accustomed to supplying their international operations from American sources, they thus found it desirable to cultivate European sources of supply. In some cases, this involved teaching European suppliers to meet the quality requirements and design specifications that formerly had been available only from American sources. Secondly, many American firms found that they could overcome the barriers of tariffs, exchange controls, and Government purchasing policies only by establishing branches, subsidiaries, or licensees in Europe and elsewhere. More recently, of course, such moves into Europe have been motivated by more purely economic factors, such as higher profit margins, tax advantages, low labor costs, and closer proximity to the market, although tariffs and other Government policies still play a role. In any case, these establishments have the advantage of American know-how. According to a British estimate made about a half-dozen years ago, 25 to 30 percent of company-financed research in the United States was directly available to Britain through branches of American firms,⁷ and the resources this represented were greater than those spent by British industry as a whole upon research.

The effect of foreign affiliates upon U.S. exports and the U.S. balance of payments is not clear. There is some indication of a negative correlation between the expansion of U.S.-owned manufacturing production abroad and U.S. exports for given industries.⁸ Even if this is more firmly established, it is still possible that foreign affiliates stimulate U.S. exports through purchases of capital equipment, materials, complementary products (to fill out lines) and components more than they hurt them. In addition, it is claimed that foreign producers rather than U.S. home companies would win the foreign markets if the U.S. producers did not establish the foreign affiliates. This argument may have longrun validity, but it is weakened at the moment by the fact that the economies of the continental European countries have been working at capacity; it is not apparent therefore that the European producers would have been able to expand to take the business now enjoyed by the American affiliates. Finally, it is pointed out that the foreign affiliates help the balance of payments by giving rise to a stream of dividends, profits, and royalties, but this contention is set aside by some who stress the short run effects of the immediate investment outlays upon the balance of payments.

Whether inevitable or induced by governmental policies or by the profit seeking responses of individual companies, it seems more prob-

⁷ J. H. Dunning, "American Investment in British Manufacturing Industry," London, 1958, p. 167.

⁸ "Survey of Current Business," September 1961, pp. 23-24.

able that the effect of oversea affiliates and licensing will be adverse for the U.S. trade balance. They certainly appear likely to accelerate the speed with which knowledge of advanced U.S. methods is spread throughout the rest of the world.

Of course, these factors work both ways. European affiliates have been established in the United States and there are American companies that have been licensed to produce European and other foreign designs that are superior to those available in the United States. Nevertheless, an increase in the speed with which new products or methods are transferred is more advantageous for less advanced countries than for those that are in the forefront of technological development.

However, the diffusion of knowledge is scarcely likely to become instantaneous, and it would be of interest to know whether the United States is maintaining its past superiority in developing new methods and products. Research and development expenditures of the United States, it is known, are still many times that of other industrial countries,⁹ but it is not known whether the difference is narrowing or not. The importance of this question arises from the fact that the monopoly that an innovating country enjoys on a new product is almost always temporary; even without foreign affiliates or licensees, as knowledge of the new product spreads it is sooner or later successfully imitated abroad. In many cases it will turn out that the innovating country does not enjoy a longrun comparative advantage in producing the new product; thus it sees today's exports become tomorrow's imports. This has happened to a long list of American products from sewing machines to transistors. Furthermore, it is possible that the speed with which innovations are imitated or replaced by superior innovations may be increasing.

If the technological gap between the United States and other industrial countries is, indeed, narrowing, an important source of a demand for dollars is being weakened and the maintenance of our trade position being made more precarious. It is extremely difficult to assess what is happening in this area. One can point to important innovations that have recently come from other countries, but the importation of improved methods is not new. Thus, if one cites the recent import of the oxygen processes for steelmaking from Austria, Germany, or Sweden, it is possible to point to the earlier imports of the bessemer and open hearth processes from England and somewhat later, the extrusion process of squeezing cold steel into desired shapes from Italy. In one area, however, U.S. basic research and development work should be far ahead of that of other countries if the returns are at all proportionate to the investments that have been made—viz, atomic science. If this work begins to produce an economic return the margin of U.S. technological leadership may be strengthened.

More generally, rapid growth in output appears to favor innovation,¹⁰ and a maintenance of the recently developed superiority in the

⁹ For example, a recent comparison of the United States and British research and development expenditures concluded: "After adjusting the exchange rate to get a comparison which is, as near as possible, in real terms, it seems that American industry's research expenditure is over five times as large as British industry's, as an absolute figure; it is nearly three times as large per employee, and twice as large as a percentage of net output." See C. Freeman, "Research and Development: A Comparison Between British and American Industry," *Economic Review* (National Institute of Economic and Social Research, London), May 1962.

¹⁰ Cf., J. Schmookler, "Economic Sources of Inventive Activity," *Journal of Economic History*, March 1962.

rates of growth of the six and of Japan would not augur well for the United States. Full use of capacity in the United States with the consequent stimulus to investment (foreign as well as domestic financed) and innovation would, on this account at least, be beneficial to the trade balance.

POLITICAL FACTORS

No account of the American position in international trade, however short, would be complete without reference to the way in which it has been fortified by political factors. The relatively small importance of international trade to the American economy and the dispersion of retaliatory power among a fairly large number of trading partners left the United States free to use its great political power to limit or withdraw access to the domestic market whenever foreign producers made inroads that were damaging to American interests. Although the broader political compulsions to which the United States was subjected, especially after the beginning of the cold war, caused this power to be used rather sparingly,¹¹ the very threat of its use reduced the incentives of foreign producers to make the investment required in many lines of industry to cultivate the U.S. market.

In the last few years, however, the situation has been changing. First, the balance-of-payments difficulties of the United States have for the first time in generations placed it in a position where a sensitive economic nerve was exposed to the good will of other countries. Second, the rise in relative economic power of other countries cannot be ignored. For example, the real gross national product of the five major members of the Common Market expanded from something like 40 percent of that of the United States in 1950 to 55 percent in 1960, and if the United Kingdom is added the change is from 60 percent in 1950 to 75 percent in 1960.¹² The coalescence of other countries into trading blocs, of which the Common Market is the prime example, has enhanced the significance of these changes. Indeed the formation of these blocs may have a more lasting significance than the difference between EEC and U.S. rates of growth since the probability of survival is higher for the Common Market than for the growth gap.

THE IMPACT OF THE COMMON MARKET

The forces working against the U.S. trade position thus arise fundamentally from changes in the technology of transportation and communications and from basic changes in the economic structure of Western Europe. Western Europe has been the chief beneficiary of the enhanced geographical mobility of the elements that historically have been primarily sources of American advantage in international trade. Furthermore, Western Europe proceeds toward Americanization from an internal dynamic as well as from external effects flowing from the United States. As incomes rise, costly and high quality products begin to find domestic markets. Domestic industries arise to cater to these demands, and supplying industries develop to produce the improved materials and the new machines necessary to make the new goods.

¹¹ See my paper in the *Harvard Business Review*, March-April 1962.

¹² Based on rough extrapolations of U.S. price weighted estimates given in M. Gilbert and associates, "Comparative National Products and Price Levels," Paris, 1957.

These changes were flowing at full tide before the advent of the Common Market at the beginning of 1958, and the new organization has probably added to them only marginally. It is easy to exaggerate the purely economic impact of the Common Market upon its members. The Six were growing rapidly before they joined together as well as afterwards; indeed in the 4 years preceding the Common Market (1953-57) industrial production in the six countries combined expanded by 40 percent and their trade with one another by 78 percent, while in the 4 ensuing years (1957-61) the corresponding percentages were 30 and 64, respectively. The real threat posed by the organization of the Common Market for the trade position of the United States is the greater concentration of economic and political power than had previously existed, particularly since there are built-in factors that may cause this power to be used in ways that will be harmful to American exports.

Before turning to these political aspects, however, let us examine briefly the respects in which the advent of the Common Market brings or accelerates economic changes that weaken the U.S. trade position.

In the first place, the Common Market institutions may have had some effect in producing more rational practices with respect to certain raw materials than might otherwise have been followed. The complete elimination of tariffs and other restrictions on intracommunity trade in coal and steel, achieved under the European Coal and Steel Community (ECSC), reduced transport costs by rationalizing channels of distribution. In coal, for example, mines near national boundaries began to serve areas determined by economic rather than political factors. There are some signs also that the European Communities (i.e., the ECSC, EEC, and Euratom) aided by pressure from the Italians (who have no coal and depend upon cheap oil from external sources), will hasten the process of relaxing restrictions against the import of oil so as to obtain cheap energy supplies despite unfavorable effects on coal. Belgium has surely gone farther in closing down high cost coal mines than she would have been able to do without the political and economic support of the ECSC. Of course, there are some offsetting policies which tend to raise material costs, but these affect mainly tropical products from French-associated areas in Africa and are probably less important in their overall impact upon materials costs than the policies relating to coal and steel.

Secondly, the Common Market has dramatized the European market and made it more attractive to American capital and enterprise. The Common Market thus has tended to accelerate the process by which American enterprise, technology, and capital rather than American goods move across the ocean.

Third, the formation of the Common Market seems to have provided a stimulus to the growth of large size firms. A wave of mergers, affiliations, and understandings has probably led to larger size and lower cost plants, and has increased the degree of product specialization in plants of a given size. It has led also to larger firms which are more strongly placed with respect to research, finance, and foreign marketing than the smaller ones they replaced. The extent and significance of merger movement in the Common Market are difficult to assess. It is conceivable that what is going on is merely an adjustment by business to the new situation created by the prospect

of free trade within the Community. If so, the policy of live and let live, which seems to have characterized Western European business psychology to a greater degree than that of the United States, may soon reassert itself. It is possible that this attitude was as responsible as the inherent limitations of a market of the size of say England or France or Germany for the existence of smaller scale plants than in America. Of course, the EEC has taken steps to implement the anti-cartel provisions of the Rome Treaty, but whether European business will become imbued with a new competitive spirit either through self- or official-inspiration is far from clear. In any case, at the moment there has been a clear gain in efficiency from the rationalization movement that has taken place.

Fourth, the formation of the Common Market has made a contribution to the rate of growth, and thus created a greater market and a greater opportunity for the mass production of standard items and for the large scale production of more costly goods that were almost an American monopoly. In TV and radio, for example, the European market is already on a par with that of the United States in the quality of the product which it can absorb; in most other consumer durables, however, it is 10 to 30 years behind the United States. Of course, the expansion of the European market has been a boon to American exports thus far; it has offset any tendency for trade diversion to hurt U.S. exports. Indeed, U.S. exports to the Common Market have expanded more rapidly than U.S. exports as a whole since 1957 or 1958. However, the European boom can hardly last forever, and when the domestic absorption of European output slackens, U.S. producers may feel the full impact of the new capacities of European firms to produce goods in varieties, qualities, and quantities which formerly could be obtained only in the United States. Many American businessmen fear just this. They feel that their European competitors have been satisfied to follow the price leadership of American firms in the American and sometimes in other markets; this enables European firms, in view of their lower costs, to enjoy high profit margins on their foreign business at a time when their plants are occupied with domestic orders anyway. Of course, if the European countries succeed in maintaining full employment economies with only mild and infrequent recessions¹³ further European inroads on markets held by the United States will depend upon the longer run growth of European capacity.

Finally, the agricultural policy of the Common Market threatens to increase the degree of self-sufficiency of the area by stimulating the expansion of internal production. New export surpluses such as French wheat have already appeared, and if high internal prices are added to the system of variable levies giving preference to Community products, the United States which has been exporting over \$1 billion of agricultural products to the Common Market may find itself reduced to the position of a residual supplier especially for grains. Unlike the other factors we have listed, this one involves competition between United States and European producers only for the markets of the Community itself. To the extent that it will affect competition for other markets, it will be unfavorable to the EEC because it will tend to raise the level of costs.

¹³ See the paper by Milton Gilbert and the discussion by Walter Salant in the May 1962 *American Economic Review*.

With the possible exception of the last factor, the adverse influences upon U.S. trade that we have discussed thus far have stemmed from economic changes. The most important consequences of the Common Market for the U.S. trade position are, however, likely to flow from a new political fact: For the first time in many decades the United States is faced in the Western World with an almost equal aggregation of economic and political power. The uncoordinated, sometimes conflicting, and often offsetting policies pursued by six governments are being replaced by coordinated decisions reached in Brussels. Even without the addition of new members, the decisions are taken on behalf of countries whose combined importance in world trade already equals or exceeds that of the United States and who provide a significant fraction of the U.S. export surplus.¹⁴ The bargaining power of the Common Market, already substantial, will of course be further increased if Great Britain and other new members and associates are admitted. As the geographical scope of the Common Market is expanded, it will embrace an increasingly diversified area and will become more self-sufficient and less dependent upon external trade than the individual member countries have been. Thus, like the United States, the new entity will have considerable leeway for deciding upon more or less liberal policies.

How will this power be used? Some parts of the answer seem clear. In the first place, the power of the Common Market is likely to be used to retaliate promptly and fully in response to any adverse actions taken in trade matters by another country, including the United States. This has recently been illustrated by the action of the Council of Ministers of the EEC in raising the common external tariff on a half dozen product groups in reprisal for U.S. increases under the GATT escape clause in the duties on carpets and glass. This type of response may be expected not only because of the natural tendency for partners to support an aggrieved member (Belgium, in the carpet and glass case) against an outsider, but also because of the psychology underlying commercial policy in Western Europe. In the latter connection, it is not much of an exaggeration to describe the postwar history of the dismantlement of trade barriers in Western Europe as a story of careful horsetrading in which no concession was given without extracting one of equal value.¹⁵ In the past, however, retaliatory action by European countries against American protective measures has been infrequent and never so prompt and forthright; countries almost always awaited the negotiation of compensatory concession from the United States to replace the ones that had been withdrawn. The past patience of European countries may, of course, be attributable to the fact that their quantitative restrictions against American goods were still in effect, and as long as this was the case they could not feel quite so ill treated by U.S. actions. However, it may also have been due in part to the absence of a mechanism such as the Common Market which has the power to retaliate effectively and without the fear of the consequences that a small country acting alone would have.

¹⁴ In 1961, for example, U.S. exports to the Six were \$3.5 billion and imports from them were \$2.2 billion, while the overall U.S. trade surplus was \$5.3 billion. OECDE, "Foreign Trade," series A, April 1962.

¹⁵ Perhaps this helps to explain the poor record—relative to that of the United States—of most of the Western European countries in opening their markets to the "low-wage" countries.

A second factor affecting the use of the power that the EEC has is the inherent tendency of any large area composed of diverse interests to reconcile conflicts over the resolution of domestic difficulties by shifting as much of the burden of adjustment to outsiders as possible. This is evident in U.S. commercial policy. For example, the extensive protection accorded by the United States to its textile industry, including high tariffs and new legislation authorizing the establishment of import quotas, reflects pressures arising from the failure of domestic consumption of textile products to expand as rapidly as productivity, with the result that employment levels have been declining. In the short history of the Common Market, there are already a number of illustrations of this tendency to resolve difficulties by cutting off the outsider. These include instances of troubles caused by shortages as well as those caused by surpluses. The most important case involving a surplus, which related to coal, developed in the late 1950's. The desirability of a reduction in imports from the United States and other third countries was virtually the only point on which the Six could agree in their prolonged and difficult negotiations on means of meeting the coal crisis.¹⁶ Analogous action was taken in a number of cases involving shortages; for example, last spring the European Commission recommended to the Dutch Government that it permit the normal volume of potato exports to member countries and restrict exports to third countries.

Even if it seems reasonable to suppose that the Common Market will retaliate when the occasion arises and shift the burden of adjustments to third countries when internal difficulties develop, there remains a large and important area of doubt about the way in which the Community will wield the great power which its size and importance confers upon it. Although the Rome Treaty contains a clause stating that the member countries intend to follow a liberal commercial policy (art. 110), the commitment is quite general and could conceivably be subordinated to other objectives of the Six. At the risk of some oversimplification, one might say that there are two schools of thought within the Community on this matter. One school, for which the French are the spokesmen on many issues, takes the view that the Community represents, among other things, a club for the mutual benefit of the member countries at the expense of outsiders. This position has been generally opposed by the Dutch and also by the Germans, both of whom tend to prefer more liberal trading policies for the Community. Of course, the difference is one of degree, albeit an important one, because some element of tariff discrimination in favor of fellow members is the essence of a customs union. While it is true that the conception of the EEC goes far beyond a mere customs union, it is also true that the most immediate practical attraction of the EEC to participants and would-be participants is its customs union feature.

There is, however, ample room for differences in emphasis, and this may be seen in the positions taken on a number of important problems by the French on the one hand and the Dutch and Germans on the other hand. For example, the French generally resisted the efforts of the Benelux countries and Germany to obtain exceptions from the

¹⁶ This case is more fully discussed in my book entitled "Domestic Interests and International Obligations," University of Pennsylvania Press, forthcoming.

common external tariffs¹⁷ in the form of tariff quotas for products formerly obtained from third countries. The French argued that Community sources of supply should be sought and developed to the maximum extent possible, while the Dutch and the Germans wished to maintain their former trade ties. In the outcome, about half of the 150 requests for tariff quotas were granted; the common external tariff was reduced in some of the other cases. (The 150 requests covered about 2¼ percent of EEC imports from third countries in 1960.¹⁸)

Another issue in which the difference in viewpoint played an important role concerned the margins of preference to be accorded the products of associated countries and territories, particularly tropical products from African areas. The issue arose recently because the initial 5-year arrangement with the associated territories and countries had to be renegotiated. The French wished to maintain high common external tariffs, thus affording the associated African areas a sheltered position in the markets of the Community. The Dutch and the Germans, whose imports from Commonwealth and other non-Community African areas were three or four times as great as their imports from associated areas, favored low common external tariffs. The compromise that appears to be emerging involves moderate or low external duties offset by enlarged subsidies for the associated areas.

CONCLUSIONS

There are a number of basic developments that seem to be reducing the strength of the American position in international trade. The exhaustion of some low-cost domestic sources of material supplies and economies in the use of natural raw materials have reduced the margin of advantage enjoyed by the United States from the availability of cheap natural raw materials. The American comparative advantage in agriculture has been offset by governmental policies that limit increasingly the ability of the United States to market its agricultural products commercially. The greater geographical mobility of entrepreneurs and of capital and the more rapid dissemination of new techniques and new products have dispersed to many countries, especially those in Western Europe, important elements of strength that formerly favored the United States. The growth of income and wealth in foreign countries, particularly in Europe, have made it more possible for foreign producers to take advantage of the economies of mass production, and sizable foreign markets have begun to develop for high cost quality products which formerly could be marketed on a large enough scale to warrant domestic production only in the United States.

The advent of the Common Market has strengthened many of these adverse economic tendencies, but, more important, it has created a center of political and economic power that can retaliate against any increase in American protection and that may in any case be driven to use its power to exclude foreign competition. There are in the Common Market, just as in the United States, divided opinions on the

¹⁷ Actually, the exceptions were sought from the duties that would have to be established in the course of the first movement toward the common external tariff, as the treaty provides that the members are to adjust their duties to the common ones in a series of three steps.

¹⁸ Bulletin of the European Economic Community, September-October 1961, pp. 39-45.

choice between protectionism and liberalism. A distinct choice of one position or the other by either entity would undoubtedly have strong repercussions on the other's policy.

It is possible, of course, that these losses of advantage may be offset by a new flowering of innovations, particularly in various fields of application of atomic science, such as energy, medicine, and telecommunications.

Even if this does not occur or if its impact is too small to offset fully the other adverse effects, it does not mean that the United States would be left without a comparative advantage in a significant range of products. Indeed, the rapid growth in trade between the more nearly equal partners of the Common Market suggests that trade need not rest upon large differences in economic structure.

However, as far as the Atlantic Community is concerned, such trade would be trade between equals rather than trade between a technological leader and a number of other countries none of which has so high a per capita income or so extensive a market. The real terms of trade that can be maintained by a technological leader are superior to those that can be attained by one of a group of equals. The reason is that the leader's currency is placed at a premium as a result of its power to command goods that cannot be obtained elsewhere.¹⁹

Even a sharp adverse movement in the terms of trade would hardly have severe effects upon the real income of a country such as the United States whose imports are equivalent to less than 3 percent and exports to less than 4 percent of its gross national product. The real problem would be to find the optimum means for the necessary adjustment in the terms of trade to take place.

If the United States has to accept less favorable terms of trade, there are two ways in which this can be accomplished. One way is to depreciate the exchange value of the dollar in terms of other currencies. This possibility has been receiving increasing attention recently both in terms of a one-time devaluation and in terms of establishing a free or floating rate of exchange. Either of these alternatives would tend to weaken the strength of the forces that are moving the world toward a higher degree of economic integration.

The other way is to increase the internal purchasing power of the dollar relative to that of other currencies while keeping exchange rates fixed. This used to be discussed entirely in terms of an absolute deflation of prices and wages, and in such terms it clearly is not politically feasible. In a world of rising prices, however, the same result can be achieved by confining the movement of the price level to a smaller rise than that which takes place in other countries. It may not be too much to hope that one focus of the international monetary cooperation which is developing in the Western World will take the form of coordination as well as consultation concerning the relationship between price movements and balance-of-payments necessities; countries in surplus might be encouraged to loosen wage and price reins, and those in deficit to tighten them. Relative price movements in the right direction, from the standpoint of the U.S. deficit, have

¹⁹ There are many different concepts of the terms of trade. The simplest, which will serve for our purposes, is the one which measures changes in the terms of trade by dividing an index of export prices by an index of import prices. The commodity terms of trade, as this concept is called, tells us what are the changes in the quantity of imports we obtain for one physical unit of exports.

occurred in the last few years, whether influenced or not by international cooperation.

On the political side, the main implication that has to be drawn from the rise in the political and economic power of Western Europe and particularly the Common Market is that the United States is no longer able with impunity to adjust its tariff and trade measures unilaterally to meet difficulties arising for domestic industries.²⁰ While the postwar trade record of the United States is no worse and in some respects better²¹ than that of most other industrial countries, there is a larger gap—which has been well publicized—between the trade philosophy consistently preached by all our postwar administrations and the invocation of quantitative restrictions on such things as dairy products, lead and zinc, and oil and the increases in tariffs on such products as watches, bicycles, and glass. The result is that the United States is not in a strong moral or political position to oppose the inherent tendency of the Common Market to act in a similarly protective manner when confronted with its own internal problems. Furthermore, more than two can play, and there are other—though less powerful—countries and blocs ready to enter the game.

If it turns out in fact that other countries or groups become more ready to withdraw concessions and to retaliate when the United States withdraws them, the United States will have three alternative courses of action. One is to accept the fact that other nations like the United States will resolve conflicts between domestic interests and international obligations rather consistently in favor of the former. This course, however, would lead to the fragmentation of the Western World and to a trade jungle, and it may be rejected out of hand.

A second possibility is the acceptance by the United States, and other countries, of tighter controls over escape clauses. This would involve a sharp departure from present GATT practice, under which the unilateral invocation of escape clauses tends to be highly permissive. Tighter controls can be achieved either by developing specific and detailed criteria which must be satisfied before the escape clause can be invoked, or by establishing some international control over the act of invocation. The former has been tried only in Benelux among the major international arrangements affecting trade matters, and then only temporarily; it is too difficult to develop in advance objective criteria that will be satisfactory for every situation. Experience in Benelux, the OEEC Code of Liberalization, the European Coal and Steel Community, and the European Economic Community thus favors international authority over invocation rather than an attempt to devise objective criteria which will effectively narrow the scope for unilateral action.

International control over the invocation of escape clauses may take many different forms. The group of member countries in a new or revised GATT might, for example, have the right to veto unilateral invocation by say a two-thirds vote. An illustration of an arrangement that would vest more stringent control of the use of escape clause in the group of nations would be to provide that the escape clause

²⁰ Materials in the remaining paragraphs are drawn largely from the author's "Domestic Interests and International Obligations," in press.

²¹ See the previous note on the treatment of goods from low-wage countries.

could not be invoked without its prior concurrence by a majority or by a two-thirds vote.

In view of the widespread opposition and fear that such a proposal would undoubtedly arise, it is worth stressing that the experience in organizations referred to above invariably indicates a reluctance on the part of the member states to use the power of the group, even when the existence of such power was explicit, to impose a course of action upon any national state whether the issue related to an escape clause problem or anything else. Of course, the existence of the power of the group, even though it not be used, alters the psychological and political framework within which a safeguard program is resolved. It makes it less likely that domestic pressures will prevail as easily as when safeguards may be invoked unilaterally.

A tomorrow will have to come when the Western World will move in this direction, but there is a third alternative that may seem preferable at the moment, especially to those who vehemently oppose any measure that smacks of the surrender of U.S. sovereignty. This is to devise trade expansion commitments in broad terms, leaving each country with considerable freedom both to select the items upon which concessions will be made and subsequently to make substitutions. The commitment might consist of the obligation to achieve a given percentage reduction in the average rate of duty collected on imports as a whole or one each of a number of categories of imports. Some duties could be subjected to less-than-average and others to more-than-average reductions, so long as the overall target percentage cut was attained. Furthermore, when a particular duty reduction turned out to create unanticipated difficulties it could be withdrawn and another substituted for it as long as the required average reduction was maintained. Placed in a framework of the steady movement of average duties toward lower levels, the selection of the most innocuous duty reductions as those made first will matter little. Similarly, freedom to make substitutions, unless grossly abused, will facilitate the transition to freer trade without creating areas of permanent protection.

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In summary, an important aspect of the balance-of-payments problem facing the United States is the growing equality of other foci of political and economic power. The establishment of the Common Market has contributed significantly to the political phases of this development. The economic phases appear to be rooted in the dynamics of the Western European economy, and the Common Market has merely added a further stimulus. These developments will require a period of readjustment in relationships. On the political level they leave the United States with less freedom of action than it had before, and on the economic level with the need to accept poorer terms of trade unless there is a burgeoning of a new technological revolution that is uniquely American.

THE EUROPEAN ECONOMIC COMMUNITY
AND AMERICAN AGRICULTURE

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THE EUROPEAN ECONOMIC COMMUNITY AND AMERICAN AGRICULTURE¹

INTRODUCTION

In order to maintain a condition of equilibrium in the balance of payments over time, a country must constantly develop new export lines or expand existing ones to compensate for the loss of competitiveness in other areas that normally occurs in a changing world economy. The products that will provide for expanded export earnings will usually be found in those areas of the economy in which productivity gains have been above the national average. Applying this reasoning to the United States, one would expect to find that our exports of agricultural products should have increased a great deal in the post-war period to mirror the substantial gains in productivity recorded in that sector. This has in fact been the case, but the expansion has been limited by the fact that trade barriers on agricultural products have not been liberalized to the same extent as those on industrial products. The future prospects for the U.S. balance of payments will in part depend on the treatment afforded agricultural products by the major trading nations.

The agricultural trade of the six original members of the European Economic Community (Common Market) represents a substantial portion of total free world trade. While the EEC was already of concern to agricultural exporting countries, this apprehension was substantially increased with the announcement that the United Kingdom, the world's largest agricultural importer, was seeking membership. It therefore seems appropriate and worthwhile to examine the implications of the European Economic Community from the point of view of the agricultural interests of excluded countries and of the United States in particular.

THE EEC AS A MARKET FOR AMERICAN AGRICULTURE

The American farmer is more dependent on foreign markets than other producers in our economy. U.S. agricultural exports in the year beginning July 1960 reached a value of close to \$5 billion, the largest figure ever achieved. Since the end of the Korean war, they have grown at an average annual rate of 9.2 percent. The value of agricultural shipments abroad, to be sure, has been swollen by the operation of Public Law 480 programs and they have been of particular importance in causing year-to-year changes. This factor is generally overlooked, however, as an explanation of the growth of agricultural exports as the ratio of nondollar sales to total value of exports in 1960-61 was only 32 percent as compared to an average of 37 percent for the

¹ The research for this paper was done while the author was on leave from Yale University on fellowship grants jointly given by the Social Science Research Council and the Brookings Institution.

years 1954-57. (21) The importance of exports is highlighted by looking at the relationship of foreign shipments to domestic production of a number of major commodities. Within recent years, over 25 percent of our production of wheat, barley, rice, oilseeds, hides, and lemons and limes, is exported along with the more traditional cotton and tobacco. For some minor products, mohair and field peas, exports are essentially the only market. The economic well-being of domestic producers of these products is ultimately dependent upon foreign markets.

Traditionally Western Europe has been the largest purchaser of U.S. agricultural goods. Data for recent years are shown in table 1. The six original members of the Common Market together bought an average of \$1 billion worth of U.S. agricultural products per year from 1955 to mid-1961. Since Great Britain alone purchased close to half a billion dollars, the sum of the EEC plus the United Kingdom represents about one-third of our total agricultural exports. If we concentrate attention on exports for hard currencies, sales to the EEC plus the United Kingdom represent fully half of the total market. Europe buys a substantial share of all of our major export commodities with the exception of wheat. In the case of feed grains, moreover, this share rises well above 50 percent and is clearly of paramount importance.

TABLE 1.—Exports of U.S. agricultural products

	Average 1955-56 1957-58	1958-59	1959-60	1960-61
	In millions of dollars			
Total exports.....	4, 073	3, 719	4, 515	4, 944
Dollar sales.....	2, 535	2, 465	3, 201	3, 402
Exports to EEC.....	941	792	1, 121	1, 118
Exports to U.K.....	432	399	474	483
Exports to EEC plus U.K.....	1, 373	1, 191	1, 595	1, 601
	Percent			
U.S. exports to the EEC as a percent of total U.S. exports.....	23.1	21.3	24.8	22.6
U.S. exports to the EEC plus U.K. as a percent of total U.S. exports.....	33.7	32.0	35.3	32.4
U.S. exports to EEC as percent of U.S. dollar sale.....	37.1	32.1	35.0	32.9
U.S. exports to the EEC plus U.K. as a percent of U.S. dollar sales.....	54.2	48.3	49.8	47.1

POSTWAR TRENDS IN EUROPEAN AGRICULTURE

European import demands for agricultural products have been affected by changes in total population, changes in per capita consumption of agricultural goods, and changes in domestic agricultural production. Of these three factors, the changes in the availabilities of domestic supplies has been the most important. European agricultural production as a whole recovered at a rapid pace from the devastation of the war, although at a somewhat slower rate than industrial recovery. The countries with the highest rates of growth of agricultural output were found in the northern part of the European Continent which includes all of the EEC except Italy, (tables 2 and 3) while the eastern and southern European countries lagged much further behind.

As in the United States, agricultural output was greatly influenced by the agricultural policies pursued by the various countries. In the early postwar years, there were general food shortages within Europe. These shortages, causing inflationary pressures plus three other forces were of primary importance in shaping agricultural policy. There was a desire to protect the balance of payments by reducing the need for imported foodstuffs to a minimum. This would also serve the aim of conserving on scarce dollar resources since the United States and Canada were the only major areas of surplus available. The second force was a desire to satisfy the political demands of the agricultural populations which were and still are the backbones of the conservative parties in Europe. Finally, a strong feeling of stimulating domestic production for reasons of national defense was prevalent. This required a level of production sufficient to satisfy a minimum of domestic needs and also a pattern of farm production among products that paralleled the patterns of domestic consumption. The consequences of the policies forthcoming in response to these forces were substantially higher volumes of production with relatively little concern as to costs or efficiency. At that time it was felt that the savings of foreign exchange were great enough to offset the disadvantages of relatively high food costs.

TABLE 2.—*Indexes of aggregate agricultural production in the European Economic Community, selected years*

[Prewar=100]

	1947-48	1950-51	1953-54	1956-57	1959-60
West Germany.....	63	102	119	124	133
Belgium-Luxembourg.....	80	115	127	134	139
France.....	80	109	120	122	131
Italy.....	88	108	131	132	150
Netherlands.....	80	114	127	136	151
European Economic Community.....	77	108	123	126	138

TABLE 3.—*Average annual compound growth rates of agricultural production in the European Economic Community for 3-year periods*

[In percentages]

	Ending in 1950-51	1953-54	1956-57	1959-60
West Germany.....	17.4	5.4	1.3	2.3
Belgium-Luxembourg.....	12.9	3.2	2.0	1.3
France.....	10.8	3.2	0.5	2.3
Italy.....	7.2	6.6	0.2	4.5
Netherlands.....	12.7	3.5	2.3	3.5
European Economic Community.....	11.8	3.5	1.0	3.2

By 1953, food shortages for the EEC countries were a thing of the past and as a whole these countries had also reached a favorable balance-of-payments position. The fear of an inflation of farm prices that would result from a "free agricultural market" was replaced by a fear of farm surpluses and of too sharp a decline in commodity prices. The primary aim of agricultural policy became the improvement of the economic health and well-being of the rural populations. Farm incomes while rising tended to fall behind the income growth of nonfarmworkers, widening the differential already exist-

ing. In order to bolster farm incomes, high price supports were adopted. When interest shifted from output to profit, farm costs began to be considered in greater detail. Measures to improve farm productivity which had already taken place were greatly intensified. The agricultural producers responded to high price supports and technical aid by increasing farm output even further. While only modest increases occurred between 1953-54 and 1956-57, the downward trend in the growth rate was reversed in the following 3 years (1956-57 to 1959-60) and reached 3.2 percent.

The rapid expansion of agricultural production within the EEC countries must be attributed to factors other than quantity of inputs of land and labor, both of which declined from their prewar levels. When taken together, the agricultural area of the EEC has declined mostly by 1.8 percent as compared to prewar (9). The amount of arable land, however, has declined by 3.6 percent and the amount actually tilled by 8.4 percent. Only grasslands, both temporary and permanent, have expanded and by 25.7 percent and 5.7 percent respectively. On the labor side, aggregate indices of agricultural employment indicate that in 1950, agricultural employment was only 90 percent of prewar and dropped further to 79 percent by 1956. Since the total labor force within the EEC has expanded, agricultural employment as a percentage of total employment dropped from 35 percent in the prewar period to 30 percent in 1950 and to 26 percent in 1956.

Just as in the United States, the increases in output in the EEC can be attributed to substantial gains in productivity, both on a per hectare and per man basis. The primary factor has been the utilization of improved strains of both plants and animals. Much research has gone into seed selection and breeding programs with very good results. Secondly, increased use of old and new chemical fertilizers, pesticides, and herbicides have revolutionized output in some areas. Mechanization that is so in evidence in U.S. agriculture has also gone forward in Europe. This has added substantially to output per man. In particular, the increased use of tractors has replaced many farm draft animals, freeing for commercial production acreage that was previously needed to feed these animals. It should also be mentioned that advances in the education of the agricultural populations and the advisory services by the Government and private organizations have made the transition from knowledge to practice possible.

Other factors of some importance include advances in transportation facilities making possible commercial agriculture in areas previously used only for subsistence farming. The increase in specialization this allows also added to output. Advances in the food processing industry have helped the farmer by reducing the impact of seasonal factors in demand and supply. The expansion of credit and other financial services for the agricultural populations was also of some importance in making businesslike farm management easier.²

² An extensive discussion of postwar trends in European agriculture can be found in Dewhurst, Coppock, Yates & Associates, "Europe's Needs and Resources."

Consumption of agricultural products within the EEC has also risen quite markedly in the postwar period. Over the period 1950-51 to 1957-58, total consumption increased at an average annual rate of 2.8 percent (2). Less than half of this increase, 1 percent per year, can be attributed to growth in population. The major share is due to higher per capita levels of consumption. Of the major categories of food products, only bread grains and potatoes have had downward trends in per capita use (also fish, but this product is excluded from the analysis in general). On the other hand, larger increases in consumption were recorded in meat products, eggs, cheese, fruits, sugar, and butter; and smaller increases in vegetables, liquid milk, and other fats and oils. The increase in consumption of food per capita was accomplished without a substantial rise in total caloric intake as more expensive, low-calorie foods were substituted for bread and potatoes. Despite this not inconsiderable rise in consumption, the even larger increase in production has meant a trend toward greater self-sufficiency.

The trend toward self-sufficiency can also be seen in the figures for international trade in agricultural products of the EEC countries as shown in table 4. As one might expect, the growth of imports reflects inversely the changes in domestic production. In the earlier period, 1953-56, when domestic production grew only modestly, imports expanded at a rapid rate. In the later period, however, domestic production picked up and imports were retarded. Exports of agricultural products by the EEC countries continued to grow throughout the entire period, so that when we consider net imports (imports minus exports), there has been very little growth since 1956. The movement toward self-sufficiency is pointed up in the individual country figures. France and the Netherlands have had actual declines in net imports (expansion in net exports) within recent years. Net imports of Belgium and Luxembourg have remained stationary while domestic production continued to grow. Only in West Germany and Italy have net imports increased and the erratic performance shown by the figures of the latter country can be attributed to very unusual harvests. Thus Germany is the lone promising market for future sales of agricultural products by other countries. These aggregate trade figures tend to understate the movement toward self-sufficiency since they include both temperate products which meet domestic competition and tropical zone products which enter without trade restrictions because domestic substitutes are not available. Great increases in self-sufficiency in temperate area products are required to offset increases in tropical zone imports if the overall relationship between net imports and consumption is to show a decline.

TABLE 4.—*Foreign trade in food and agricultural products*

[Millions of dollars]

	European Economic Community	France	Belgium-Luxembourg	Germany	Italy	Netherlands
Imports:						
1953-56 (average)-----	5,023	1,441	521	1,888	536	631
1957-----	6,182	1,667	565	2,567	684	760
1958-----	6,020	1,724	545	2,348	677	728
1959-----	6,263	1,481	584	2,673	717	808
1960-----	6,807	1,605	801	2,799	969	833
Exports:						
1953-56 (average)-----	2,348	668	143	177	441	919
1957-----	2,853	817	158	229	638	1,011
1958-----	2,730	726	185	234	547	1,038
1959-----	2,927	720	186	268	575	1,179
1960-----	3,309	960	198	287	610	1,254
Net Imports:						
1953-56 (average)-----	2,676	774	384	1,712	95	-288
1957-----	3,329	850	407	2,278	46	-251
1958-----	3,290	998	360	2,114	130	-312
1959-----	3,336	761	398	2,405	142	-371
1960-----	3,498	645	405	2,512	359	-421

(SITC 0, 1, 4, 22, 29, 92)

Source: OEEC "Agriculture and Food Statistics": Paris, 1959. OEEC "Agriculture": Paris, 1961.

AGRICULTURAL POLICY IN THE EUROPEAN ECONOMIC COMMUNITY

On January 14, 1962, the Council of Ministers of the European Economic Community announced the reaching of an agreement on agricultural policy and the decision to allow the Common Market to pass on to its second transitional stage. The significance of these developments is that they practically assure, if assurance was necessary, that the EEC as an entity will be maintained and that progress will continue toward the goal of full economic integration among the member countries.

During the first transitional stage, very little was done to integrate agriculture within the EEC. Some relaxation of quantitative restrictions on intra-EEC trade plus firm constraints against increases of restrictions on this trade were agreed to but nothing more. The job of extending the principle of integration to the agricultural sector was left to the implementation of a common agricultural policy. The consequences of the policy decisions actually taken by the EEC with respect to agriculture reach far beyond the borders of the member countries because of the international trade implications involved.

AGRICULTURE IN THE ROME TREATY

Agriculture has always occupied a special if not privileged position in the spectrum of economic policies of European nations. The drafters of the Rome Treaty did not upset this historical precedent. All of the member countries interfere quite drastically in agricultural product markets so that general rules which might work perfectly well for industrial goods could not become the basis for agricultural policy. In particular it was feared that if the market for agricultural products within the EEC were unified without safeguards there would be substantial adverse repercussions upon the income levels of the agricultural populations. Furthermore it was clear that rules to remove tariffs and quotas were not sufficient for bringing about unrestricted trade

when other protective devices and even state trading occurred as was the case in European agriculture. There was also ample historical warning that progress toward unification of agricultural sectors of different countries was extremely difficult. The experience of the Benelux economic union is a case in point. Despite the fact that all tariffs on the trade of industrial goods between Belgium and the Netherlands have been abolished since 1948 and quota limitations on these goods were removed shortly thereafter, practically no progress has been made toward a unified agricultural sector. A common agricultural policy was agreed to in 1955 with provisions for implementation by 1962, but very little of a concrete nature has actually been done. This suggests at the very least that agriculture is probably the most serious stumbling block to economic integration.

With such pessimistic prospects, a strong argument can be made for excluding agriculture entirely from integration plans. Such was not the decision of the member countries. There were powerful economic reasons for having to include it. The agricultural sectors of France, Italy, and the Netherlands are a very important part of their respective economies. This importance is magnified for the Dutch, a net agricultural exporter, since agricultural products provide a major share of foreign exchange earnings. A further factor leading to this decision was the fact that by 1957, the prospects for troublesome agricultural surpluses in certain commodities were already appearing in France and a protected market outlet was considered highly desirable. It was also felt necessary to include agriculture if industrial integration was to be accomplished. Since food costs have a direct influence on industrial wage rates and raw material prices on direct production costs, a lack of a unified market for agricultural products with greatly divergent prices would give an unfair competitive advantage to the low price countries.

In the body of the Rome Treaty, title II is devoted to agriculture which includes some 10 separate articles. The treaty sets down the objectives of agricultural policy as follows:

(a) To increase agricultural productivity by developing technical progress and by insuring the rational development of agricultural production and the optimum utilization of the factors of production, particularly labor;

(b) To insure thereby a fair standard of living for the agricultural population, particularly by the increasing of the individual earnings of persons engaged in agriculture;

(c) To stabilize markets;

(d) To guarantee regular supplies; and

(e) To insure reasonable prices in supplies to consumers (art. 39, No. 1).

The treaty further states that in putting into practice the goals as directed, due account must be taken of—

(a) The particular character of agricultural activities, arising from the social structure of agriculture and from structural and natural disparities between the various agricultural regions;

(b) The need to make the appropriate adjustments gradually; and

(c) The fact that in member states agriculture constitutes a sector which is closely linked with the economy as a whole (art. 39, No. 2).

Direction was also provided by the treaty as to the procedure for formulating and approving a detailed common agricultural policy and set out alternative organizational forms and methods to be used in the policy for bringing about the objectives of the treaty.

COMMON AGRICULTURAL POLICY

In compliance with the treaty provisions, a conference of member states was called to deal with agricultural policy, and a draft proposal was formulated in June 1960 by the commission, after consultation of the Economic and Social Committee and the European Parliament. The proposal was known as the Mansholt plan and with some modifications became the basis of the agricultural agreement approved by the Council of Ministers. The agreement is quite extensive and has been described as—

* * * the first detailed legislated code on agriculture ever to have been adopted at the European level; even at the national level there is no precedent for such a complex of measures adopted concurrently and as an organic whole." (5)

However, the agreement is notable also for what was not decided. In the original Mansholt Plan, a large section was devoted to structural policy aimed at the longer run problems of European agriculture. Even though these provisions were considered noncontroversial, they were not provided for in the agreement.³ Furthermore some of the essential factors of marketing policy with respect to Community pricing decisions were left to future negotiations.

In a general sense, the agricultural agreement provides for the beginning of agricultural integration among the member countries and concurrently provides a mechanism for reaching two of the objectives set out in the Rome Treaty; the insuring of the income of the farm population and the stabilization of markets. The agreement treats in detail the marketing regulations for grains (except rice), poultry, eggs, pork, fruits and vegetables, and wine. In addition there are some general regulations concerning processed products of an agricultural origin, rules of competition for intra-EEC trade, financial arrangements for the operation of the agricultural policy measures, and principles for future regulations for dairy products, beef, and sugar. These measures cover products representing 47 percent of the value of trade within the Community in 1961.

While the regulations differ substantially from product to product, there are some features common to most of them (but not fruits and vegetables). The regulations call for the replacement of all types of restrictions on imports by variable levies that are calculated in such a way as to offset the difference in market prices between exporting and importing countries after adjusting for transportation costs. On intracommunity trade, these levies are to be reduced over time so that at the end of the transition period in 1970, there will be no barriers to intracommunity trade and a one price system will emerge. With re-

³ Some provision was made for financing structural type expenditures, but the details of the program intended were not included.

spect to imports from third countries, the levies will be calculated by a similar method but with an additional factor added on to insure that Community preference is maintained. These levies will not be reduced over time and in fact might increase if world and community prices diverged even further. The system presumably will work in such a way that the demands for agricultural products in any member country will be first met by domestic sources of supply and if these are insufficient, then imports from other member countries will be allowed and finally, if no member country can supply the market, then nonmember country supplies will be bought.

A system of export subsidies is also provided which will enable a member country with an exportable surplus but with a higher price level to export to another member country needing imports but having a lower price level. These subsidies are calculated similarly to import levies and will offset the difference in market prices. As the prices within the community converge to a one-price system, the need for these subsidies on intracommunity trade will be lessened and they will be reduced. Subsidies are also provided for exports to nonmember countries calculated in a similar fashion and this "export refund" system presumably will be permanent.

In addition to requiring funds for the export subsidy to nonmember countries, the agricultural policy envisions expenditures for intervention in the internal market (primarily grain) as required and for structural improvements. The money will come from a fund set up for that purpose, the European Agricultural Guidance and Guarantee Fund.⁴ The money will be supplied to the fund in part through contributions by member states according to a general formula already in the Rome Treaty and in an increasing portion from import levy receipts.

The most inexact section of the agricultural agreement deals with the system of price determination. While the goal of a single price for all member countries is endorsed, the mechanism for converging greatly divergent prices now ruling in the separate markets was not spelled out. The convergence could involve raising low prices or lowering high ones, or some combination thereof, but this was not decided. Furthermore, the eventual market price was neither set nor were criteria for its determination stated. This problem was postponed for future negotiation except for the requirement the prices actually set must be such as to provide a fair income to the efficient family farm. As in the past, member countries may set their own prices subject only to the constraint that they not be above the original German price nor below the French one. One of the major determinants, therefore, of future sales of agricultural products to the EEC by third countries is still unknown.

IMPLICATIONS OF THE POLICY

A natural question arises that, given the recent trends in European agriculture and in the EEC, in particular, what does the new agricultural policy imply for future exports by nonmember countries to the community and specifically the United States? An answer to this

⁴ During the early years the fund will only pay for part of the member government expenditures for these purposes, but will eventually pay for all of them.

question may be obtained by the development of a politicoeconomic model that will yield predictions of future aggregate imports by the EEC and the allocation of imports to various suppliers. Furthermore, in order to appraise the consequences of the common agricultural policy alone, a frame of reference for comparison must be developed. One could assume, of course, that in the absence of a Common Market, present levels of agricultural imports or present import consumption relationships would continue into the future. This would be a very poor assumption, however, since the avowed policies of the several governments indicated substantial changes in this relationship would be forthcoming. In order to have a meaningful yardstick for comparison, two estimates will be made. One estimate will assume that there was no Common Market and the other estimate will take the actual common agricultural policy as it exists today. This later estimate will be subdivided into a shortrun projection and a longrun projection.

The development of the model begins with a definitional relationship as follows:

$$(1) Y_a/L_a = \frac{P_a O_a - O_a \left(\frac{K_a}{O_a} \right)}{L_a}$$

where Y_a = the value of national income originating in the agricultural sector

L_a = the number of workers in the agricultural labor force

O_a = the physical output of agricultural products

P_a = the prices paid to agricultural producers

K_a = total costs involved in agricultural production *other* than labor (purchased supplies, depreciation, interest, etc.)

Agricultural income per worker (Y_a/L_a) is taken as the dependent variable because it alone has become the major policy target in recent years and certainly received greatest emphasis in the common agricultural agreement.

The agricultural production function is represented as follows:

$$(2) O_a = f_1(L_a, H_a, K_a, T_a)$$

Where H_a = number of hectares of land in cultivation and

T_a = the level of technical knowledge of agricultural methods among producers

The input variables are determined in various ways.

L_a is determined solely by employment opportunities *outside* of agriculture and by special governmental policies directed to the mobility of the agricultural population. Thus it is assumed that within the range of variation considered likely, changes in agricultural income per worker will not affect the agricultural labor force significantly. T_a is also determined exogenously as a function of time and governmental policy.

Given L_a and T_a , K_a is determined by

$$(3) \frac{K_a}{O_a} = f_2(P_a, P_k)$$

where P_k = the prices paid by agricultural producers for inputs into production other than labor.

and H_a by

$$(4) H_a = f_3(P_a, G_a)$$

where G_a represents governmental policy with respect to land usage.

The model operates subject to the following constraint:

$$(5) O_a \cong C_a - M_a$$

where C_a = total consumption of agricultural products

and M_a = Net imports of agricultural products (imports minus exports).

This constraint implies that total availabilities of agricultural goods ($O_a + M_a$) must be consumed and for other than small changes, it is assumed that continuous stockpiling of agricultural products will not be allowed to occur.

Since the target of agricultural policy is always denominated by the time rate of change of income rather than its level, the analysis is put into this form by taking the total derivative of equation (1) with respect to time (the levels of the variables drop out of the derivative by choosing appropriate unit values of the indices, i.e., $P_a=2$, $O_a=1$, $L_a=1$, $K_a=1$).

$$(6) \frac{d}{dt} (Y_a/L_a) = \frac{d}{dt} O_a + \frac{d}{dt} P_a - \frac{d}{dt} K_a - \frac{d}{dt} L_a$$

OPERATION OF THE MODEL

The political economy aspect of the estimating procedure is seen in the operation of the model. The analysis begins with the taking of a rate of growth of per capita income for economy as a whole and setting this rate as the target value for the growth of income in agriculture, $d/dt(Y_a/L_a)$. The three variables that are exogenously determined can be stipulated, i.e., the change in the agricultural labor force ($d/dt L_a$) and the change in the prices of farm machinery and fertilizers, etc. ($d/dt P_k$) which come from the operation of the economy in general and the change in technical knowledge ($d/dt T_a$) which is taken from the passage of time alone. The next step involves assuming a value for the policy instrument variable, agricultural prices ($d/dt P_a$), and also assuming changes, if any, in land use policies. Given the values of $d/dt P_a$, $d/dt P_k$ and $d/dt G_a$, from equations (3) and (4), $d/dt K_a$ and $d/dt H_a$ can be estimated. This

completes the determination of the input variables into the production function, equation (2), and therefore $d/dt O_a$ changes in production, can be estimated. With the estimation of changes in output, all of the variables of equation (6) determining changes in agricultural income are available. The summation called for in (6) can be done and the estimated change in agricultural income can be compared with its target value. If the estimated change in income differs from its target value, then consistency can be brought about by changing the target or adopting another value for the instrument variable, agricultural prices. After reaching a consistent estimate of equation (6), the use of the constraint equation (5) will allow one to get an estimate of imports. To get to the imports supplied by the United States, total imports must be divided by sources of origin.

ESTIMATIONS ASSUMING NO COMMON MARKET

The job of estimating what the agricultural situation would be like in the absence of a Common Market is relatively easy because the separate variables have already been estimated in previous research

efforts. Making a projection only involves bringing together the estimates of the variables from the several sources and drawing implications from them. The EEC has made projections of per capita income growth for the whole economy of the member countries for the period to 1965 (4). Under "pessimistic" assumption, the average annual growth rate of income per capita is estimated to be 2.6 percent. Under "average" assumptions, this rate of growth would be 3.3 percent and with "optimistic" assumptions, a rate of growth of 3.9 percent is envisioned. If one looks at the target growth of national income agreed to by the members of the OECD of 50 percent in 10 years, this works out to a per capita growth rate of 3.5 percent for the EEC countries given their expected rate of growth of population of 0.75 percent. Considering these estimates, which are fairly modest considering the recent experience of these countries, a target growth rate in agriculture of 3.3 percent was selected. This corresponds to the average assumptions of the EEC estimate and slightly below the OECD target. Table 5 summarizes the estimating procedure beginning with the target growth rate.

Estimates of the entire production function to the year 1970 have been made by John Coppock under the assumption that agricultural prices would not change (1). He estimated the inputs into the production function separately and projected an output growth figure on the basis of them. With continued growth in industry, the agricultural labor forces is expected to decline at a rate of 1.2 percent per year. This figure is less than the average rates of net emigration out of agriculture in the postwar period as it reflects the emptying of the pool of agricultural workers not firmly committed to the land (mainly East German refugees), and because of the rather elderly age distribution of remaining farmers which tends to reduce their mobility. Purchased supplies by agriculture ($d/dt K_a$) are expected to rise

O_a

more than proportionally with output at a 0.4-percent differential rate. Changes in the amount of land in cultivation overall are expected to be slight and the rate of growth of technology is expected to continue at about previous levels. These changes in inputs yield an estimate of an annual rate of growth of gross agricultural output of 1.5 percent.

TABLE 5.—*Estimates of average annual changes in agricultural income per capita assuming no Common Market*

[In percent]			
Cause	Target	Case I	Case II
Change in output ($d/dt O_a$).....	-----	1.5	1.8 to 2.0
Change in agricultural prices ($d/dt P_a$).....	-----	0	.5
Change in purchased supplies ($-d/dt K_a/O_a$).....	-----	-.4	-.4
Change in agricultural labor force ($-d/dt L_a$).....	-----	1.2	1.2
Change in agricultural income ($d/dt Y_a/L_a$).....	3.3	2.3	-3.1 to 3.3

The implications of Coppock's estimates are seen in table 5 under case I. With his values, the estimated annual growth of income per capita in agriculture is only 2.3 percent, almost one-third below the target rate. To resolve this inconsistency, one could reduce the target or postulate changes in governmental policies affecting agricul-

tural incomes. The first alternative, lowering the target substantially below average gains in the economy, implies such a relative decline in the welfare of the agricultural populations that the avowed governmental promise of income parity could not be kept. Postwar experience in general and the French experience with their farmer revolt in the summer of 1961, in particular, indicates that all the political power of the agricultural population would be brought to bear to make sure that this would not be the case. It is unlikely that the governments could hold out against such pressure.

The other alternative of instituting governmental policies aimed at increasing agricultural incomes up to the target value seems much more likely. This could be done in a direct fashion as in Great Britain through income supplement payments to farmers. The deficiency payments mechanism, however, has been rejected by continental European countries a number of times because of the large cash disbursements required and seems unlikely of adoption. Nor does the Swedish system of acting directly on productivity through land rationalization and labor mobility measures have any greater attraction for these countries. What would likely happen is that support prices on agricultural products would be raised to make up the deficit. The possible consequences of price increases are shown in table 5 as case II.

If prices were to go up by 0.5 percent per year, farmers would be induced to cultivate their crops more intensely and yield an additional increase in output of 0.3 to 0.5 percent, giving an overall increase of 1.8 to 2 percent per year.⁵ By assumption, this change would not effect emigration out of agriculture nor would the relationship between purchased supplies to output be affected. The net result of the increase in agricultural prices through the increase in output and as a result of the price increase itself would be an advancement of the growth of agricultural incomes to a range of 3.1 to 3.3 percent. This would presumably be close enough to the income parity goal so as to withstand further political pressure.

IMPLICATIONS OF CASE II FOR AGRICULTURAL IMPORTS

The estimated increase in gross agricultural output of 1.8 to 2 percent per year could go into increased consumption via population growth, increased consumption via higher per capita usage and could lead to decreased net imports as seen in equation (5). The EEC estimates that population will grow in the member countries at a rate of 0.75 percent per year means that population increases could absorb only about one-third the increase in output. (4) Estimates of increases in consumption per head differ somewhat depending on the source. The Economist Intelligence Unit estimates an increase in per capital consumption in the EEC of 0.75 percent per year in quantity and a much larger figure on a value basis. Estimates by the EEC indicate a somewhat lower figure. Total caloric intake per capita is estimated to grow at a 0.4-percent rate. This is, of course, consistent with a larger growth of food consumption as meat, fruit, and some vegetables are substituted for bread grains and potatoes. On the other hand, these low-calorie foods are the most sensitive to price

⁵ This implies an agricultural supply function with an elasticity coefficient with respect to price of close to 1. European postwar data indicate this to be a reasonable estimate.

increases and if there was a general relative inflation of agricultural prices, the anticipated shift in the structure of food consumption might well be slowed down. A growth rate per capita of 0.75 percent per year of the quantity of food products consumed seems appropriate.

If one adds together expected population growth (0.75 percent) and expected increases in per capita consumption (0.75 percent), the sum still falls short of expected increases in output. The remainder would have to be absorbed through declines in net imports. This implies that under the first assumption (no EEC), these countries would continue the trend toward self-sufficiency in agricultural products that has been present since the war.

With respect to international trade, price trends of agricultural products within the countries would be rising while prices of these same goods on international markets will probably be moving in the opposite direction. Barring another Korean-type conflict, the recent tendency for weakness of commodity prices will likely continue as increases in production in most countries outside the Communist bloc outstrip increases in demand. In order to protect a domestic price level substantially above world prices, trade barriers would have to become progressively more restrictive. It is instructive to note that Italy has reimposed a quota system for butter imports starting in 1962 because the previous tariff arrangement was insufficient to maintain the desired level of domestic protection.

There is a limit to how far increased quantities of domestic production can replace imports as trade restrictions are tightened and that is the point of self-sufficiency. With a few exceptions it is unlikely that, if these countries were acting independently, they would support domestic production past the point where the only means of disposal would be subsidized exports. As already noted, world prices will probably be declining over time requiring a growing subsidy to compete on world markets. While the real economic cost of inefficient self-sufficiency is very great, this cost is borne automatically by the consumer without involving the governmental budgetary process. Subsidized exports, however, would require substantial cash disbursements by the respective treasuries and therefore higher taxes. This very likely would be the point where the political majority could overcome the well-organized minority interest. Policy changes would be called for and would lead to production controls or other methods to limit output. Output limitations, however, would come much too late for the interests of agricultural exporting nations who had already lost their markets.

ESTIMATES WITH COMMON MARKET: SHORT RUN

Two estimates are made for the agricultural situation in the EEC, given their agricultural agreement. One is for the short run and another for the long run. The distinction between short and long run is essentially tied to the existence or absence of a one-price system within the community. The shortrun analysis will apply as long as there is not a one-price system. Institutionally the difference is tied to maintenance of the variable levy schema on intracommunity trade which gives preference to domestic production in the member coun-

tries as compared to supplies from other member countries. The economic significance of the intracommunity variable levies is that this marketing system prevents structural improvements from taking place since the force of competition will not be felt. Only minor gains can be made in rationalizing crop pattern or in improving the mobility of workers out of agriculture as long as the pricing system motivates the continuance of existing patterns. The expected date of the coming into force of the one-price system is 1970 and unless delayed, the shortrun analysis would apply until then.

The implications of the EEC agricultural policy for the short run in some respects do not differ markedly from the situation that would exist if there was no EEC at all. Since each country can follow an independent price policy, subject only to weak boundary limitations, one might think that pricing policy might not differ radically from the preexisting conditions. There is a significant change, however, in the operation of the constraint, equation (5). It is assumed that with no EEC, a policy of stimulating production through high and rising prices would be changed at the point of self-sufficiency in a product for each country separately. Under the terms of the agricultural agreement, if surpluses appear on the horizon for a product in one member country, that need not be a deterrent to continued increases in production as long as another member country is importing the product from an outside source. The effective constraint to the continuation of a policy of spurring agricultural surpluses would now be the point of self-sufficiency of the community as a whole and the constraint itself has been weakened by the provisions for jointly financed subsidies for exports.

Given the great resistance already in evidence to the reduction of any agricultural price anywhere in the EEC and the weakening of the constraint on increases in agricultural production, the movement to a one-price system is likely to involve raising lower prices to the highest level in the community. Convergence to a single price in this manner would lead to the increasing of average prices within the EEC by about 1.0 percent per year. The implications of this type of pricing policy is seen in table 6:

TABLE 6.—*Estimates of average annual change in agricultural incomes with EEC policy*

Cause	Target	Short run	Long run
	Percent	Percent	Percent
Change in output ($d/dt O_a$).....		2.0-2.5	1.0-1.5
Change in agricultural prices ($d/dt P_a$).....		1.0	0
Change in purchased supplies ($-d/dt K_a/O_a$).....		- .5	- .3
Change in agricultural labor force ($-d/dt L_a$).....		1.2	2.0-2.5
Change in agricultural income, $d/dt (Y_a/L_a)$	3.3	3.7-4.2	2.7-3.7

It is assumed again that the change in the pricing policy will not affect net emigration out of agriculture as no new policy aimed toward labor force mobility is provided for. Since the common agricultural agreement would not necessarily increase expenditures for agricultural productivity beyond what is already being done by the member governments, the growth of technology is expected to continue on its

time trend. Higher prices might well stimulate an increase in purchased supplies in relation to changes in output and a small differential increase is estimated. There might also be some conversion of temporary grasslands back to grain production, but probably not of major proportions. The effect of the changes in inputs would be to increase the rate of growth of agricultural output to 2.0 or 2.5 percent per year. The net result of the increases in output, prices, and input of purchased supplies would be a growth of agricultural income per capita of 3.7 to 4.2 percent per year. This compares very favorably with the target rate (which acts only as a minimum admissible rate) and probably would not be too far below the growth in industrial wage rates. It appears, therefore, that the average farmer in the community will make out quite well in the short run under the new policy.

The implications for agricultural imports from nonmember countries are quite clear. There is no reason to believe that total consumption of agricultural products will go up as a result of the agricultural agreement, so the increase in production will be at the expense of imports from outsiders. The existence of the EEC, therefore, promises to be even more disruptive to the interests of agricultural exporting nations outside the community than the sum of the protectionist policies previously followed. Self-sufficiency for the EEC as a whole will be approached at a faster rate with a growing divergence in price levels which, in turn, will call for ever more restrictive trade policies.

ESTIMATES WITH COMMON MARKET: LONG RUN

In the long run with a one-price system, the agricultural sectors of the member countries would no longer be isolated from one another and the allocation of resources within agriculture would be improved. To insure that the unified price had the same effect on all agricultural producers, the member governments would also have to equalize all forms of subsidies to agriculture. Under a unified market system, the second half of the Mansholt plan for agriculture, structural policy, could have a larger role in implementing policy goals (12).

The aim of structural policy would be to go to the core of the longer run adjustments needed in European agriculture. A primary aim of the policy would be to increase productivity per man in agriculture and thereby raise both the income level and the social status of the farm population. A number of avenues of attack are possible and have been contemplated. A great deal needs to be done to bring about more efficient sized units of agricultural production. This involves increasing the size of individual holdings and combining them if they are scattered. Use of financial and legal institutions would be the major instruments in this area. In addition, increased efforts in scientific research are possible plus measures to encourage rational cropping patterns using existing technology. Finally, continued improvements in the transportation networks between producing and consuming areas are needed.

The second major purpose of structural policy would be to encourage the movement of surplus labor out of agriculture. In addition to raising the standard of living of those actually leaving, the remaining farm population would also gain. To serve this end many approaches are possible. A direct attack on the problem can be made through encouragement of regional development of industrial plants near to the centers of overcrowded agriculture. A second basic approach would be to improve the educational facilities in rural areas to help prepare the population for making the adjustment to more productive work.

The essence of the advantage of having a structural policy would be to give greater flexibility to policymakers in reaching the goal of maintaining agricultural versus nonagricultural income parity. Since the agricultural minorities will likely have less political power in the Community than the sum of this power in the member states, a policy dictated by the narrow interests of the agriculturalists need no longer prevail. The nonagricultural majority might not stand for continued rising food prices and foregone income growth if a more efficient solution to the farm problem was available. It is conceivable that rising prices would be rejected as the way to bring about the income parity goal and more reliance put on increasing productivity per worker and reducing the numbers of workers committed to agriculture. Increasing productivity and substantial improvements in income per worker are consistent with constant or even declining total output. The experience of the United States is most instructive in this regard.

Tentative estimates of the longrun implications of substituting structural policy for price increases is shown in table 6. Net emigration out of agriculture would be increased and could reach a 2 to 2.5 percent rate per year. Purchased supplies in relation to output might well fall as only the more fertile acres requiring less fertilizer per unit of output would be cultivated. The amount of land in use might be modestly reduced. The increase in technology and efficiency would certainly be increased above recent time trends sufficient to overcome the declines in other inputs yielding increases in output in the range of 1 to 1.5 percent per year.⁶ The net result on the growth of agricultural income would be an increase of 2.7 to 3.7 percent per year which is acceptable if the mean of the range was approached. If increases in consumption continued at its previous rate or even increased with constant prices, nonmember countries would benefit as imports would maintain their share of the market then existing or might increase it if the lower output growth figure came about.

THE U.S. SHARE OF THE PROSPECTIVE EEC MARKET

Only the shortrun implications of the agricultural agreement for exports from the United States will be examined in detail. Within recent years, 80 percent of U.S. exports of agricultural products to

⁶ This approximates the 1953-56 European experience.

the EEC countries has been concentrated into six commodity groups: wheat and wheat flour, coarse grains, meat, fats and oils (except butter), raw tobacco, and cotton. The future trends in American exports will be estimated by concentrating on these products. It is unlikely that the United States would be able to broaden its market in the face of an overall decline in EEC agricultural imports. These products fall into both the temperate and tropical zone classifications involving somewhat different problems. Other products in which the United States has a substantial interest but which have not been studied in detail include rice, fruits (mainly citrus), hides, and dried pulses.

TEMPERATE ZONE PRODUCTS

WHEAT

The future market for imported grains in Europe is of vital interest for the world grain trade and particularly for the United States and Commonwealth producers. As is shown in table 7, the EEC within recent years has moved toward a more self-sufficient position in wheat. This has come about primarily as a result of substantial increases in output. The most notable feature of this increase has been sharply rising trends in yields shared by all the member countries. Total land devoted to wheat has declined slightly as increases in West Germany have been more than counterbalanced by declines in France and Italy. Consumption of wheat, while increasing, has not kept pace with output. Direct wheat consumption per capita has actually declined and the loss has just been balanced by increases in population. Practically all of the net increase in grain consumption has been for animal feeding. This has meant that net import requirements have been declining quite rapidly during the decade of the fifties, from about 5.5 million tons per year to around 2 million tons.

Intracommunity trade has been growing and now represents 20 percent of gross imports. The other major suppliers as seen in table 8 are Canada (35 percent), the United States (18 percent), Argentina (9 percent), and the U.S.S.R. (7 percent). The U.S. share of total imports has also declined receding from levels of 25 percent as recently as 1955-56.

TABLE 7.—*Production, trade, and availabilities of selected commodities in the European Economic Community*

[Quantity in thousands of metric tons]

	Average, 1952-53, 1955-56	Average, 1956-57, 1959-60	1959-60	Estimate, 1962 USDA ¹	Estimate, 1966 USDA ¹
Wheat:					
Production.....	22, 195	23, 415	25, 869	26, 225	28, 051
Imports.....	5, 505	5, 305	4, 422	1, 433	414
Exports.....	1, 846	2, 615	2, 449		
Availabilities.....	25, 854	26, 105	27, 842	27, 658	28, 465
Production as percent of availabilities.....	85. 8	89. 5	92. 9	94. 8	98. 5
Coarse grains:					
Production.....	17, 636	21, 591	21, 874	28, 505	31, 884
Imports.....	5, 074	7, 589	8, 667	8, 296	9, 553
Exports.....	458	1, 199	805		
Availabilities.....	22, 252	28, 281	29, 736	36, 801	41, 437
Production as percent of availabilities.....	79	76	74	77	77
Total meat:					
Production.....	6, 832	7, 862	8, 362	8, 935	10, 010
Imports.....	338	696	760	311	252
Exports.....	237	317	363		
Availabilities.....	6, 963	8, 241	8, 759	9, 246	10, 262
Production as percent of availabilities.....	99	95	95	97	98
Fats and oils (except butter):					
Production.....	1, 154	1, 306	1, 335	1, 574	1, 681
Imports.....	2, 069	2, 365	2, 392	2, 021	2, 029
Exports.....	381	485	516		
Availabilities.....	2, 842	3, 186	3, 211	3, 595	3, 710
Production as percent of availabilities.....	41	41	42	44	45
Raw tobacco:					
Production.....	153	160	165	131	139
Imports.....	156	172	186	242	277
Exports.....	18	18	18		
Availabilities.....	291	314	333	373	416
Production as percent of availabilities.....	53	51	50	35	33
Cotton:					
Production.....	10	9	12	10	11
Imports.....	861	962	1, 054	1, 065	1, 144
Exports.....					
Availabilities.....	871	971	1, 066	1, 075	1, 155
Production as percent of availabilities.....	1. 1	. 9	1. 1	. 9	1

¹ Estimated before the common agricultural agreement was formulated.

Sources: OEEC, "Agriculture," Paris, 1961. OEEC, "Agriculture and Food Statistics," Paris, 1959. U. N., FAO Monthly Bulletin of Agricultural Economics and Statistics, vol. 10, No. 10, October 1961; vol. 10, No. 9, September 1961. U. S. Department of Agriculture, "The World Food Budget, 1962 and 1961, Western Europe," October 1961.

TABLE 8.—Imports of agricultural products by the European Economic Community by source

[1958-60 average]

	Total imports (millions of dollars)	Wheat and wheat flour (thousands of metric tons)	Coarse grains (thousands of metric tons)	Meat ¹ (thousands of metric tons)	Fats and oils ¹ (except butter) (thousands of metric tons)	Raw ¹ tobacco (thousands of metric tons)	Raw cotton (thousands of metric tons)
Total imports.....	\$6,155	4,455	8,842	716	2,226	180	971
	In percent						
Source:							
Intra EEC.....	18.5	18.1	4.5	34.7	5.2	5.0	9.9
Associated territories.....	19.7	2.0	1.2	.5	24.0	25.8	37.0
United States.....	16.2	18.5	41.1	9.0	27.1	38.8	5.5
Turkey.....						7.9	
Denmark.....				22.6			
Canada.....		34.5				2.4	
Argentina.....		8.7	26.1	16.0			
U.S.S.R.....		7.1					3.4
Others ²	45.6	11.0	27.1	17.2	43.7	20.1	44.2

¹ 1957-59.² Of which other Europe, 11.7 percent.

Sources: OEEC, "Agriculture," Paris, 1961. OEEC, "Agriculture and Food Statistics," Paris, 1959. U.N., FAO, "Monthly Bulletin of Agricultural Economics and Statistics," vol. 10, No. 10, October 1961; vol. 10, No. 9, September 1961. U.S. Department of Agriculture, "The World Food Budget, 1962 and 1961, Western Europe," October 1961.

The near-term prospects for wheat imports into the Six from the United States are very poor and the complete loss of the market must be contemplated. As seen in table 7, projections of EEC production and consumption needs by the U.S. Department of Agriculture and confirmed by the EEC study indicate full self-sufficiency is likely by 1966-67. This would not mean that all wheat imports from third countries would cease, as the EEC will continue to be short of good milling quality hard wheat and high-protein wheat. This trade may continue at a level of 1 to 1½ million tons per year. It is likely, however, Canada will continue to have a competitive edge in this market as the United States consumes most of its high-quality wheat. Imports will be matched by exports of softer varieties of wheat into a market that is already glutted. This wheat will probably move only with substantial subsidies or it may be necessary to give it away to underdeveloped countries.

The possible joining of the United Kingdom and the EEC would complicate the wheat picture substantially. The United Kingdom is a very large net importer of wheat at a price much below the EEC level. If the higher EEC price was adopted in Britain, production might be further stimulated both on the Continent and in the United Kingdom. The major losers of the British market would be the large Commonwealth suppliers, mainly Canada and Australia. If the accession of the United Kingdom to the Rome Treaty involved special provisions to safeguard all or part of the Commonwealth market in the United Kingdom, then the smaller producers, essentially the United States (10 percent of United Kingdom market) and Argentina would be the major losers.

Over a longer horizon, the major adjustments called for in wheat production in Europe can only be furthered by an aggressive structural policy. General contraction of wheat cultivation and conversion to higher quality wheat is required. The better wheat varieties in general give much lower yields per hectare, so substantial inducement is needed to motivate the shift. Some small price-support differentials have been tried in Germany with no measurable success to date. Such a shift might cut into the direct exports of hard wheat to Europe but would more than be compensated for through lessening of the world glut in the softer varieties.

COARSE GRAINS

Coarse grains include all of the grain crops that are normally used for animal feed; oats, barley, corn (maize), sorghum, and also rye used for human consumption. The production of coarse grains within the Six has expanded greatly in the postwar period, but at a slightly lower rate than wheat. Barley and maize have yielded the largest increases while rye has leveled off and oats have declined within recent years. Consumption of coarse grains, unlike wheat, has increased at a faster pace than production. The increase has gone exclusively into the feeding of meat-producing animals as human consumption has declined with rising incomes and the population of farm draft animals has also declined. This has meant growing demand for imported feed grains which rose during the decade of the fifties from around 4 million tons per year to around 8 million tons of net imports. This has occurred despite the fact that France became self-sufficient and is now a net exporter. The EEC together accounts for 40 percent of world trade in coarse grains. The United States is the major supplying country with about 50 percent of the total market and Argentina is next with 25 percent of the market.

The preagreement estimates of trends in production and consumption of coarse grains in the EEC by the U.S. Department of Agriculture are also shown in table 7. While production was expected to increase quite rapidly, estimated consumption looked as if it would keep pace, necessitating increases in imports. These estimates now appear too optimistic (for third countries) for two major reasons; productivity gains are not sufficiently accounted for and the operations of the agricultural agreement itself are not weighted. The prospects for improving the cultivation of coarse grains are very great. If the price of barley goes up as is anticipated, the conversion of lands from oats and rye (possibly also sugarbeets) into barley would be expedited and have the effect of raising total output. In addition, some lands that could grow maize are not being used and some that are, have not yet been converted to high-yielding hybrid varieties. Higher maize prices will stimulate this conversion.

The major loss of the import market, however, will be to other ways of feeding animals. The common agricultural policy will stimulate excess production of soft wheat and potatoes which will be subsidized so that they can compete as animal feeds. Also oil seed cake, a very desirable animal feed, will be produced in much larger quantities as the new tariff system tends to promote European oil seed crushing giving off the cake as a byproduct. Probably the most important development, however, will be the improvement in grasslands

management. Technical methods are now known and are constantly being improved that could revolutionize the feeding of animals. This development is comparable, in effect, to the introduction of hybrid corn. If grassland management on the Continent were brought up to existing standards in the United Kingdom, feed grain needs would be cut drastically. It must be remembered that Northern Europe has almost an ideal climate for grass crops and the only limitations in the past have been ignorance and the land tenure system. Neither of these constraints need be permanent.

With these possible developments in mind, the future of the EEC as a market for imported feed grains also does not seem promising. While 100 percent self-sufficiency within the EEC is not foreseen in the near future, a much higher level of self-sufficiency is anticipated. This suggests that U.S. exports would level off immediately and by the end of the transition period be much below current levels. The longer run prospects will depend upon changes in technology previously mentioned and in part on wheat policy. If wheat prices are reduced relatively to coarse grains, then a shift toward more self-sufficiency in coarse grains might occur while the opposite would be true of wheat. The accession of the United Kingdom would not change the situation as long as the EEC remains a net importing area as the United States has a commanding position in both markets.

MEAT

The EEC in the main is already self-sufficient in the major meat products as net exports of ham and pig meat counterbalance imports of beef and veal. The United States has an interest in EEC imports of some lesser important meat products which together represents a substantial market. These are meat specialty items (mainly beef and pork livers and tongue) and poultry (both chickens and turkeys). The rate of growth of our poultry exports within recent years has been phenomenal, adding greater interest to this product.

Projections of meat consumption reflecting growth in national income indicate substantial increases are to be expected. Of the several meat products, poultry leads in percentage increases expected which should help our future exports. On the other hand, the revolution in poultry production that has occurred in the United States has not yet reached Europe. The increases in output that are made possible with a technology in which the United States leads but on which it has no monopoly makes projections in this area most hazardous. There already has begun a movement toward U.S. methods in Switzerland and it is clear that the Netherlands and Denmark, traditional exporters, will not be far behind. While the adoption of the new techniques takes time to function properly, maybe as long as 6 or 7 years, it would be foolhardy in the extreme to believe that the United States has a permanent market in Europe regardless of increases in consumption. Specialty meats also face an insecure market. These products come as joint outputs from beef and hog slaughterings. In the past there have been shortages in Europe, but as beef production increases, these products will become more available and the future will depend on taste preferences. While in the very short run, the value of U.S. exports of meat may increase to the EEC, the eventual loss of the entire market must be anticipated.

TROPICAL ZONE PRODUCTS

COTTON

The future of third country exports of tropical zone products are not affected by domestic production within the EEC and are, in general, not subject to variable import levies. They are threatened, however, by the preferential position in the market given the countries associated to the EEC by the Rome Treaty, mainly former French dependencies in Africa and Surinam.⁷ The provisions of the treaty are subject to an appended implementing convention having a limited life and ending on January 1, 1963. The provision is being renegotiated and while major revisions are not anticipated, they are certainly possible.

Of all the major commodities exported by the United States to the EEC, cotton will be least affected. The common external tariff rate is zero and there is no member country that produces it in quantity. Cotton is grown in certain associated territories in Africa and also in Greece but they jointly are not major suppliers. The picture would not be altered even if Turkey were to become associated. While expansion of production of cotton is possible in the associated territories there appears to be technical limitations that will hold this to fairly small absolute amounts. Increases in associated territory production should not be overly disruptive as increases in consumption are also anticipated in the EEC (table 7).

The United States could lose much of its market in the EEC if our cotton became noncompetitive with other third country sources, but this would not be the fault of the Common Market. It might happen that if the EEC liberalized its restrictions on the importation of cotton textiles, that imports of finished goods would expand greatly and reduce import demand for raw cotton. Under these circumstances, however, sales lost to the EEC would likely be made up by sales elsewhere in the world. It is also possible that cotton could be displaced in final usage by other fibers; however, the main onslaught of synthetics seems to have run its course and cotton should be able to hold its own in the future as long as raw cotton prices don't rise. In general, we can expect the United States to hold its share of the market and to increase its exports as consumption grows in the EEC.

FATS AND OILS (EXCEPT BUTTER)

Fats and oils are made up of two varieties; edible and inedible. Domestic production within the EEC is made up almost exclusively of edible fats primarily of animal origin although some olive oil is produced. The growth in the production of animal fat has paralleled the growth in meat output making the EEC more self-sufficient in this category and thereby replacing what was once a thriving market for American lard exports. In final use, European butter production also competes with edible fats and oils so trends in this product must be recognized. Consumption of fats and oils has risen con-

⁷ This aspect of the Rome Treaty has been seriously challenged as inconsistent with the GATT requirement of most-favored-nations treatment since this provision is not covered under the general exclusion for customs unions.

siderably absorbing the increase in output and moderating the slight movement toward overall self-sufficiency.

Future increases in production of animal fats promise to be substantial in the EEC because of the expansion of meat production anticipated. Also butter production will increase because of the apparent inability of consumption of milk in a liquid form to keep pace with increases in output. Consumption per capita of fats and oils, however, will probably begin to level off as Europe enters a new era of calory conscious affluence. This will cause a continuation of the tendency toward self-sufficiency albeit at a very slow rate.

There is little doubt but that the EEC will remain a deficit area in fats and oils for the foreseeable future. While no variable levy system is contemplated to control imports, there is a common external tariff that appears sufficient to protect the processing industry. The common external tariff on processed fats and oils plus a zero tariff rate on raw oil seeds will motivate the making up of the deficit in availabilities through importing oil seed rather than the finished product. The United States is the largest single supplier of oils and oil seeds to the EEC: however, unlike cotton, the associated territories already supply a major share. The African territories will not have a tariff preference in the supplying of oil seeds to the EEC, but ownership of African production is generally in the hands of European users of oil seed and they will certainly use their own sources of raw material before buying from outsiders. The investing of funds into commercial agriculture in Africa will very likely be an important part of their general economic development. Since this area has already shown an ability to produce oil seeds, further growth of this crop must be contemplated, although there does not seem to be the capacity in Africa to provide for the entire market.

In the short run, the value of U.S. exports to the EEC of fats and oils will likely decline moderately as finished oil exports are replaced by less valuable oil seeds and African sources of production replace the American product.

RAW TOBACCO

The market for U.S. tobacco in the EEC seems to be fairly secure. The United States sells the lighter leaf, Flue-cured varieties of tobacco that are highly prized for cigarettes and they usually command a premium in the market. The production of tobacco in the EEC and its oversea associates is of the dark leaf, aromatic tobacco species which is much less desirable for cigarettes. Furthermore, conditions of climate and soil within very narrow limits determine the variety of tobacco that can be grown in any particular area. Even if the amount of tobacco grown expanded tremendously in Africa, this would not constitute a direct threat to American producers. Future demand for cigarettes in the EEC will likely expand with income gains and population growth, so some growth in exports of American tobacco should be expected.

There are some unfavorable factors which cloud the future prospects. The common external tariff set on tobacco by the EEC is very high at about 24 percent ad valorem, which penalizes noncommunity sources greatly. At a large enough price differential, smokers can be induced to accept blends which minimize U.S. tobacco leaf. The

United States has pressed vigorously for the reduction in this rate and there is some hope that future reductions will be forthcoming. The picture is also clouded somewhat if Britain should join the EEC and take the Central African Federation with her in an associated basis (Northern and Southern Rhodesia and Nyasaland). This area of Africa can grow the lighter, Virginia-type leaf. The threat to American suppliers would not be an immediate one, as Great Britain already absorbs most of the federation's output. However, with the prospect of a large protected market, substantial increases in production in the longer run are possible. These two unfavorable factors, however, are nothing more than fears surrounding an otherwise bright future.

CONCLUSIONS

It is fairly clear that the prospects for future agricultural exports to the six countries of the European Economic Community by the United States are not very encouraging. A movement toward self-sufficiency for a wide range of crops of a temperate nature with higher internal prices and greater trade barriers to the outside seems likely. While this movement cannot be completely attributed to the Common Market, the agricultural agreement has certainly speeded the tendency and will carry it to greater extremes. The chances are that within the next 8 years the United States will lose most of its sales of wheat, poultry, and other meats, and some smaller crops like dried pulses, citrus fruit, and hides. Declines in sales should be expected in coarse grains and oil seeds. Gains seem likely in our sales of cotton and tobacco and possibly also rice. In the aggregate, the loss of export value might well reach 30 percent of current levels.

Even with this overall pessimistic expectation, the United States will probably fare better than most third country exporters of agricultural products because of the structure of our comparative advantage. The U.S. exports, mainly coarse grains rather than wheat, poultry rather than beef or lamb, and oil seeds, cotton, and tobacco rather than cocoa, coffee, and sugar. The prospects of other countries whose product structure is concentrated in the latter categories will be in much worse position than the United States.

The aggregate of unfortunate consequences of the common agricultural policy is greater than the sum of the losses of individual product markets. The agreement essentially removes the agricultural sector of the EEC from the resource allocating mechanism of world market forces. Furthermore, there is no method of bargaining for trade liberalization against a mechanism that insures an absolute level of protection. The cost of agricultural protectionism forthcoming will be shared by the member countries and by the rest of the world, part of which can ill afford it.

The real hope for rational economics in agricultural trade lies in the ability of the EEC in the longer run to recognize the real cost to themselves of agricultural protectionism. This end is conceivable, and maybe even likely, through vigorous structural policy but equally unlikely without it. Only the greater resources and the relative political isolation of the Community as a whole can bring sense out of the restrictions, subsidies, and general inefficiencies that currently mark European agriculture. In the longer run, one may also expect

that the undesirable features of the association of the African countries to the EEC will also be attacked. The only visible sign that improvement will actually come in the future is the knowledge that the old farmers of the EEC must some day retire. Unfortunately, a great deal of damage can be done to nonmember countries before that day arrives.

It must be remembered that agricultural policy within the EEC is not developed in a vacuum. If the United States moves toward price supports that tend to diverge from market equilibrium prices, we should hesitate to expect other countries to have greater insight or courage to move in the opposite direction. However, if the United States adopts an improvident agricultural policy, the rest of the world is generally insulated from the consequences because we are a net agricultural exporter willing to control production and absorb unexpected increases in output through stockpiling. The EEC, on the other hand, is a net importer and all policy changes both for good and bad are immediately passed on in part to other countries via trade effects. In their agricultural agreement, the EEC has reconciled the conflicting interests of member countries by sacrificing the interests of nonmember countries. Lack of concern with external consequences is a luxury belonging only to the small and the weak. The original members of the EEC jointly make up one of the largest markets for agricultural goods. If Britain should join, the EEC would become *the* largest market without a close second. Such size demands responsibility of action.

BIBLIOGRAPHY

1. Dewhurst, Coppock, Yates & Associates, "Europe's Needs and Resources," Twentieth Century Fund, New York, 1961.
2. Economist Intelligence Unit, "The Commonwealth and Europe," London, September 1960.
3. European Economic Community, "Treaty Establishing the European Economic Community," (Rome Treaty), Brussels, 1957.
4. European Economic Community, "Entwicklungstendenzen der Erzeugung und des Verbrauchs von Nahrungsmitteln in der EWG (1956-65)," Brussels, 1960.
5. European Economic Community, "An Agricultural Policy for Europe." Information Memo 300/62-E, January 23, 1962, Brussels.
6. European Economic Community, "Reglements, Decisions et Resolutions Concernant la Politique Agricole Commune Adoptes par le Conseil de la Communaute," January 24, 1962, Brussels.
7. Fischer, Lewis A., "Implications of European Integration for Canadian Agricultural Exports," Canadian Journal of Agricultural Economics, vol. IX, No. 1, 1961.
8. General Agreement on Tariffs and Trade, "The Possible Impact of the European Economic Community Upon World Trade," (Trade Intelligence Paper No. 6), Geneva, December 1957.
9. OEEC, "Agricultural and Food Statistics," Paris, 1959.
10. OEEC, "Agriculture," Paris, 1961.
11. Political and Economic Planning, "Agricultural Policies in Western Europe," Occasional Paper No. 3, May 1959, London.
12. Political and Economic Planning, "Proposals for a Common Agricultural Policy in EEC," Occasional Paper No. 5, February 1960, London.
13. Political and Economic Planning, "Trade Diversion in Western Europe," Occasional Paper No. 9, London, October 1960.
14. Political and Economic Planning, "Food Prices and the Common Market," Occasional Paper No. 13, London, May 1961.
15. Political and Economic Planning, "Agriculture, the Commonwealth and EEC," Occasional Paper No. 14, London, July 1961.

16. Richter, J. H., "Agricultural Policy in the European Common Market," *Journal of Farm Economics*, vol. XLIII, No. 3, August 1961.
17. U.N., ECLA, "Latin America's Trade With the Common Market Countries of Europe," *Economic Bulletin for Latin America*, vol. III, No. 1, March 1958.
18. U.N., FAO, *Monthly Bulletin of Agricultural Economics and Statistics*, vol. 7, April 1958; vol. 8, November 1959; vol. 9, November 1960; vol. 10, September 1961; vol. 10, October 1961.
19. U.S., Department of Agriculture, "The World Food Budget, 1962 and 1966, Western Europe," October 1961.
20. U.S. Department of Agriculture, "European Common Market Agricultural Proposals and Implications for U.S. Agriculture," *Foreign Agricultural Circular*, August 26, 1960.
21. U.S. Congress, Committee on Agriculture, "The 14th Semiannual Report on Activities of the Food-for-Peace Program Carried on Under Public Law 480, 83d Congress as Amended," August 1961.
22. U.S. Senate, Committee on Foreign Relations, "Agricultural Proposals in the European Economic Community," December 16, 1960.

COMPETITION IN THE EUROPEAN COMMON MARKET

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I. INTRODUCTION

"The European Economic Community," said its president, Walter Hallstein, in his Clayton lectures at Tufts University in April 1962, "is a political reality * * * now [it] is past the so-called point of no return." A less optimistic viewer, aware of the potentialities of the French political scene for serious disturbance in the relationship among the European Economic Community's members, may still be skeptical about the Community's permanence. To comment with great assurance on this very fundamental question requires an omniscience that obviously neither I, nor others who have given close study to the Community's development, possess.

Yet, any meaningful assessment of the Community's economic policies, and especially those policies which will be gradually formulated and implemented over the very long run, requires at the outset certain assumptions about the durability and future course of the Community itself. The Community's policies toward competition, for reasons which will be developed shortly, are among its long-range policies for which objectives in only very general terms have yet been set. Clear definitions of these objectives, and even more the creation of those institutions necessary to their attainment, will require considerable time. In view of (1) the unanticipated progress toward genuine economic and political union made by the Community in its now 5 years of existence; (2) the measurable economic benefits the union has brought to all its members; (3) the legal difficulties and prospective political and economic adversities in store for any single member state exercising recalcitrancy; and (4) the increasing number of applicants from other European nations for full or associate membership, it shall be assumed that the Common Market has not only become an economic and political fact of international life, but that it will continue to progress at a rate corresponding approximately to its actual rather than its slower treaty-established timetable.

The economic principle underlying the formation of the European Economic Community was set forth in a simple single phrase by Adam Smith in his "Wealth of Nations" (1776): "The division of labour is limited by the extent of the market." In economies having substantial private-enterprise sectors, institutional market limits traditionally arise from two sources: governments and private monopoly. The corresponding traditional public policies for dealing with them are trade policies for reducing the effect of barriers governments themselves have from time to time erected and antimonopoly policies.

The Rome Treaty establishing the European Economic Community (the EEC Treaty) provides for the dismantling of both public and private trade barriers, but the provisions for the two complementary policies are highly disparate in terms of specific substance and definiteness of schedule. On the one hand, the treaty sets forth a timetable

of reductions in tariffs and quantitative restrictions among member countries which, at the end of the 12-year transition period, calls for a complete elimination of public barriers to trade within the Community and the erection of a common external tariff. On the other hand, articles 85 and 86, which set forth the substantive "Rules Governing Competition," are cast in far less specific language. Article 85 prohibits certain interfirm agreements, concerted practices, and trade association activities that are likely to affect adversely trade among the member states or prevent, restrict, or distort the free play of competition within the Common Market. However, the prohibition may be declared inapplicable to such agreements, practices, and activities when they contribute to technical progress or improvement in the production or distribution of goods. Article 86 places a prohibition on one or more firms taking unfair advantage of their dominant position in the Common Market in ways that affect trade among the member states, but what constitutes a "dominant position" and "unfair" advantage, and what trade effects are in fact prohibited, are left undefined.

This obvious disparity in standards—the quantitative objectives in the area of public trade barriers and the conveniently vague objectives of policy toward private trade restraints—requires different methods of assessment of the two policies. By all measurable criteria, and largely because measurable criteria can be employed, the dismantling of public barriers to trade has progressed at a remarkable pace. The 10-percent tariff reduction on industrial goods that went into effect on July 1, 1962, brought internal tariffs down to 50 percent of those in force on January 1, 1957, a tariff level originally scheduled in the treaty for 1964. The 5-percent reduction of duties on an agreed list of farm products that also went into effect on July 1, 1962, brought the total reduction on these products to 35 percent. As originally scheduled in the treaty, only a 30-percent reduction would have been reached by the end of 1962. Progress in removing quantitative restrictions has been even more impressive; practically all such restrictions had been abolished by December 31, 1961—8 years ahead of the original schedule provided for in the treaty. Even the movement toward a common external tariff, when the second step takes place on July 1, 1964, is 2½ years ahead of schedule. By that date the gap between national and common external tariffs will have been reduced by 60 percent since the Rome treaty went into effect on January 1, 1958. Export duties have been completely abolished.

Similarly, the European Economic Community has taken significant steps to eliminate the trade-distorting and restrictive effects of state owned or controlled activities. On July 1, 1961, it banned discriminatory transportation rates based on the origin or destination of goods. Certain state monopolies—such as the French and Italian state tobacco monopolies—have been deprived of much of the protection they once possessed. And some corrective measures have been initiated against the trade-distorting effects of state aid, subsidies, and turnover taxes.

In contrast, the dismantling of private barriers to competitive resource allocation within the European Economic Community in terms of quantifiable measures of progress, has moved at a visibly slower pace. Formal action by the Community itself against private restraints and monopoly had to wait the issuance of general anticartel

rules by the Community's Council of Ministers for Applying Articles 85 and 86 of the Treaty. The first such regulation (Community Regulation No. 17) was not adopted until December 1961, and did not come into effect as a binding regulation until March 13, 1962.¹ There has therefore not yet developed a body of case law revealing how the Community's anticartel policies will apply in specific market situations.

This contrast in measurable progress in eliminating public and private barriers to competition is consistent with the observation made earlier that analysis of the Community's anticartel policies must recognize at the outset that these policies are very long range and will gradually take on concrete form as the Community further develops. In matters such as tariffs, quantitative restrictions, and government-owned enterprises, the member governments deal with themselves. The reduction of a tariff, or a state subsidy, merely requires the reversal of an action the state previously took. In short, the elimination of public barriers to competition is relatively easy simply because the public created them. Private cartels, on the other hand, have grown up in Europe not by the action of governments² but because governments did not act to prevent them. Hence, the removal of private trade restrictions requires not so much the reversal of a previous policy but rather the creation of a new one.

In Europe the new policy objective of creating reasonably competitive enterprise makes a sharp break with deeply embedded traditions. The entire industrial maturation of England and the Continent occurred in an atmosphere of permissive or compulsory cartels.³ This means that the resource allocative patterns existing at the time the Rome Treaty became effective presumably did not reflect equilibrating adjustments to the competitive market forces of supply and demand, but rather states of market equilibriums as determined by cartel administrative authorities. Since there is a strong general presumption that reasonably effective competition and cartelization result in quite different patterns of resource allocation, it follows that the adjustment from the former to the latter is of substantial proportions. While this fact may very well explain why the European Economic Community has necessarily proceeded rather cautiously in implementing treaty articles 85 and 86, it also argues strongly that, once effectively implemented, they will produce significant changes in the economy of Western Europe. These potential changes have important implications for other nations, especially the United States. The primary concerns of this paper are (1) the reasonably predictable effects a shift from cartelization to effective competition would have on the European Economic Community and other nations and (2) the extent to which this shift has already taken place, or is likely to do so in the transition period.

II. ECONOMIC EFFECTS OF A REDUCTION IN TRADE BARRIERS AND RESTRICTIVE PRACTICES

The expected economic effects of a shift from monopolistic to competitive organization derivable from static welfare models of economic theory, while generally well-known, provided an appropriate

¹ Règlement No. 17, Journal Officiel Des Communautés Europeennes, Feb. 21, 1962.

² Germany has from time to time operated under compulsory cartel legislation.

³ See cartel policies of individual European countries, *infra*.

starting point for the analysis that follows. In an economy containing both competitive and monopolistic industries, assuming that neither consumer preferences nor the technological conditions of production are affected by the form of industrial organization,⁴ resource employment in monopolistic industries tends to be restricted so that the value of the marginal product of productive factors exceeds their respective marginal costs. The difference between the factor quantities actually employed and those that would have been employed had output rates been taken to the point where the value of the marginal product and marginal factor prices were equal—the competitive industry equilibrium—become “excess” factor supplies offered competitive industries, where the value of the marginal product is already below that prevailing in the monopolistic sector. The “excess” factor supplies suppress factor prices, and, in turn, marginal value product, still further below the marginal value product of those factors in monopolistic industries. As long as this disparity in marginal value product exists, the national product can be increased by shifting factors from the competitive to the monopolistic sector. The market mechanism can be expected to accomplish this shift only if the monopolistic sector is made competitive. Hence, the elimination of monopoly in an economy containing both competitive and monopolistic industries, or varying degrees of monopoly, can be expected to increase the national product by equilibrating marginal factor costs with marginal value product (price) in all industries. In the process of moving from the old to the new equilibriums, prices in competitive industries would rise and those in monopolized industries would fall.

When confined to a given single national economy, the expected effect, probably the most important effect, of a decartelization program would be the resulting increase in national product and changes in relative prices. However, when decartelization is carried out simultaneously with the creation of a greatly enlarged “domestic” market through the elimination of internal tariffs and quantitative restrictions and the adoption of free convertibility of currencies (the European Economic Community case), the expected competitive effects may go considerably beyond interindustry resource transfers and changes in relative prices.

First, one of the most important measurable effects of such European Economic Community policies is the substantial reductions they bring about in the levels of industrial concentration in the relevant markets. This result is attributable to the displacement of six national markets by a community market through the elimination of trade barriers at national boundaries. To illustrate, prior to the formation of the European Economic Community the four largest motor vehicle producers in West Germany—Volkswagen, Opel, Daimler-Benz and Ford-werke—accounted for 76 percent of the total national output of motor vehicles. Volkswagen alone accounted for 36 percent.⁵ Similarly, the four largest French motor vehicle manufacturers accounted for 94 percent of the French market, with Renault alone ac-

⁴ It must be assumed also of course the marginal private costs and marginal social costs are equal. For other assumptions not especially germane to the analysis presented here, see William J. Baumol, “Welfare Economics and the Theory of the State” (Cambridge: Harvard University Press, 1952).

⁵ “L’Automobile, Marche mondial et Marche Française,” *L’Economie*, No. 433, 18 Fevrier 1954, pp. 6-9.

counting for nearly 39 percent.⁶ The level of concentration in Italy was as high as that in France, while automobile output in the Benelux countries was negligible. In the combined six-country market as of January 1, 1958, the four largest automobile producers accounted for about 45 percent and Volkswagen, still the largest, accounted for about 15 percent. Similar declines in concentration through enlargement of the relevant market occurred in other industries.

This is not to imply of course that prior to the formation of the European Economic Community various tight-knit national oligopolies enjoyed complete protection from their competitors in member countries. To take the case of automobiles, again, in 1957 France's exports to and imports from West Germany amounted respectively to 2.26 and 2 billion French francs.⁷ It can be assumed that in the case of both countries imported makes competed with domestic output. But in neither country could it be said that imports from the other exerted perceptible competitive pressures on the domestic oligopoly; the 2,500 to 3,000 vehicles exchanged amounted to a fraction of 1 percent of each country's domestic production of automobiles and faced an ad valorem import duty of 30 percent in France and 32 percent in West Germany.⁸

If we can accept as credible a reasonably large portion of the conclusions set forth in the voluminous theoretical and factual inquiries on oligopoly, it is evident that the creation of the European Economic Community provides a structural basis for considerably more competitive enterprise in Western Europe than has existed in the past. As national boundaries become irrelevant in the production and distribution of goods and services within the European Economic Community, national oligopolies will give way to a structural pattern much more consistent with effective competition. As the number of competitors increase and concentration declines, cartelization generally tends to rely more on formal agreements and less on tacit mutual understandings. Formal agreements, as the history of antitrust policy in the United States has revealed, are much easier to detect and, by their nature, fall more clearly within the compass of legislation prohibiting agreements in restraint of trade.

Second, the policies of the European Economic Community providing for greater mobility of labor, capital, and managerial resources fulfills one of the essential conditions for competitive resource allocation. The community's efforts to liberalize the mobility of labor have received considerable public recognition, largely because the language and cultural barriers have turned out to be far less formidable than were initially anticipated. Thousands of Italian workers have migrated from southern Italy, where they were either unemployed or engaged in jobs yielding a low marginal product, to fill the higher productivity employment opportunities of Western Germany. The effect of such labor mobility on productivity is evident. Consistent with the rapid pace at which the European Economic Community has progressed, the Common Market Commission has set January 1, 1964, as the deadline for abolishing existing restrictions on the free move-

⁶ Institut National de la Statistique et des Etudes Economiques, "Annuaire Statistique de la France," 1958.

⁷ *Ibid.*

⁸ Research and Planning Division, Economic Commission for Europe, "Economic Survey of Europe in 1956" (Geneva: United Nations, 1957), pp. 12-13.

ment and residence of citizens within the community, and approval by the Council of Ministers is expected.⁹ Meanwhile, the harmonization of such social institutions as social security, unemployment and retirement benefits, work rules, and minimum wages has made a substantial beginning.

More recently the Common Market Commission has turned its attention to implementing the concept known in the United States as "freedom of establishment." Construed broadly, "freedom of establishment" is simply an integral part of freedom of entry and resource mobility. With six national jurisdictions governing corporate enterprise in the Community, the variations in corporate law, the special restrictions and cumbersome procedures imposed on foreign corporations, six distinct patent systems and corporate tax policies, even differences in the definitions of corporate enterprise, collectively constituted a significant barrier to a corporation in one of the six member countries doing business in any of the other five. An important consequence is the restraints they impose on the movement of capital and managerial and technical resources. The European Economic Community Commission is currently drawing up detailed proposals for full implementation of the "freedom of establishment" and the elimination of national restraints on the movement of corporate enterprise.¹⁰

The extent to which removal of the foregoing public restraints on economic enterprise in the European Economic Community will lead to more optimal resource allocation will depend in large measure on the effectiveness of the Community's policies toward cartels and less formal private trade restraints. The removal of public barriers, as pointed out earlier, has already created a structural basis for more effective competition. But it is clear that their removal does not force the free competitive flow of goods, services, and productive factors within the community, but rather unleashes the normal incentives of private competitive enterprise to maximize the returns to productive agents irrespective of geographical location within the community. But it is evident that the effectiveness of the incentives to set in motion the envisioned competitive responses is largely dependent on whether European business firms regard the new freedom to compete as an opportunity or a threat, and on the European Economic Community's policies toward private trade restraints. In turn, the competitive responses will determine how the European Economic Community will affect the overall trade position of other nations and the competitive position of their particular industries. The European Economic Community's policies toward private trade restraints, however, are reserved for part III of this paper.

As pointed out earlier, decartelization of EEC should lead to an increase in the community's net product and changes in relative prices. Because cartel organization was much in evidence when the Rome Treaty became effective, these changes are potentially substantial. But decartelization will not only bring about substantial changes in relative prices, it should, in combination with the removal of public trade barriers, tend toward a general reduction in real costs of production in EEC relative to other countries. The reduction in real costs, under prevailing controlled exchange rates, should in turn lead to a general

⁹ Bulletin from the European Community, No. 56 (September 1962), p. 13.

¹⁰ For the most recent unofficial report on the Commission's progress see the New York Times, Oct. 14, 1962, p. F-1.

reduction in prices for goods produced in the EEC relative to those prevailing in countries producing similar goods.

Such a general reduction in real costs are, of course, only another aspect of the projected rise in the community's net product. If through a reallocation of the community's resources total output is increased, it logically follows that real costs per unit of output, in the aggregate, must fall. This would result even if the resource reallocation were prompted only by a reduction in cartelization (monopoly) that made all industrial sectors more uniformly effectively competitive. But there are other adjustments which should contribute further to a general reduction in real costs (and prices) within the community; namely, (1) those readjustments to new possibilities of greater specialization and exploitation of economies of scale the larger market provides, and (2) the new dynamism of competitive enterprise itself.

Economies of scale, when appropriately defined as a negatively sloped long-run static cost curve over a significant range of output relative to total market demand, have probably been credited with greater reductions in production costs than the relevant factual data, if available, would support. The predominance of the multiplant firm in most manufacturing industries in the United States suggests that distribution economies rather quickly offset the production economies attributable to mere plant size. The profitable existence of small firms no more than a fraction of the size of their largest rivals also suggests that long-run cost curves are relatively flat over a wide range of output. These phenomena, familiar to students of the U.S. economy, are also characteristic of manufacturing industries in EEC member nations, at least in the three large members, West Germany, France, and Italy.

Nevertheless, there are logical grounds for concluding that the greatly enlarged market will permit reductions in real costs through greater specialization and vertical disintegration.¹¹ In small markets firms often engage in certain functions having optimum output rates substantially different from that of their principal activity. They do so because the functions are essential to the principal activity, yet the market is too "thin" to induce independent firms to enter and specialize in these functions. One of the best illustrations from recent U.S. industrial history is the rapid rise of programing centers for electronic data processing—an industry subject to substantial scale economies. Until the number of firms programing production problems grew, it was uneconomical for any single computer producer to offer programing service. Hence, the few firms employing such methods had to perform their own programing, although at a highly uneconomical scale of operations. As the market widened, two large electronic data processing machine manufacturers entered the programing service business.

Similarly, a given firm may carry on an activity beyond its optimum rate of output because the alternative outlets in a small market are too few to induce entry. For example, firms may be deterred from entering into the production of parts for a large automobile manufacturer, when there are only three or four automobile manufacturers, by the fear of the monopsonistic power to which they may be subjected. This

¹¹ For the general theoretical argument behind this conclusion see George J. Stigler, "The Theory of Price" (New York: MacMillan Co., 1952) pp. 145-147.

may be true even though the economies of scale in parts manufacturing are exhausted long before the optimum output for automobiles is reached. But in the larger EEC market this barrier to entry becomes considerably less formidable.

There are no doubt numerous economic activities where static theory would suggest a reduction in real costs through the formation of the EEC. In the long run, however, the greatest effect of the EEC will be what European spokesmen are inclined to call the creation of "competitive dynamism."¹² There is a general consensus among students of Western economies that the high per capita income of the United States relative to Western European countries is attributable to its size, resource mobility, and "urge to compete."¹³ The competitive urge is generally attributed to certain environmental factors heretofore absent in European countries. Denied the stability and security of cartel organization since the enactment of the Sherman Act in 1890, enterprises in the United States have for several generations relied on innovation—in its broad sense—for their profitable survival. They have therefore expended a much larger amount of resources on altering the conditions of demand and supply than have their European counterparts. According to Britain's National Institute of Economic and Social Research, even as recently as 1961 U.S. industry employed 2½ times as many qualified scientists and engineers per thousand employees as British industry; and plowed about 4 percent of net output into research and development compared to 2 percent in Britain.¹⁴ Similar data on EEC members are not available but are generally believed to conform more closely to those of Britain than to those of the United States.

The new economic policies of EEC for eliminating public and private trade barriers will deprive European enterprises of their traditional means of security. By analogy, it is argued, they will now turn to the dynamic instruments of competition long in use in the United States. There is some evidence that this break with traditional methods of market organization has already begun. For example, in the 1950's the number of self-service food outlets in Europe went from less than 1,000 to over 36,000. The first American-style supermarket opened in Europe in 1956; by 1961 the number had reached 1000.¹⁵ It is known, but not by how much, that industrialists in Europe are beginning to step up their research and development activities.¹⁶ It is likely, therefore, that a new competition is in prospect for the new Europe.

These changes, both those accomplished and those in prospect, are not entirely attributable to the formation of EEC. Economic Minister Ludwig Erhard, in his "Wohlstand durch Wettbewerb," attributed much of the West German postwar "economic miracle" to Germany's new competition several years before the Rome Treaty took effect in January 1958. And economic growth and institutional change were

¹² These observations are based primarily on the results of interviews with European industrialists and EEC staff members between August 1958 and September 1959, and in June 1960 and May 1961.

¹³ See O.D.K. Norbye, "Mission Report on Restrictive Business Practices in the United States," EPA Project No. 414 (Paris: OEEC, 1959) pp. 11-12.

¹⁴ Cited in "Report on Western Europe," issued bimonthly by the Chase Manhattan Bank: No. 18, June-July 1962.

¹⁵ *Ibid.*

¹⁶ Information provided by Battelle Memorial Institute, Cleveland, Ohio, which now has two associated offices in the EEC.

in evidence in Europe in the early 1950's, as is borne out by the GNP indexes and the outbreak of national restrictive business practices legislation after 1950. But it is also evident that these earlier forces of economic change have been made more enduring and potentially more powerful through EEC's creation. It is equally clear that these new dynamic competitive forces hold important implications for the future course of international trade. They have already altered the composition of U.S. exports and imports,¹⁷ and will very likely continue to do so for some time to come.

The ultimate impact of these forces on the Community and on the nations with which it trades will depend in no small measure on the national and Community's new policies toward cartels and restrictive business practices. An appropriately designed market-sharing agreement can effectively frustrate the competitive trade incentives created by the elimination of national tariffs; a reversion to tradition cartel agreements can effectively subdue the newly established incentives for more dynamic competitive enterprise; and, as the post-1890 U.S. experience bears out, an increase in competition attained through successful prosecutions of price-fixing agreements can be offset, at least in part, by unchecked mergers.

III. THE PROSPECTS FOR COMPETITION: AN ANALYSIS OF ANTICARTEL POLICIES

The brief history of their existence requires that any assessment of the Community's anticartel policies be based much more on their prospective application than on their past administration. While it is true that the framers of the Treaty of Rome wrote articles 85 and 86 into the treaty as rules of law rather than as mere statements of principle, these articles remained in virtual abeyance until the EEC Council's first regulation governing competition became effective on March 13, 1962. The Commission and the Council considered the articles to be directly applicable as internal law of the member states, and therefore self-executing, prior to the Council's recent enabling regulation, but between January 1, 1958, and March 13, 1962, national governments exercised the treaty's articles only seven times, all of which were Bundeskartellamt decisions on exemptions.¹⁸

The prospective policy is made more conjectural by the fact that Community member states remain competent to apply articles 85 and 86 (except that they are not competent to grant exemptions) within their jurisdiction until such time as the Commission itself acts. Once the Commission assumes jurisdiction the member state's jurisdiction is vacated. Under this arrangement the uniformity with which anti-cartel policy is administered throughout the Community will depend heavily on the Commission's aggressiveness. Within the Community national legislation, and hence national policy, is characterized by a decided lack of uniformity, ranging from the highly complex and detailed West German Act Against Restraints of Competition enacted in July 1957, to an as yet unenacted bill on "The Safeguarding of Freedom of Competition" now before the Italian Parliament. While in cartel activities involving intramember trade articles 85 and 86 are

¹⁷ "Report on Western Europe," No. 18, June-July 1962.

¹⁸ Norbert Koch, "The European Economic Community," *The Patent, Trademark, and Copyright Journal of Research and Education*, vol. 6, 1962, conference number, p. 99.

binding on the governments of member nations, irrespective of their national legislation, the fear is frequently voiced by the business community and anticartel authorities of member nations with relatively strong national laws that the articles will not be enforced with uniform vigor throughout the Community.

Because the EEC has not yet closed its books on membership, the variety in national anticartel policies within the community will very likely increase before it diminishes. Great Britain, Norway, and Denmark have petitioned the EEC for full membership; the neutral nations—Austria, Sweden, and Switzerland—have sought associate membership; Portugal has begun discussions with EEC aiming toward some kind of association. Thus, all members of the "Outer Seven" (the European Free Trade Association) have applied for full or limited association with the "Inner Six." In addition, Ireland has applied for full membership and Greece has already been accorded associate member status. It is generally believed that admission of Great Britain, Denmark, and Austria—the last as an associate under special arrangements—is inevitable; only the timing is in doubt. The admission of Great Britain would bring into the EEC the most effective national policy against agreements in restraint of trade on the European scene.

This residual responsibility for anticartel policy vested in EEC member countries would alone require that national policies be included in an analysis of competitive institutions in Western Europe. But even stronger reasons justify their inclusion here. Policies proposed by the EEC Commission and approved by the Council of Ministers—political bodies on which all member nations are represented—cannot be entirely divorced from, or for a long time even at great variance with, the policies of the constituent nations. For political reasons the economic policies applied to citizens through the EEC cannot differ greatly from some common denominator of their respective national counterparts. There are also impelling practical reasons. The anticartel policies of the EEC apply to restrictive practices and monopoly abuses that adversely affect trade between and among member nations, while national policies apply to trade within their respective national jurisdictions. Accordingly, the greater the discord between national and EEC policies the clearer must be the line drawn between interstate and intrastate trade in the community, a complex problem that Europe has never before confronted. The tedious litigations involving the fine and ever-moving line between intrastate and interstate commerce in the United States, where State and Federal laws have been in reasonable harmony, over the past 170 years argue strongly that the necessity for clear distinctions between the two kinds of trade be held to a minimum.

NATIONAL ANTITRUST LEGISLATION

European countries, including four¹⁹ of the six Common Market countries, developed national policies toward monopoly and trade restraints before the Treaty of Rome became effective. Great Britain.

¹⁹ The Belgian statute on "Protection Against Abuse of Economic Power" was not enacted until 1960, but various bills had been introduced in Parliament throughout the 1950's.

enacted its Monopoly and Restrictive Practices (Inquiry and Control) Act in 1948, and its more positive Restrictive Trade Practices Act in 1956. The current French law dates from the decree of 1953 "relating to the maintenance or restoration of free industrial and commercial competition." The Netherlands enacted its "Economic Competition Act" in 1956. West Germany's "Act Against Restraints of Competition" was enacted in 1957. The Belgian statute (see note 19) was finally passed by Parliament, after years of deliberation, in 1960. Sweden, Ireland, and Norway enacted restrictive trade practices legislation in 1953, Denmark in 1955, and Austria in 1951. The legislative bodies of Italy, Luxembourg, and Switzerland all have restrictive trade practice bills before them for consideration; those of Italy and Luxembourg are designed to be in harmony with articles 85 and 86 of the Rome treaty. In addition to such national legislation, the treaties establishing the European Coal and Steel Community, the European Free Trade Association, as well as the European Economic Community, provide for controls over restrictive practices and monopoly.

The pace at which antitrust legislation has been introduced on the European scene is in itself highly significant. In 1950 Western Europe contained no agency of any kind seriously exercising direct control over the monopoly problem; by 1960 only four countries were without such an agency, and three of these were in the process of creating them.²⁰ The rapid development of such legislation does not mean that Europe has suddenly rediscovered the historic case for competitive resource allocation and adopted vigorous antitrust policies to assure its attainment. It will be demonstrated below that none of the foregoing legislation—national or supranational—sets up the legal framework prerequisite to what might be called in the United States a condition of "workable" or "effective" competition. But viewed collectively they do support the conclusion that throughout Western Europe monopoly and cartels have now become publicly recognized as potentially inimical to economic efficiency and progress.

Turning now to the substantive content of the national policies represented in the European Economic Community,²¹ in spite of their diversity several useful generalizations may be made. Except for certain provisions in the French and West German laws, the test of legality applied to any business practice is its actual or potential effect on the public interest rather than its effect on competition. The primary purpose of most national legislation is, therefore, to control agreements rather than eliminate them on the ground that they can be presumed to circumvent competitive market forces. Similarly, the laws generally do not establish a presumption against the mere possession of market power, but they do establish safeguards against its abuse. The theory of the laws in EEC countries, therefore, differs considerably from that of the United States. The per se illegality of price-fixing agreements, the presumption favoring competition over monopoly, and the strict prohibitions on mergers and other business practices that tend toward monopoly—the essential principles of U.S.

²⁰ The remaining country, Spain, is not listed in the various international legislative guides as having such legislation.

²¹ In view of the current negotiations between Great Britain and the EEC, Great Britain's legislation is included in the discussion.

antitrust policy—are subsumed under the single standard of effect on the public interest.

There is a great deal of diversity among the four nations in the EEC with antitrust laws, however, in their approach to this standard. In Belgium and the Netherlands the standard of the public interest is explicitly recognized in their respective statutes. In West Germany and France the laws prohibit certain agreements and practices, but provide for exemption if they can be shown to have certain effects deemed to be in the public interest. But the differences and similarities among the four national policies in practice depend almost entirely on how the respective responsible bodies exercise the broad discretion given them.

The Belgian law is for all practical purposes defined in its title: "Act on Protection Against Abuse of Economic Power." In enacting the statute in 1960 the Belgian Legislature made it clear that it did "not deem dangerous the mere existence of cartels and monopolies."²² Article 1 of the act defines economic power as the power of an individual or corporation, or a group of individuals or corporations acting jointly, to exercise a dominant influence on output, prices, or quality. Article 2 provides that those holding this power abuse it if they pursue "practices distorting or restricting the normal play of competition or obstructing either the economic freedom of producers, distributors, or consumers, or the development of production or trade."²³

The Netherlands law, while formally more specific in its prescriptions, in principle is similar to the Belgian statute. It is established on the premise that agreements and dominant market positions as such can be presumed to be neither beneficial nor detrimental to the public interest, and that a final determination in each case rests on the results of empirical analysis. This high degree of flexibility in administration, and the centralization of administrative authority in the Ministry of Economic Affairs, makes the Dutch law an instrument of business cycle policy as well as a means of controlling restrictive agreements and dominant enterprises.²⁴ Accordingly, it is quite possible that the legality of a given agreement may depend on the general level of economic activity or other overall economic considerations.

The Dutch law relies on registration. All agreements and trade association decisions affecting competition, except individual resale price maintenance agreements and agreements involving markets outside the Netherlands, must be registered with the Economics Ministry. As of January 1961 such registered agreements numbered 1,408. However, the Ministry may exempt certain classes of agreements from registration, issue a general prohibition against certain types of agreements, order the parties involved to modify the agreements terms, order an agreement binding on nonparticipants as well as participants, and so on.

The discretion the Ministry may exercise over dominant enterprises is equally broad. Should it find the enterprise acting contrary to the public interest it may prescribe rules on pricing, services, terms of delivery, and a wide variety of similar regulatory provisions.

²² Guide to Legislation on Restrictive Business Practices, Organization for Economic Cooperation and Development, looseleaf, Belgium, p. 1, November 1961 supplement (hereafter cited as OECD, Guide).

²³ *Ibid.*

²⁴ OECD, Guide, Netherlands, pp. 5-6.

In acting on agreements and dominant enterprises the Ministry must seek the advice of the Economic Competition Committee appointed by the Crown. The committee, consisting of at least 12 regular members and such additional members as are needed to bring expertise to bear on the particular matter involved, can hold hearings, require any person to submit information, and then advise the Ministry. The advice is neither published or binding.

Not only does the Dutch law leave wide discretion in the hands of the Economic Ministry, it is also very broad in scope, extending in principle to all economic sectors except labor relations and the professions. The extent to which the law actually promotes competition throughout the economy of the Netherlands is therefore a matter for the Ministry itself to decide. It is generally believed that in recent years the Ministry has administered the Dutch restrictive practice policy with increasing vigor.²⁵ The Ministry has, within the past several years, declared inadmissible a wide variety of agreements for exclusive trading, individual and collective vertical price maintenance, and horizontally fixed minimum prices. In August 1961 the Ministry imposed a set of obligations on a group of enterprises holding a dominant market position for the first time. And, in general, the Ministry has tended increasingly to direct its actions toward suppressing rather than encouraging restrictions.

The French law governing restrictive business practices consists of a 1945 price ordinance greatly supplemented and amended by the decrees of 1953, 1958, and 1959. Collectively, they reflect the French Government's concern over postwar inflation and industrial reorganization. Accordingly, French policy is comparatively strict toward price-fixing agreements that tend to raise prices, and comparatively tolerant toward agreements that further economic efficiency, progress, and market rationalization. Article 37 of the French law forbids (1) refusals to sell, (2) price increases not cost-justified, (3) making a sale conditional upon the purchase of a stipulated quantity or other goods, and (4) the fixing of minimum prices. On the last prohibition, the French law is much stricter than that of most countries, in certain respects even stricter than the Sherman Act of the United States. It extends to resale price maintenance of all kinds and to horizontal price maintenance enforced by either a cartel or a "dominant position." In theory, the law provides for exemptions; in fact very few exceptions have been granted.²⁶ Article 59, in addition, prohibits "every concerted action, convention, combine, express or implied, or trade coalition in any form—which has the object or may have the effect of interfering with full competition by hindering the reduction of production costs or selling prices or by encouraging an artificial increase of prices." This broad and strict prohibition, however, has two important exemptions: It does not apply to those concerted actions, conventions, or combines (1) arising out of the application of a law or regulation, or (2) which permit the expansion of economic progress by extending markets or by rationalization or specialization. This principle of prohibitions with exemptions in fact means that the legality of each combine or agreement must be

²⁵ Cf. OECD, *Guide, Netherlands*, pp. 3.0.1–3.1.1, and *Cartel Policy and the Common Market*, PEP, vol. XXVIII, No. 464 (August 1962), p. 227.

²⁶ OECD, *Guide, France*, sec. 1, p. 4.

determined on a case-by-case basis, since the prohibition establishes no presumption of illegality until the grounds for exemption have also been examined.

Infringement of the law is a criminal offense, in theory subject to severe penalties—up to 5 years' imprisonment and a fine up to 6 million new francs. In practice, however, the government nearly always invites the parties concerned to take the necessary steps to restore competition.²⁷ Complaints arising under articles 37 are handled by the Economic Inquiry Branch of the Price and Economic Investigation Directorate. The announced policy of the branch is "to secure observance of the law without legal proceedings."²⁸ Assessment of whether combines are entitled to exemption under article 59 is entrusted to the Technical Commission on Combines, which, as a consultative body, makes recommendations to the Minister of Economic Affairs. The Minister, when the Commission's opinion finds no grounds for exemption, seeks voluntary compliance rather than action in the court.

As in the case of the Netherlands, the evidence points to a more energetic use of the highly flexible French law in favor of competitive market solutions. The French prohibition of minimum price maintenance, refusal to sell, and discriminatory selling practices has, according to French officials, now become accepted by business interests. The Technical Commission on Combines recently has laid down the general principle that agreements, to be legal, must profit not only those who are party to them but also, to an important degree, their customers and the economy as a whole.²⁹ In an important judgment in 1959, the Court of Cassation held that the restrictive practices laws were made in the general interest and not for the protection of private interests.³⁰ Finally, the Rueff Armand report of July 1960 recommends more effective machinery to deal with restrictive business practices in France, and emphasizes the need for more effective competition.

The 1957 German law against restraints of competition is unquestionably the most comprehensive statute of its kind. It is also considered by many to be the most effective policy in Europe, the national policy most akin to that of the United States, and an important forerunner of the restrictive business practices provisions contained in the Treaty of Rome.

As originally framed, the German law was an uncompromising blueprint for a highly competitive economic order. However, in the long debates between 1952, when the bill was introduced, and 1957, when it was passed, it was considerably compromised by the insertion of many exceptions. In its final form, the act provided regulations for horizontal agreements (cartels proper), vertical agreements, monopolies, and business practices involving discrimination or other restraints of competition, and established a Federal Cartel Authority (Bundeskartellamt) similar to the U.S. Federal Trade Commission to administer them.

The act prohibits horizontal agreements a priori, but provides for two important classes of exceptions. First, agreements concerned

²⁷ *Ibid.*, p. 5.

²⁸ *Ibid.*, p. 4.

²⁹ *Cartel Policy and the Common Market*, pp. 223-224.

³⁰ *OECD, Guide, France*, sec. 3.0, p. 1.

with rebates, general delivery terms, exports, and uniform application of standards registered with the Authority are automatically permitted if not challenged within a 3-month period. Secondly, parties to agreements may apply for the Authority's express authorization under one of the provisions for exemption. These include, among others, agreements necessitated by a "crisis," the public interest, or a special economic situation, rationalization agreements, and export and import agreements.

The act also prohibits vertical agreements, but specifically exempts resale price agreements for branded goods in open price competition, provided the details of the agreement are filed with the Federal Cartel Authority.

The act provides for two courses of action against monopoly, or market-dominating enterprises. If it can be shown that such enterprises abuse their market position, the Cartel Authority may prohibit the abuses; if the parties to a merger obtain as much as 20 percent of a specific market, or if one of the enterprises possesses this share before the merger, the merger must be reported to the Authority. However, the Authority has no power to prevent the merger, irrespective of the market share involved.

Finally, the act prohibits such restraints as discriminatory action by cartels, market-dominating enterprises, and enterprises that maintain resale prices through agreement; and prohibits boycotts and business tactics which tend to cause restrictive behavior.

The Federal Cartel Authority, as of December 31, 1961, had registered 119 cartel agreements, most of them under the exemption provisions. It had received into its files resale price maintenance agreements from 1,109 enterprises covering 198,059 branded articles. It had instituted 775 proceedings on suspicion of abuses, and it had instituted 1,906 actions against suspected unlawful restraints of competition.³¹ The Authority has repeatedly urged that the laws it administers be strengthened, particularly that it be provided with legal means to prevent certain mergers, that the present laws against horizontal and vertical agreements be strengthened, and that the scope of the law be extended to certain economic sectors at present beyond its jurisdiction. In this connection, the Authority accurately assessed the present German law when it stated in its 1961 annual report that—³²

The application of the provisions of the act * * * within the framework established by the law—is an effective means toward promotion and realization of the economic concept of the free market economy based on social justice * * * but—as is pointed out by the Government—it did appear that the provisions of the law do not suffice in all cases to insure the freedom of competition, and thus an optimum efficiency of the free market economy.

Great Britain's restrictive business practices policy, while in principle is similar to the German policy in important respects, is unquestionably the most effective policy toward restrictive agreements outside the United States. The Restrictive Trade Practices Act of 1956 established the presumption that restrictive agreements were contrary to the public interest, and placed the burden of proving the contrary

³¹ Annual Report of the Federal Cartel Office, 1961.

³² Annual Report: Summary (English translation), p. 31.

on those seeking to uphold the agreement. The act provided for seven conditions under which such agreements might be upheld:

- (1) Necessary for the public safety;
- (2) Is advantageous to the public as purchasers, consumers, or users;
- (3) Is necessary to counteract restrictive measures taken by an outside monopoly;
- (4) Is necessary to enable the parties to match the bargaining power of a dominant buyer or seller;
- (5) Its removal would have a serious and persistent adverse effect on the level of employment in an area (not simply in the industry concerned);
- (6) Its removal would cause a substantial reduction in exports; and
- (7) It is necessary as an adjunct of another agreement already approved by the court.

However, the fact that an agreement can meet one of these conditions does not mean that it is automatically approved. In a recent case involving cotton yarn producers, the agreement met one of the conditions, but was nevertheless declared null and void on the grounds that its detriment to the public interest was not outweighed by the exempted benefit. Moreover, more than in any other European country, the courts of Great Britain have equated "public interest" with "effective competition." Of 80 agreements that have already gone to the courts, only 18 have been contested to a final decision. Of these 18, only 5 have successfully sustained the burden of proof that they were in the public interest. In Great Britain, says Prof. S. R. Dennison, "[The] Court(s) have taken a competitive situation as the norm."³³

Procedures provided for in the 1956 act establish an Office of the Registrar, where all agreements must be entered on a public register, and a Restrictive Practice Court to try those challenged by the Registrar. The act further provided for individual resale price maintenance to be enforced through civil courts, but expressly prohibited the collective enforcement of resale price maintenance by boycotts and stop lists.

Dominant firms and agreements, limited solely to exports, are under the jurisdiction of the Monopolies and Restrictive Practices Commission, established in 1948. The Commission acts only on the initiative of the British Board of Trade, and the recommendations stemming from its inquiries are not binding on the Board of Trade.

THE EUROPEAN COAL AND STEEL COMMUNITY AND THE EUROPEAN ECONOMIC COMMUNITY

Although the restrictive business practices provisions of the treaty establishing the Coal and Steel Community (ECSC) differ in substance and procedure from those laid down in the Treaty of Rome, both sets of provisions reflect the two basic principles that dominate national policies toward cartels and monopolies in Europe: (1) A general prohibition on restrictive agreements, but with provisions for exemptions; and (2) special treatment for market-dominating enterprises.

³³ "Restrictive Practices and the Act of 1956," *Lloyds Bank Review*, January 1961.

Article 65 of the ECSC prohibits all agreements which tend "directly or indirectly, to prevent, restrict, or distort the normal operation of competition in the Common Market." This prohibition makes any such agreement void, and parties cannot seek compliance through the courts of member states. However, the High Authority may exempt specialization agreements, joint buying and selling agreements, and certain distribution agreements provided they fulfill all of three conditions:

- (1) They must contribute a substantial improvement in the production or distribution of the goods to which they apply;
- (2) They must be essential to this end and no more restrictive than is necessary for this purpose; and
- (3) They must not give the interested parties the power to fix prices, control or limit the production or selling of a substantial part of the products in question in the Common Market, or of protecting them from effective competition within the Common Market.

These exemptions are not automatic but require the express authorization of the High Authority, which has the sole power to grant such authorization. The Authority is further empowered to impose large fines and penalty payments for violation of the article.

Article 66 of the ECSC provides that any transaction bringing about a concentration within the Common Market must obtain prior approval from the High Authority. If the concentration does not give the enterprises involved the power to fix prices, control or restrict production or distribution, or to prevent effective competition in a substantial part of the market, or to evade the treaty's rules of competition, the Authority must authorize the transaction, although it may modify its terms. Should the transaction not meet these conditions it may declare it illegal and order dissolution of the concentration or take whatever other action as may be necessary "to restore normal conditions of competition." This provision of article 66 comes closer than any cartel statute in Europe—national or supra-national—to the antimerger statute of the United States. Where an enterprise, public or private, already possesses a market-dominating position in the Common Market, the High Authority may recommend ways in which such enterprises may avoid using their position for purposes in conflict with the ECSC Treaty. If the recommendations are not followed, the High Authority is empowered, after consultation with the national government concerned, to impose regulations over the enterprise's prices, deliveries, and other terms of sale.

To date, the High Authority's greatest effectiveness in maintaining competition in coal and steel has probably stemmed from its informal actions and its power to act rather than from clear-cut doctrines derivable from its decisions. Up to January 31, 1962, the Authority had taken up 215 cartel cases under article 65, and had disposed of 169.³⁴ However, while authorizing 28 it prohibited only 6, although it brought about the voluntary dissolution of 8. The Authority had authorized 48 concentrations but had formally denied none; however, in its effort to lay down conditions under which the merger of the Thyssen-Hutte and Phoenix-Rheinrohr interests might be approved

³⁴ "Cartel Policy and the Common Market," p. 245.

it induced the parties to withdraw their application altogether. It has also initiated an inquiry into one concentration which did not request authorization.

The rules governing competition contained in the EEC Treaty are less incisive than those of the ECSC Treaty, no doubt in part because they were framed with subsequent elaboration in view. However, they are similar in broad principle. Article 85 of the Treaty of Rome establishes a general prohibition against agreements between enterprises, decisions of trade associations, and concerted practices which restrict competition and are apt to affect intermember state commerce. Such practices are declared void. However, if they contribute to the improvement of production, distribution, or technical or economic progress, they may be exempted provided the parties comply with certain stipulations. Article 86 forbids the abuse of a dominant position in the Common Market or any substantial portion thereof. The first regulation, issued by the Community to become effective on March 13, 1962, makes both articles 85 and 86 a priori effective without further action by the Commission, and hence self-enforcing as internal law of the Community's member nations. The main purpose of this regulation is to insure uniform application of articles 85 and 86 throughout the Community, to establish predictability of the law for all parties concerned, and to provide the necessary procedures for the Commission to pursue an effective antitrust policy.³⁵

The regulation also empowered the Commission to make the necessary inquiries and investigation, to issue cease-and-desist orders, and to impose fines for negligent or deliberate violation of articles 85 and 86 of from \$500 to \$1 million, or 10 percent of the turnover of business for the participating enterprises during the preceding year. To compel timely compliance with the Commission's decisions, fines may be imposed at the rate of \$50 to \$1,000 for each day's delay.

The "Rules of Competition" of the EEC still lack predictability, and unquestionably will remain imprecise in application until the Commission issues further clarifying regulations, the Court of Justice has rendered sufficient decisions to give them judicial substance, and the national policies of member states toward cartels and monopoly have attained greater uniformity. Nevertheless, as one staff member of the Community's Commission on Competition recently put it in drawing an analogy between the United States and the Community's antitrust policies, "This situation may be considered a deplorable lack of predictability of law, but * * * people do know what it means in general terms. It is not always clear and it is not always certain with respect to borderline cases in application to specific circumstances."³⁶ This statement could have applied with equal validity to the Sherman Act in 1894, 4 years after its enactment.

The foregoing parade of national and supranational legislation pertaining to restrictive business practices and monopoly clearly fall short of assuring a workably competitive European Economic Community. At the national level the laws of Italy and Luxembourg have yet to be enacted: those of Belgium have yet to be exercised. The Netherland's law, in its present form, is still a broad economic rule of reason. In France and Germany prohibitory statutes provide for numerous excep-

³⁵ Norbert Koch, *op. cit.*, p. 100.

³⁶ Norbert Koch, *op. cit.*, p. 102.

tions. The laws of the EEC itself still lack specificity and judicial substance. Nevertheless, collectively they add up to an unmistakable trend in Europe toward a growing mistrust of traditional cartels, and a discernible trend toward an insistence on reasonably competitive regulation. Within the EEC the pace at which the removal of private restrictions on trade is slower, as is perhaps inevitable, than that at which public barriers are being reduced. But it is of significance that in Europe the necessity for removal of both have been identified as a policy objective, and that the legal machinery prerequisite to its attainment have been erected and set in motion.

IV. COMPETITION IN THE EEC AND INTERNATIONAL TRADE

It is clear that as Western Europe moves toward more competitive enterprise both intra-Community trade and trade between the Community and other nations will be affected. In part, however, the Community's external trade will be governed by the level of its external tariffs. The Community's publicly announced goal on this matter is that the organizational change within Western Europe shall be "trade creating" rather than "trade diverting." In its initial 4 years of existence both intra-Community trade and the Community's external trade have increased, the former substantially more than the latter.

A good deal has already been said about the increased investment, especially by U.S. companies, in the Common Market as a means of avoiding existing and anticipated tariffs.³⁷ Of equal significance, however, will be the changes in relative prices in the Common Market and the stimulus to dynamic competitive enterprise the removal of restraints should bring about. How these will affect U.S.-EEC trade cannot be predicted, but it can be predicted that they will have differential effects on various industries. It seems to be generally agreed that the relative advantage held in the past by the heavy research and development oriented industries of the United States will probably diminish in the future. This obviously depends in part on the future research and development effort U.S. firms will make. On the other hand, the rise of food chains in the EEC has already created substantial increases in demand for U.S. packaged food and food products, and the accessories that go into chainstore methods of distribution. These are only illustrative of the trade patterns already affected. As prices and costs of various EEC industries adjust to more competitive norms, and as innovational activity by these industries is intensified, others will also be affected, but which industries, and by how much, is outside the scope of this inquiry.

³⁷ Cf. *New York Herald Tribune*, Paris edition, Feb. 24, 1959, p. 9.

PROTECTED MARKETS AND ECONOMIC GROWTH

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PROTECTED MARKETS AND ECONOMIC GROWTH

EXPORTS, IMPORTS AND GROWTH

This paper seeks to explore the economic history of France and Britain in exporting to colonial protected markets with a view to determining what light that experience may throw on current U.S. problems.

The relations between foreign trade and domestic economic growth may take many forms. These relationships are best thought of in terms of distinct "models," any one of which may apply to a given set of circumstances. Most of the models relating foreign trade to economic growth are familiar. We propose to mention altogether four, and to discuss the last and least familiar of the group.

The first two models concern the relations between imports and growth. On the one hand, there is the infant-industry argument for tariffs which occupies a prominent part in the tariff history of this country, especially in the 1792 tariff of Alexander Hamilton and the McKinley tariff of 1891. This asserts that tariff protection for an industry can enable it to grow to such a size that its long-run cost curve falls, thus enabling it to compete effectively with foreign output. The test of whether this model applies in any given situation is whether the tariff, after a time, can be safely removed. Another demonstration of its applicability which may occur, without the removal of the tariff in practice, is the beginnings of exports by the industry. An example is furnished by certain branches of the chemical and pharmaceutical industries, which may be said to have grown up.

On the other hand, the tariff may be used, not as a stimulus to useful growth, but as a crutch to slow down imminent decline. An industry which becomes sluggish in technology, or which continues to use large amounts of labor relative to machinery when the level of wages has risen in comparison with the rate of interest, may seek tariff protection to fend off competition from countries adopting the same technology possessing less expensive labor.

This second model has lately been inverted. Tariff removal has been regarded as a spur to technological change of a cost-reducing nature, both in the European Economic Community, where customs duties are being removed among countries forming a customs union, and in the United States where the Trade Expansion Act of 1962 envisages the reciprocal lowering of duties between the United States and its negotiating partners, primarily the European Economic Community, but with the concessions extended more widely on the basis of the most-favored-nation clause. The United States seeks somewhat greater concessions in its exports than it proposes to grant on its imports, given its past record of putting into effect tariff reductions on a more thorough basis than other countries, and in view of its weak balance-of-payments position. It is hoped, however, that the spur of com-

petition from tariff reduction may produce such technological innovation in sluggish American industries that imports are unable to expand at the expense of domestic production, and that in some industries imports even lose ground. It is not impossible that some such industries, spurred on by import competition, may develop into exporters. Such has happened in postwar France with the gradual reduction of quotas and tariffs, in aluminum, and automobiles.

Economic history has some light to throw on this model, and in particular on the impact of tariff reductions on the balance of payments. The circumstances were unique, of course, but it is of interest to note that the merchandise-trade balance of Great Britain quickly recovered from the unilateral reduction in the tariff on food stuffs when the Corn Laws were repealed in 1846, and the French balance of trade from the mutual reduction in the Anglo-French Treaty of Commerce of 1860 (see tables 1 and 2).

TABLE 1.—*Merchandise trade balance of Britain, 1844-53*

[In millions of pounds sterling]

Year	Imports	Exports	Balance of trade	Year	Imports	Exports	Balance of trade
1844.....	78.9	64.6	-12.3	1849.....	101.4	75.7	-25.7
1845.....	88.4	69.4	-19.0	1850.....	103.0	83.4	-19.6
1846.....	87.3	67.0	-20.3	1851.....	109.5	86.9	-22.6
1847.....	112.1	70.5	-41.6	1852.....	110.0	91.1	-18.9
1848.....	88.2	61.3	-26.9	1853.....	148.5	115.7	-32.8

Source: Albert H. Imlah, "Economic Elements in the Pax Britannica," Cambridge, Mass., Harvard University Press, p. 38.

TABLE 2.—*Merchandise trade balance of France, 1859-68*

[In millions of francs]

Year	Imports				Exports				Trade balance
	Food-stuffs	Raw materials	Manu-factures	Total	Food-stuffs and raw materials	Manu-factures	Total		
1859.....	374	1,205	62	1,641	863	1,403	2,266	+625	
1860.....	395	1,443	59	1,897	849	1,428	2,277	+380	
1861.....	842	1,488	112	2,442	745	1,181	1,926	-516	
1862.....	614	1,433	152	2,199	882	1,361	2,243	+44	
1863.....	541	1,741	144	2,426	1,152	1,491	2,643	+217	
1864.....	507	1,866	155	2,528	1,219	1,705	2,924	+396	
1865.....	499	1,971	172	2,642	1,413	1,675	3,088	+446	
1866.....	495	2,092	207	2,794	1,465	1,716	3,181	+387	
1867.....	825	1,972	230	3,027	1,296	1,530	2,826	-201	
1868.....	951	2,116	237	3,304	1,306	1,484	2,790	-514	

Source: Institut National de la Statistique et des Etudes Economiques, "Annuaire Statistique de La France, Rétrospectif," Paris, Imprimerie Nationale, 1961, Chapter XXI, Table II, p. 199.

It is, of course, impossible to isolate the effect of any one action in history. In the case of Great Britain, the balance of payments was affected not only by the repeal of the Corn Laws but also by the discoveries of gold in California in 1849 and in Australia in 1851, the Revolution of 1848 on the Continent, large-scale lending abroad for railway construction, and a host of other influences. The same is true in France, where the widespread fear of inundation by British manufactured goods was forestalled by the Civil War in the United States

and the world cotton famine. But it is of interest to note that the British balance of trade worsened for 3 years, 1847, 1848, and 1849, and by only £10 million, before resuming its fluctuations about the old level. In France, the balance of trade worsened abruptly in 1861, but owing primarily to the increase in grain imports from Fr22 million in 1860 to Fr390 million in 1861, which had nothing to do with the tariff reduction. Imports of manufactured goods, on which prohibition of imports was eliminated and very high tariffs considerably reduced, rose substantially in percentage terms, but the overall magnitudes were of limited effect on the trade balance.¹

Apart from the balance-of-payments effect, British agriculture improved despite the import competition, at least to 1873. "High farming," the adoption of capital-intensive methods particularly of drainage, purchased fertilizer, and horse-drawn machinery, had been devised in the 1830's and 1840's, but adopted after the repeal of the corn laws. Five years from the repeal ushered in the "golden age of English agriculture," from 1853 to 1862.² Sir James Caird, the agronomist, pointed the moral in 1848 in a pamphlet entitled "High Farming—The Best Substitute for Protection".³

Across the channel, the mutual reduction of tariffs and the stimulation from imports helped to "bring about the full development of the industrial revolution in France."⁴ British surpluses of cotton goods poured in for 3 months, and the industry in Normandy suffered a severe crisis under this competition and that of other parts of France, rapidly being linked by the newly constructed railroad system. Elsewhere, however, and especially in Lille and in Alsace, the cotton-textile industry found its main preoccupation in the shortage of fiber, not the pressure of British competition. In woolens, machinery was adopted under the influence of external and internal competition, and with improved technology, Roubaix was even able in due course to export to Bradford. In iron, the treaty and the railroad system together killed off the scattered small-scale charcoal foundry. By 1864 three-quarters of French iron was produced from coke.

It is of interest to take note of adjustment assistance in both Britain and France. In Britain after the repeal of the corn laws, loans were made available to agriculture for installing pipe drains. The amounts were £2 millions in Great Britain, and £1 million in Ireland. In France, 40 million francs, equivalent to \$8 million, was loaned by the Treasury to industry at 5 percent interest for the renewal of equipment; 9.1 million francs went to metallurgical concerns, 15.1 million to textiles. All were repaid except for one loan to a coal concern in Bordeaux which went bankrupt.

So much for the trade-and-growth model in which imports stimulate growth.

The third model is a familiar one in which exports stimulate growth. There are a number of variants. In some cases, an increase in foreign

¹For a discussion, see Marcel Rist, "Une expérience française de libération des échanges au dix-neuvième siècle: le traité de 1860," *Revue d'Economie Politique*, 66e année, novembre-décembre 1956, pp. 908-961; and the classic Arthur L. Dunham, "The Anglo-French Treaty of Commerce of 1860 and the Progress of the Industrial Revolution in France," *Ann Arbor, Mich., University of Michigan Press*, 1930.

²Lord Ernle, "English Farming Past and Present," 5th ed., edited by Sir A. F. Hall, London, Longmans, Green & Co., 1936, p. 373.

³*Ibid.*

⁴A. L. Dunham, *op. cit.*, p. 179.

demand for the products of an industry expands employment, profits, capital formation, and productivity. In others, the increase in productivity initiates the change in exports, and would have been cut off by falling prices had it not been possible to sell abroad. Export-led or export-supported growth is sufficiently familiar from American experience generally,⁵ British history in the industrial revolution and the 1850's, not to mention the Common Market operation today, that we propose not to examine it. It is worth noting, however, that the argument for the British joining the Common Market and for the United States to form a close partnership with it turns on the expansionary pull to exports as much, or even more, than the competitive push for import-competing industry.

The fourth model, which will occupy the bulk of this paper, is less familiar. In it, exports expand; but in familiar products, protected markets and away from the sharply competitive areas where technological change is the most rapid. The increase in exports may be said to slow down growth because it permits the economy to evade the necessity for facing structural changes. Exports are of course a symptom rather than a cause of the underlying difficulty, and it is by no means certain that had they not expanded, the root problem, whatever it was, would be addressed and solved. But insofar as expanded exports to protected markets enable the economy to ignore the cause of technological slowdown, structural distortion, or inability to compete with the industrial leaders for any other reason, there is a basis for saying that exports to protected markets slow down growth.

This proposition will be examined in the experience of Britain after 1875, France in the 1930's and after the war, along with its relevance for the United States since 1953.

BRITISH EXPORTS TO PROTECTED MARKETS

British economic growth was very rapid from the 1840's to 1873. This was largely due to British leadership in railroad equipment, steel, coal, merchant shipping. After about 1875, however, the technical superiority of Britain began to decline. Germany and the United States caught up and surpassed her in various lines. But British reaction, instead of fighting to regain its technical advantage, was to shift its attention to the Commonwealth and to agricultural countries outside the Commonwealth. This was the case with trade, with emigration, and with capital exports.

Capital exports and migration turned away from the Continent before trade, and continued longer to the United States. Britain had been put off France, and Germany by the Revolution of 1848. The busy interchange of experts to Europe came to a halt. Capital exports went to India, to Egypt during the cotton famine, to the United States for the railroad boom. The capital requirements of Europe were left to the French bankers, who created industrial banks in Germany, Spain, Italy, Switzerland after the pattern of the *Crédit Mobilier* which was so successful in the 1850's in France.⁶

Trade continued to expand both with the industrial countries and with the world outside of the Empire. This was partly owing to the

⁵ See D. C. North, "The Economic Growth of the United States, 1790-1860," Englewood Cliffs, N.J., Prentice-Hall, 1961.

⁶ See Rondo E. Cameron, "France and the Economic Development of Europe, 1800-1913," Princeton, N.J., Princeton University Press, 1961.

rapid expansion of trade in coal, and to the inflation in the United States in the 1860's. But not only did the overall percentage share of the Empire drop from 35 in 1854 to 23 in 1871; the percentage share of the Empire remained fairly steady in cotton goods and declined in woolens and coal. Table 3 shows the percentage of exports of home products to the Empire by turning points in the annual series from 1854 to 1936, using Schlote's figures. Table 4 gives a breakdown of average exports to industrial and agricultural countries for selected periods. Table 5 gives the percentage of exports to the Empire in leading categories of goods, together with value figures for 1913.

TABLE 3.—*British Empire share of British export trade, by selected years, in percent of total*

1859.....	35.4	1917.....	29.9
1871.....	23.9	1927.....	45.1
1885.....	36.6	1931.....	38.8
1895.....	31.0	1936.....	46.5
1902.....	38.5		

Source: Werner, Schlote, "British Overseas Trade from 1700 to the 1930's," Oxford, Blackwell, 1952, table 20.b, pp. 161-62.

TABLE 4.—*United Kingdom trade with industrial and agricultural countries for selected periods, 1854-1929*

[Annual averages in percent]

	1854-57	1867-69	1877-79	1887-89	1909-13	1927-29
Industrial countries.....	43.7	41.5	37.1	35.7	30.4	24.9
Agricultural countries.....	56.3	58.5	62.9	64.3	69.6	75.1

Source: *Ibid.*, table 31, p. 82.

TABLE 5.—*British Empire share of British exports of selected products, selected years, 1850 to 1934*

[In percent of total]

	1850	1870	1913	1913 total exports	1929	1934
				<i>Millions (£97.8)</i>		
Cotton goods (bales).....	31.2	34.7	51.7	(59.7)	50.0	53.2
Coal, coke, briquettes.....	14.9	12.4	3.7	(53.7)	5.8	9.8
Iron and steel.....	20.5	28.3	48.2	(27.7)	51.4	55.3
Other woolen goods (than yarns).....	17.3	14.0	33.5	(33.6)	31.8	37.7
Machinery.....	13.7	19.0	32.5	(21.0)	43.5	51.2
Clothing.....	52.6	55.5	68.6		63.6	66.5
Total exports.....	27.2	26.0	37.2	(525.2)	41.5	44.0

Source: *Ibid.*, table 22, pp. 166-67.

The tables tell a clear story. The big increase in the percentage of British exports going to the Empire and to agricultural countries occurred after about 1870, and was most rapid in the 1870's and again just before 1913.⁷ It would have been much greater had it not been for a contrary movement in the second largest export in 1913 (by a thin margin), coal. The diversion of exports to protected markets took place largely in cotton gray goods, iron and steel rails, galvanized iron sheets (for roofing), locomotives, tinplate, woolens, and worsteds.

⁷ For a chart, see Schlote, "British Overseas Trade," p. 91.

The factors responsible for this change are complex. But first note that these were protected markets for Britain in no tariff sense up to 1897 and after that through no efforts of Britain until the Ottawa Agreement of 1932. Joseph Chamberlain, of Birmingham, had sought Empire preference in the early 1890's, but it was granted unilaterally by the dominions at the end of the decade. Canada first gave Britain a 16-percent reduction over most favored rates, as a response to the U.S. enactment of the Dingley tariff. The level was raised to 25 percent in 1898 and 33½ percent in 1900. Other dominions followed: New Zealand and South Africa in 1903 and Australia in 1908. But these unilateral trade preferences were limited to the dominions. Up to 1897, and after that date for the colonies, the Empire was a protected market primarily because of technological and institutional factors.

The technological reasons are elusive. In the 1850's and 1860's Britain was the leader in, say, steel technology. The Bessemer process (1856), the Siemens-Martin (1866), and the Gilchrist Thomas (1878) were all British inventions. In cotton textiles, the wave of investment between 1866 and 1875 brought the Lancashire industry up to a scale (new spinning mills averaging close to 80,000 spindles per mill) met nowhere in the world. By 1875 British efficiency in coal production led the world, and the same was true of shipping for another 15 years. But, by and large, what has aptly been called the climacteric in British industrial life occurred in the 1870's, with a rapid decline in the rate of productivity advance thereafter. Breaks in the rate of increase in productivity have been observed in coal, steel, textiles; perhaps more significant was the continued technical advantage of Germany, the United States, and even, in a number of lines—woolens, locomotives, glass, soda ash—France. The reasons for this British loss of leadership have been variously ascribed to the changing character of technical progress from the empirical to the scientific, the absence of technical education in Britain, and the assumption of industrial command by the third or fourth generation of the industrial revolution pioneers, with less interest in business as compared with sport, land, politics. The question is one which cannot be resolved here.

One small technical point can be related to the institutional. As the British standard of living rose, some firms altered their products to those which would suit the English market. Not in all cases were these products suitable for export, nor were the producers interested in making them so. Other firms which did not change their products found the old markets wanting an upgraded product and could continue to export only by finding new market countries without textile mills, or countries newly undertaking to build a railroad network. But the firms producing for the British market which had been in the van of exporting, so raised the quality of their output and offered it abroad on a take-it-or-leave-it basis, that they dropped behind in the rapidly changing markets. The analogy today is the loss of the American market abroad for automobiles as the U.S. product became more complex and automatic, while foreign markets were interested primarily in the smaller, lighter, and cheaper models.

Other institutional factors were the organization of British trade and finance. The shifting of British migration and capital exports to the Empire and such countries as Argentina had a definite effect in

promoting British exports to these areas. No British loans were tied, in the modern sense, and there are numerous examples of British capital being spent in third countries. Canadian provinces and railways, for example, typically borrowed in London but spent a sizable portion of the funds in the United States, and British exports of textiles to India depended in no way on capital exports. In addition, British export trade benefited from French loans which again were not tied. But in many instances the link between capital lending and trade was close. The 1885 to 1890 spurt of lending to Argentina for railroads led to large orders for British locomotives and rails. India in its turn bought nearly 500 British locomotives.

In trade, the role of the merchant deserves mention. The merchant trader stood between the producer and the customer, and diminished the incentive of the former to respond to the wants of the latter. It was easier for him to find another customer for the old good, no longer wanted, and even another source of supply for the new product. Disarticulated firms working through highly organized markets are effective in the distribution of standardized products; the decentralized responsibility for decision-making for production on one hand and for selling on the other results in efficiency. When the character of products is changing, however, vertical integration can play a role in insuring that the producer and customer understand exactly how to adjust the relative needs of the one against the varying costs of the other. British literature at the turn of the century contrasted the German export representative eager to see how nearly and at what cost his customers wants could be met, and the cavalier attitude of the British merchant unable and unwilling to negotiate on specifications. The merchant system has lasted a long time in British industry, and is even today blamed for the lag in British exports in such lines as machine tools. By contrast, in the United States the rise of the national corporation after the development of the railroads led to a change in the institutional pattern in which the marketing function was taken back from the wholesaler into the enlarged corporation when it sold on a national rather than on regional lines.

The traditional British explanation for the shift to Empire markets is the rise of continental and United States tariffs after the brief period of freer trade from the repeal of the Corn Laws or perhaps from the treaty of 1860 to the Bismarck tariff of 1879 in Germany. But this explanation is weak on timing. As tables 3 and 4 show, the decline in the share of exports going to industrial countries had already proceeded some distance by 1885 and 1887-89. The German 1879 tariff on wheat and iron hurt British exports in the short run. Ultimately, however, the British had no chance of maintaining markets for iron and steel products in Europe or the United States both of which were superior in resources, with the Thomas process, and in the speed of technological change. Similar blows in the 1880's were dealt by the French tariff of 1882 which affected woolens and the United States increase in duties in 1883 which hurt cotton textiles. But the real setback to freer trading occurred in the 1890's, with the McKinley tariff of 1891, the Méline tariff of 1892 in France and the Bülow tariff of 1902. The early peak of exporting to the Empire had been reached in 1885, and the trend had been reversed between then and the mid-1890's, largely as a consequence of the burst of lending to Argentina.

The tariffs hurt, but British reaction to them was one of resignation. The McKinley tariff hit hard at German exports of hosiery and French exports of lace to the United States. These industries reduced costs and held on to the market. The competing British exports dropped out.⁸ A story of American success in an infant industry, and British failure, is found in tinplate. Here exports to the United States had risen from 87,000 tons in 1872 to 325,000 tons in 1891, as the American housewife began to make use of the tin can in food. The McKinley tariff raised the tariff from 1 cent a pound to 2.2 cents, equal to 70 percent ad valorem. Under this stimulus, production in the United States soared from 1,100 tons in 1891 to 361,000 in 1899. Imports fell away to 64,000 tons. But the success of the American firms was so great that the tariff was lowered to 1.2 cents already by 1894. The British diverted their tinplate elsewhere, to Australia and India, using the same methods of production which had been in use for 200 years, and which had in no way been altered in the 150-times expansion of production over the 19th century.⁹

Moreover, as Saul remarks, the fact of protection cannot be blamed, since British exporters lost out to European and American competition in neutral markets. This was especially true in the new products appearing in world markets: Electrical equipment, automobiles, chemicals, and even agricultural machinery, wire, fencing. It retained leadership in traditional lines—textiles, apparel, shoes, bar iron, galvanized iron, jewelry—and dominated the market for one new product, the bicycle. But in order to be sold these traditional goods had to be redirected to less developed markets. In some instances it proved necessary to use the political power of the government to force colonies to rescind protective measures which would have adversely affected the British exporter.¹⁰

All the while, British exports as a whole grew. The rate of growth was slower from 1873 to 1913 than it had been from 1846 to 1873, and some economists have used this fact to explain the decline in the rate of British economic growth as a whole. It seems more reasonable, however, to regard the ability of the British economy to sell standardized goods to protected markets in the Empire as enabling it to evade the necessity for directly facing the problem of technological slowdown.

The point is underscored in the contrast between British policy in the 1930's, when selling in protected markets was consciously adopted as a policy under the Ottawa agreements, and the post-World War II period. Since World War II national policy has been directed to the modernization of the steel industry, the consolidation of textiles, and the development of competitive capacity in machinery, consumers durables, chemicals, and so on. Britain no longer sets much store by Commonwealth preferences extended to her, but is interested in joining the highly competitive European Common Market as a means of getting access to rapidly growing demand and stimulating technological change through the competition of imports. Commonwealth preference remains an issue in the negotiations with the Common

⁸ S. B. Saul, "Studies in British Overseas Trade, 1870-1914," Liverpool, Liverpool University Press, 1960, p. 160.

⁹ The facts on tinplate in this paragraph are taken from W. E. Minchenton, "The British Tinplate Industry," Oxford, Clarendon Press, 1957.

¹⁰ See Arthur Redford, "Manchester Merchants and Foreign Trade, 1850-1939," Manchester, Manchester University Press, 1956.

Market less because the Commonwealth is reluctant to give up positive preferences in the British import market than because of unwillingness to accept discrimination against the Commonwealth in favor of Europe, particularly in agricultural products. The necessity to be competitive, squarely faced by current British leadership, was evaded after 1875 by the possibility of expanding exports and diverting them.

FRENCH EXPORTS TO COLONIAL MARKETS

It is a well-known Marxist and Leninist doctrine that imperialism is a last stage of capitalism in which a falling rate of profit at home makes it necessary to lend capital and dispose of goods abroad. This is the Marxist explanation for the revived interest of the industrial countries in colonies in the 1870's and 1880's. Even where an "open door" policy prevails, and is more than nominal, trade follows the flag, and colonies provide the outlets which underconsumption at home requires.¹¹

Applied to France, this view can find support from the contemporary literature. Leroy-Beaulieu in 1870 in a book on colonies said its task was to expand exports. But apart from Leopold of Belgium who exploited the wealth of the Congo, the spirit behind European colonialism in the 1870's and 1880's was prestige, and prestige alone. Imperialism was born of nationalism, and remained nationalistic rather than economic until the depression of the 1930's. French exports to the colonies rose from 6.7 percent of total exports in 1882-86 to 10.9 percent in 1909-13. The colonies gave preferences to French goods, but half of the trade of the colonies in 1884 was with foreign countries, and by 1910 the French proportion had increased only to 57 percent. In the Méline tariff, colonial products were taxed along with foreign, and this was not changed until 1910 when the colonial party in France insisted that the preferences be reciprocal.¹²

Some groups did gain—Lorient, La Rochelle, Nantes, Bordeaux—which wanted expansion of the navy; the army with its pride in Algeria; the colonial functionaries. In industry, the primary gainer was cotton textiles which was unable to maintain its export markets in foreign countries after 1929 but managed to expand that in the colonies. But the proportions are small. In 1913 production amounted to 160,000 tons of cotton textiles, of which one-third was exported, divided equally between foreign countries and colonies. By 1927, production was 180,000 tons, of which almost 80,000 or 44 percent was exported, again divided equally between foreign countries and colonies. During the 1930's, exports to foreign countries fell away to 2,700 tons at the low in 1936, while the colonies kept on buying at the 35,000 level. There was no recovery in foreign exports immediately after the war, but exports to colonies grew still further and reached 54,000 tons, out of 206,000 tons produced in 1951.¹³

The subsequent decline of exports to the franc area to 30,000 thus has not interfered with a rationalization and expansion of the French cotton textiles industry. Total output has increased moderately with fewer spindles and many fewer workers. In 1959 foreign exports

¹¹ Maurice Dobb, *Political Economy and Capitalism*, London, Routledge, 1937, p. 243.

¹² See H. Brunshwig, "Mythes et réalités de l'impérialisme colonial française, 1871-1914," Paris, Colin, 1960.

¹³ Figures after 1920 are from the INSEE, "Annuaire Statistique de la France," op. cit., chapter XXII, tables IV and V, p. 155. Those for 1913 are from Jacques Rabell, "L'Industrie cotonnière française," Paris, Genin, 1955, p. 154.

started to pick up, reaching 11,000 tons or the highest level since 1931. A French commentator calls the oversea markets of the French zone of primordial importance, and insists on the need for preferences for national balance-of-payments reasons.¹⁴ It seems evident, however, from the figures for total output, now roughly 30 percent higher than 1929, and those for productivity (this output being produced by half the workers) that other aspects of the industry are far more important than the protected colonial market. It is significant, in fact, that the increase in productivity has been particularly rapid since about 1950, with production rising by one-tenth and worker inputs falling by one-third. This change was a necessary prelude to the French cotton textiles industry's willingness to join the Common Market, and was in turn reinforced by that step.

A broader picture of the French turn away from the French zone in exporting, despite the expenditures ancillary to the war in Algeria and the subsidies and development expenditures in the newly independent states, can be seen in table 6. This involves a change in classification of exports by commodity class after 1956 but the outline of the trade shifts is clear.

TABLE 6.—*French exports by classes, 1938, 1952, and 1959*

(In percent of total value)

	Food stuffs	Fuel	Raw ma- terials and semi- finished	Equip- ment	Finished goods, con- sumers' goods	Total	
1938:							
To foreign countries.....	9	0.15	40	6	17	74	
To the franc zone.....	5	.05	7	3	12	26	
Total.....	14	.2	47	9	29	100	
1952:							
To foreign countries.....	5	6	30	8	9	58	
To the franc zone.....	6	2	10	7	17	42	
Total.....	11	8	40	15	26	100	
	Food drink, tobacco	Fuel and lubri- cants	Raw ma- terials	Manu- factured goods, semi- finished	Equip- ment	Con- sumers goods	Total
1959:							
To foreign countries.....	6	3	7	24	10	16	63
To the franc zone.....	5	2	1	6	6	12	32
Total.....	11	5	8	30	16	28	100

Note.—Totals do not necessarily add owing to rounding.

Source: INSEE, *Annuaire statistique de la France, Rétrospectif, 1961, op. cit.*, Chapter XXXI, table III, p. 200.

The proportion of sales to the protected franc zone rose sharply between 1938 and 1952 when the French economy was experiencing difficulties in recovery. With growth taking hold, and monetary stability restored, the share of exports going to the franc zone declined, in nearly every class but especially in consumers goods. The absolute

¹⁴ See Francois Capronnier, "La Crise de l'industrie cotonnière française," Paris, Génin, 1959, p. 403.

value and volume of exports to the franc zone rose, particularly because of government operations, but vigorous French industry expanded its exports much more in the competitive markets which were growing more rapidly.

Protected markets serve then to evade the necessity to face the critical decisions for growth, as in the British experience, or as a refuge for the economy momentarily incapable of growing, as in the French. This lesson seems to have been lost on the French, however, in seeking a preferred position in the European Common Market for the French community, made up of former French colonies in Africa. Despite vigorous objection from the United States in behalf of the tropical areas left out, the French negotiators insisted in the Treaty of Rome on provision for including the existing or recently liberated colonies in Africa in the Common Market for exports, although permitting them to maintain tariff barriers against Common Market exports. What is new is not the preference in France, but its extension to the rest of the Common Market and especially to the rich German market. The danger is that colonial producers in Africa concentrate their attention less on reducing costs in coffee, cocoa, bananas, sisal, and more on getting a preferred position in the European market. This will have adverse effects on their competitors in the rest of Africa and in Latin America.

The danger may be reduced in a number of ways. The terms on which the British join the Common Market may include their colonies, present or some or all former colonies as determined on some basis. This will reduce the amount of discrimination in Africa, though it will increase it for Latin American countries by the inclusion of Britain in the protected market. Beyond this, the U.S. administration apparently hopes to induce the European Economic Community to reduce its common external tariff on tropical foodstuffs, and has included a provision in the trade expansion bill which would enable the United States to reduce duties on this range of products to zero.

Despite the progress shown in table 6, France may be able to maintain a considerable share of the market in the French community, plus the newly independent Algeria, by virtue of its large-scale subsidies to these countries. Taking into account these subsidies used to make up the budget deficits of many of the new governments of the community, French foreign aid is given on the largest scale of any donor country in relation to its income. There is a question whether political subsidies should be counted as economic aid, just as there is for other forms of aid, like surplus food from the United States under Public Law 480, which is intended to achieve certain national objectives beyond simply helping the development of foreign countries. Moreover, not all of it is spent in France, since part of the deficit of these new governments is incurred in operating embassies and consulates all over the world, and in domestic expenditure which spills over in other directions than as purchases from France. It is likely, again, that the French purpose in contributing the aid is much less to expand exports in protected markets than to achieve broad national purposes which may be summed up today, as in the 1870's and 1880's by the word "prestige."

In economic terms, however, prestige is expensive just as having resources drawn off into working for protected slow-growing mar-

kets subverts economic growth. German economic expansion has been aided by an absence of colonies, and in the early stages, by her lack of military commitments. Her prestige, moreover, has gained by reason of economic success. The Netherlands experienced a large book loss through the successful revolt of Indonesia; the release of energy for economic development in the Netherlands resulted in the quick makeup of the current income loss. Even the Belgian economy has been moving faster since the independence of the former Belgian Congo. It is difficult if not impossible to establish causal relations in this tangled area, but the evidence suggested that the French efforts to keep intimate political and economic relations with the French community in Africa may be costly in a budgetary sense and as well by diverting energy from the growing sectors of the economy.

THE U.S. BALANCE OF PAYMENTS AND PROTECTED MARKETS

The relevance of this economic history to the present position of the U.S. balance of payments should be evident. To the extent that this country succeeds in the short-run objective of correcting its basic deficit by means of increased exports in protected markets, its short-run gain may be achieved at the long-run cost of reducing the competitiveness of American industry and slowing down growth. In this field, as in so many questions of economics, short-run necessity clashes with the long-run health.

In the last months, the administration has taken a number of steps in the direction of increasing exports to protected markets: widening the coverage of tied loans through the Development Loan Fund and the AID program generally; and shifting military procurement from low-cost sources abroad to high-cost firms at home with a minimum of cost difference of 50 percent before buying in the cheaper foreign source. If to these new steps be added the subsidies on agricultural exports and the foreign aid in the form of surplus commodities under Public Law 480, a significant portion of our exports are or are in process of becoming high-cost exports to protected markets.

Exact measure of U.S. exports to protected markets is impossible. Various approximations are available, but none of them is accurate. Government-financed exports, for example, will exclude commercial exports which benefit from subsidies and include some goods which would have been bought without having been tied to aid. Nonetheless it is probable that the benefit to the U.S. balance of payments of reducing foreign aid would be limited since most of the reduction would be matched directly by parallel and immediate reductions in exports.

The Department of Commerce has recently provided balance-of-payments data which indicated that 9 percent of nonmilitary merchandise exports in 1960, and 11 percent in 1961 were directly financed by Government grants and capital.¹⁵ The figures are available only for the 2 years. Over a longer period of time, one can furnish a comparable idea by comparing all governmental assistance (apart from military exports furnished under grants) with total exports of goods and services. This is done in table 7. This table shows that total foreign aid as a percentage of exports of goods and services has de-

¹⁵ See Survey of Current Business, June 1962.

clined from more than one-third in 1949 to 16 percent in 1960 before rising to 18 percent in 1961.

TABLE 7.—U.S. exports of goods and services and foreign aid, by areas, selected years, 1949–61

[In percent]

	1949	1951	1953	1956	1957	1958	1959	1960	1961
(a) Exports of goods and services:									
Western Europe ¹	33.5	32.0	36.2	34.2	33.2	31.7	32.3	34.4	33.9
Eastern Europe ¹	1.2	1.5			3	.4	.4	.7	.7
Canada.....	16.1	16.7	19.2	20.2	18.2	18.8	19.8	17.7	17.3
Latin America.....	23.0	25.6	20.6	21.7	22.9	23.0	20.2	18.0	18.0
All other.....	25.5	27.2	23.5	23.6	25.0	25.4	25.3	28.1	29.5
International and unallocated ².....	.6	.5	.5	.4	.3	.4	1.2	1.0	1.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(b) Foreign aid: ³									
Western Europe ¹	78.5	70.8	69.7	50.4	44.2	36.5	36.3	29.8	21.8
Eastern Europe ¹	0	2.5	.1	.1	4	.6	.3	.2	.1
Canada.....	0	.1	0	0	0	0	0	0	.2
Latin America.....	1.9	4.5	6.9	5.4	9.5	15.4	12.6	11.0	20.4
All other.....	17.4	21.0	21.9	41.5	44.3	46.3	48.9	54.9	54.0
International and unallocated ²	2.1	1.1	1.4	2.6	1.7	1.1	1.8	4.0	3.3
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(c) Foreign aid as a percentage of exports of goods and services:									
Western Europe ¹	84.9	53.7	61.3	27.1	33.2	22.8	20.2	14.1	11.5
Eastern Europe ¹.....	.5	37.9	29.6	10.0	14.6	19.6	12.8	4.4	3.7
Canada.....	0	.1	.1	0	0	0	0	0	.2
Latin America.....	3.1	4.3	10.6	4.6	7.2	18.2	11.2	9.7	22.0
All other.....	21.8	22.0	29.6	32.8	30.8	36.0	34.9	31.6	32.8
International and unallocated ²	112.7	87.7	138.8	151.2	94.4	66.0	25.0	67.4	67.0
Total.....	36.7	24.4	31.9	18.5	17.3	19.8	18.2	16.1	17.8

¹ Through 1953, Western Europe consists of OEEC countries, Eastern Europe of all other European countries.

² Unallocated is included in "All other" through 1953.

³ Foreign aid defined as "military supplies and services transferred under grants, other grants, and Government long-term capital outflow."

NOTE.—Totals may not add exactly because of rounding.

Source: U.S. Department of Commerce, "United States Balance of Payments, 1958"; Survey of Current Business, June issues, 1960, 1961, 1962.

There is this important difference, however, between the position in 1948–52 and the present. During the European recovery program, Europe wanted the goods, and the aid financing was a necessary accompaniment. At the present time, on the other hand, Latin America and Asia want the financing, and are obliged to take goods under our tied-loan arrangements.

Table 7 also shows the breakdown of trade and aid and, also, aid as a percentage of trade by areas. The trade figures show that the share is growing faster in "Other," largely Asia and Africa, where it is supported by a high and rising percent of aid, and is being well maintained in Western Europe, despite a falling rate of aid. It is interesting that exports of goods and services to the protected U.S. markets of Canada and Latin America—protected in the same way that the Empire was prior to Empire preference, that is, by close mer-

cantile connections and large-scale private finance¹⁶—are declining in the case of Canada, and only stable in Latin America despite a rapid run-up in the proportion of aid. On this showing, tie-in exports has been effective in Asia, defensively required in Latin America, but dispensable in Europe.

Part of the increase in exports to Europe in 1960 and 1961 was fortuitous, the consequence of the correction of earlier mistakes in cotton pricing, the conversion of manufacturing from propeller to jet aircraft, and alleged "dumping" in chemicals. More was due to the European boom (the increase in iron and steel mill products and copper and copper base alloys). But some considerable amount was represented by a rise in sales of industrial machinery. This may have reflected in part the purchases of American corporations undertaking direct investment in Europe, a U.S.-financed export which might be regarded as protected. But American corporations would bring from the United States only those machines which could not be obtained more cheaply in Europe. It is therefore proper to regard them, despite their financing, and U.S. competitive sales to European customers as nonprotected exports. These exports to a growing and competitive market contribute to U.S. growth more than exports to the sluggish, protected markets of the dollar area, or exports to other markets generated by tied loans, buy-American provisions, or other forms of subsidy.

It will be recalled that in 1949 the Indian Government tried to use some aid from the United States to buy steam locomotives from Japan, where they were cheap compared to those from the United States. There was an uproar at this ungrateful way of dealing with the generosity of the United States, in the Congress and out, and the administration finally felt itself obliged to make additional loans to India for the sake of buying high-priced American steam locomotives. It seems evident in retrospect that the resources invested in this industry should have been encouraged to transfer to other more productive uses. The same can be said for tied loans to Latin America and Asia more generally. If these are to be spent on simple products appropriate to an earlier stage of economic development, it slows down U.S. growth to insist that the goods be furnished here. Both the short-run benefit to the balance of payments, for a given amount of aid, and the short-run benefit to aid, for a given position in the basic balance of payments, take place at the cost of longrun growth. Longrun growth calls for the United States to furnish the finance, for the goods to be bought in Europe or Japan, and for the United States to sell other goods to Europe and Japan, where this country has a comparative advantage and where an expansion of sales will contribute to growth. Multi-lateral trade is efficient, compared to bilateral trade, in the same way that specialization and exchange through markets are efficient compared to barter.

¹⁶ S. Burenstam Linder in "An Essay on Trade and Transformation" (New York, John Wiley & Sons, 1961) presents a table (opposite p. 116) of figures of imports per \$1,000 of gross national product per capita from various countries. The top 4 customers of the United States, on this basis, are Mexico with \$160 (16 percent of GNP), Canada \$132, Chile \$121, and Israel \$110. Argentina and Brazil in Latin America at \$34 each, come after Netherlands with \$58, which is the next highest after Israel, the Union of South Africa (\$48) and Japan (\$39). But the table lists only 32 countries and omits the other countries of northern Latin America which form part of the dollar area, and the Philippines.

There is nothing new in all this. Economists have been repeating their strictures against tied loans and protection since time immemorial. And few have improved on Adam Smith :

The restraints upon the wine trade in Great Britain, besides, do not so much seem calculated to hinder the people from going, if I may say so, to the alehouse, as from going where they can buy the best and cheapest liquor. They favor the wine trade of Portugal, and discourage that of France. The Portuguese, it is said, are better customers for our manufacturers than the French, and should therefore be encouraged in preference to them. As they give us their custom, it is pretended, we should give them ours. The sneaking arts of underling tradesmen are thus erected into political maxims for the conduct of a great empire ; for it is the most underling tradesmen only who make it a rule to employ chiefly their own customers. A great trader purchases his goods always where they are cheapest and best, without regard to any little interest of this kind.—THE WEALTH OF NATIONS (Book IV, pt. II).



87th Congress }
2d Session }

JOINT COMMITTEE PRINT

**FACTORS AFFECTING THE UNITED STATES
BALANCE OF PAYMENTS**

MATERIALS PREPARED FOR THE
SUBCOMMITTEE ON INTERNATIONAL
EXCHANGE AND PAYMENTS
OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

Part 3
**THE INTERNATIONAL MONETARY SYSTEM:
DEFECTS AND REMEDIES**



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LETTERS OF TRANSMITTAL

NOVEMBER 20, 1962.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress are three in a series of papers prepared by outside consultants for the consideration of our Subcommittee on International Exchange and Payments in connection with its study of "Factors Affecting the United States Balance of Payments."

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

NOVEMBER 19, 1962.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith are three in a series of study papers assembled by the Subcommittee on International Exchange and Payments on the general subject of "Factors Affecting the United States Balance of Payments."

The papers in the series, prepared by experts from Government, the universities and research organizations, are a part of the subcommittee's broadly based study of the need and means for reducing the deficit in the U.S. balance of payments, as well as appraising the opportunities for international trade and payments cooperation and the usefulness of a policy of relatively high domestic interest rates in stemming the recent dollar outflow.

The materials are presented in advance of the subcommittee's hearings in accordance with the Joint Economic Committee practice of providing members of the committee and the participating panelist an opportunity to examine thoroughly the analyses in preparation for discussions at public hearings.

Prof. Don Humphrey of the Fletcher School of Law and Diplomacy, Tufts University, has been acting as a consultant to the subcommittee and has had major staff responsibility in arranging for these expert study papers and in planning the subcommittee's study.

Sincerely,

HENRY S. REUSS,
*Chairman, Subcommittee on International Exchange and
Payments.*

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A PROPOSAL FOR FINANCIAL INTEGRATION
IN THE ATLANTIC COMMUNITY

By
JAMES C. INGRAM
UNIVERSITY OF NORTH CAROLINA

A PROPOSAL FOR FINANCIAL INTEGRATION IN THE ATLANTIC COMMUNITY¹

I. INTRODUCTION

For most of the 16 years during which the International Monetary Fund has been in operation, economists widely believed that European economic recovery and the restoration of currency convertibility would strengthen and stabilize the international monetary system. This belief was rudely shattered by the series of large U.S. balance-of-payments deficits beginning in 1958, the very year in which many European countries restored external convertibility. The U.S. deficits have proved unexpectedly resistant to treatment; their persistence has created doubts about the value of the dollar, causing substantial outflows of gold from the United States. The U.S. gold stock fell 28 percent between December 1957 and June 1962.² These events have revealed the vulnerability of an international monetary system that depends upon international reserves held largely in national currencies and that is anchored by the link between gold and the dollar. It has become evident that a flight of funds from the dollar could force the United States to suspend gold sales, devalue the dollar, impose exchange controls, or adopt some other unpalatable alternative.

Except for additions to the world supply of monetary gold, increases in international reserves must take the form of balances in national currencies, of which the dollar and the pound sterling are the most important. Since 1945 the dollar has been the principal key currency used as a reserve. As liquid dollar balances held by foreigners (both official and private) have increased, the ability of the United States to supply gold on demand at the fixed price of \$35 per ounce has become questionable. Such doubts about the dollar link to gold have been especially widespread since the large U.S. payments deficit began in 1958. The United States is in the position of a bank whose basic condition is sound, but whose liquidity is constantly threatened by the possibility of a run by the depositors. With no way to convert financial and other assets into liquid form suitable for meeting potential demands by external (or internal) holders of short-term dollars, the United States finds herself in a precarious position.

Ironically enough, a shift from deficit to surplus in the U.S. balance of payments would probably not be welcomed with much enthusiasm by the world economy. Such a surplus would reduce the total

¹ I wish to express my appreciation to the North Carolina Business Foundation for support during the preparation of this paper, and to numerous colleagues at the University of North Carolina and elsewhere who discussed these issues and read early drafts of this paper. I am especially indebted to Mr. David S. Ball, who has helped with every aspect of this paper. His comments and his editorial suggestions have clarified issues and sharpened discussion throughout this paper. For errors that remain, I am of course responsible.

² Federal Reserve Bulletin, July 1962, p. 844.

stock of international reserves, either by pulling gold back into the U.S. Treasury or by reducing the dollar assets of other nations, and cries of reserve inadequacy or even dollar shortage would soon be heard. Perhaps the ideal arrangement is for the United States to have a "small" deficit, as in the period 1950 to 1957, just large enough to expand dollar reserves of the rest of the world by modest amounts but not large enough to arouse fears of inability to maintain the current link to gold. But even this arrangement is unstable, because as the ratio of gold to dollar liabilities (using whatever definition is deemed relevant) declines, the gold pledge becomes less credible and the danger of a crisis of confidence becomes greater.

Equilibrium in the international monetary system thus appears to be another knife edge case. There is a pressing need for institutional reforms that will provide some room for flexibility, adjustment, and maneuverability. A deficit country is now extremely vulnerable to a crisis of confidence, and the system provides no real safeguards against such a crisis or its effects. No country can possess enough international reserves, as conventionally defined, to protect it against a real loss of confidence in its ability to maintain the international value of its currency. Conventional monetary measures may act too slowly, if applied after the crisis has struck. The only protection—an imperfect one—is exchange control, but the United States has no wish to use exchange controls. We must therefore be especially careful to prevent the development of any crisis of confidence. Hawtrey has emphasized the essence of the problem in the following passage: ³

The kind of capital movement which endangers the reserves is that which is caused by distrust of the money unit: people want to convert their cash into assets abroad, *not because the foreign assets are inherently attractive* but because they fear a depreciation of their own money. Such a movement may attain torrent strength in a few days, and it may be that no ordinary measures of restraint, working through the credit system, will save the reserves from exhaustion. When reserves can no longer be drawn on to support the foreign exchange market in face of panic, exchange control is all that remains to avert complete collapse. Thus exchange control may be necessary even though the current balance of payments is favorable, but the control is only needed so long as the discredit of the money lasts. [*Italic added.*]

The potential dangers in the present system have been dramatized most vividly by Prof. Robert Triffin. His proposals for reform essentially involve a shift from dependence on national currencies for international reserves to the use of claims on an expanded International Monetary Fund which would then perform some of the functions of an international central bank. The volume of international reserves would be subject to deliberate control by the new I.M.F. Triffin's diagnosis of the dangers in the present system has been generally accepted, but his proposals for reform have remained controversial. We shall not discuss his proposals in detail in the present paper.

Persistent U.S. deficits not only threaten to undermine the international monetary system, they also conflict and interfere with other policy objectives of the United States. Thus the Government has been forced to modify its efforts to combat recession and to achieve a satisfactory level of employment and output by the fear of a larger deficit and a renewed flight from the dollar. Programs of military and economic aid and even longstanding principles of commercial policy

³ Sir Ralph Hawtrey, "The Pound at Home and Abroad" (London: Longmans, 1961), p. 101.

have been called into question as a result of the payments deficits. Most economists have urged that the Nation's foreign economic policies and military programs should not be adjusted to fit balance-of-payments requirements, but policymakers have tended more and more to consider the balance-of-payments effect of proposed actions, and in some cases economically unsound measures have been used in an effort to reduce payments to foreigners.

The purpose of this paper is to examine the effects on the international monetary system of a greater degree of integration of financial markets in the Atlantic community. The principal thesis of this paper is that a vigorous movement toward financial integration would greatly diminish the scope and severity of national balance-of-payments crises, largely because financial integration could release capital movements, especially long term, and permit them to perform an equilibrating role. Such financial integration, it will be argued, could substantially relieve the pressures on "international reserves," as traditionally conceived, by engaging a substantial portion of the entire stock of a nation's financial claims in the process of international payments adjustment.

By "financial integration" we mean freedom for individuals, firms, banks, and government agencies to trade in securities and other financial claims across international boundaries. This means that all legal barriers to repatriation of principal or to payment of current income would be removed. We specifically intend these freedoms to apply to domestic as well as to external residents. In order to achieve a sufficient degree of financial integration, it will be necessary to remove *de facto* as well as *de jure* restrictions on financial transactions—more about this later.

We should emphasize that financial integration as used in this paper does not mean the adoption of a common currency and the creation of supranational monetary and fiscal authorities. Removal of restriction on financial transactions will, as we shall see, considerably limit the scope for independent national authorities, but a useful degree of financial integration need not await the formation of a world government complete with international central bank and worldwide fiscal powers.⁴ (This matter will be discussed at greater length in a later section.)

Our proposal for financial integration is meant to apply to the nations of the Atlantic Community, not to the whole of the free world. Indeed, it may be that some nations in the Atlantic Community cannot be included, for institutional or other reasons. In general, a nation will be better suited for inclusion the more highly developed its capital markets, the more widespread its use of an exchange economy, the more closely its economy is linked to the world economy, and the more fully its population utilizes pecuniary calculus in making decisions. The members of the Organization for Economic Cooperation and Development might form an appropriate nucleus for a movement toward financial integration, although a few of these nations may not seem suitable (such as Greece and Turkey).

The reasons for concentrating on nations in the Atlantic Community are implied by the criteria for inclusion mentioned above. In other

⁴ Some authors have assumed that a useful degree of financial integration inevitably implies world government, e.g., J. E. Meade, "The Balance of Payments Problems of a European Free-Trade Area," *Economic Journal*, September 1957.

words, the principal reason is that a prompt, sensitive, broadly based response in the market for financial securities and claims will most likely be found in an advanced economy with a highly developed set of financial institutions, including commercial banks, insurance companies, savings associations of various kinds, and pension funds; an economy with a variegated structure of financial assets, such as bonds of many maturities, treasury bills, acceptances, short-term commercial paper, and deposits (demand and time); and with a wealth of experience and financial know-how in handling such claims. These conditions are of course not uniformly met in the nations of the Atlantic Community, but taking these nations as a group they seem much better prepared for financial integration than do nations in the rest of the world, especially most of those in Asia, Africa, and Latin America. Although financial institutions and practices are different from country to country in the Atlantic Community, there are some broad similarities.

Another reason for concentrating on the Atlantic Community is that it is within this community that the particular problem of balance-of-payments adjustment described above is found. That is, it is European nations that are accumulating dollar claims and arousing fears about the adequacy of the U.S. gold stock by converting dollars into gold. The reserves of underdeveloped nations in Asia, Africa, and Latin America have not risen appreciably in the last 10 years, nor have their holdings of gold increased. Table I contains some figures to illustrate this point. Furthermore, it seems likely that underdeveloped nations will not be in a position to accumulate large amounts of reserves in the near future. The pressures of their domestic developmental programs will require them to spend all available external funds on current account purchases and debt service. There are important balance-of-payments problems in the relations between advanced and underdeveloped countries, but this paper is concerned with a different kind of problem—one that seems to be found primarily within the Atlantic Community. (Alternatively, we may argue from expediency that financial integration in the sense used here is not feasible for underdeveloped nations because of the underdeveloped state of their financial markets and structure of financial claims.)

TABLE I.—*Official reserves of gold and foreign exchange*

[Billions of U.S. dollars]

Region	1951			1953			1962 (first quarter)		
	Gold	For- eign ex- change	Total	Gold	For- eign ex- change	Total	Gold	For- eign ex- change	Total
Atlantic Community (ex- cept United States) ¹	7.4	4.2	11.6	8.7	5.6	14.3	18.6	9.8	28.4
Rest of world (except United States) ²	3.7	10.9	14.6	3.6	11.5	15.1	3.7	11.4	15.1
United States.....	22.9	.....	22.9	22.1	.....	22.1	16.6	.2	16.8
Total.....	34.0	15.1	49.1	34.4	17.1	51.5	38.9	21.4	60.3

¹ The Atlantic Community here includes all members of OECD, except the United States.

² The "Rest of the world" here includes all nations outside the Soviet bloc except the members of OECD.

Source: "International Financial Statistics," International Monetary Fund, July 1962, pp. 22-25.

The case for financial integration may be presented most succinctly by analogy with the process through which regional payments adjustments are accomplished within the U.S. common market. There we find a high degree of financial integration, complete freedom of capital movements, and scarcely any concern about the process of adjustment in a particular region's balance of payments or about the level of its external reserves. At this point the reader may object that in the U.S. "common market" we do have a common currency, supraregional monetary and fiscal authorities, a supraregional central bank, and a supraregional level of prices in some sense. We shall argue, however, that it is primarily the degree of financial integration in the United States that accounts for the easy adjustment of regional payments, not the operations of Federal monetary and fiscal authorities.

For example, the Federal Reserve System does very little to supply reserves to banks of a region with an adverse payments balance. Member banks make little use of the rediscounting privilege, and the privilege itself is designed to supply funds for only a few days or weeks. Reserves required of member banks are not available to cover adverse clearing balances and are not so used in practice; they are primarily a control device.⁵ Indeed, it seems arguable that the disappearance of the regional payments pressures that existed under the national banking system was not a result of the creation of the Federal Reserve System, as commonly believed, but was rather a result of important changes in the degree of financial integration within the United States in the first two decades of this century, and particularly a result of the development of a large body of easily marketable financial claims. It may be largely coincidental that the Federal Reserve System was created during this period and has thus been given credit for sharply diminishing the severity of regional payments crises. As for the common price level, we shall argue that the vigorous movement toward free trade in commodities is producing an international price level in *traded goods* that is already closely analogous to that found within the United States. At this stage, these remarks are merely suggestive; the nature of the argument will be further developed below.

The nature of our general case for financial integration may also be suggested by the argument that the two chief goals of foreign economic policy among Atlantic community nations,⁶ spot convertibility at fixed exchange rates and integration of *commodity* markets, are incompatible with the separation of national *financial* markets. Yet, the present international monetary system permits (even encourages) nations to attempt to isolate their financial markets and to pursue independent domestic financial policies. In this paper we shall assume that the two chief goals remain unchanged. That is, we shall assume—

1. That currency convertibility at fixed exchange rates is a constant policy objective; and
2. That the vigorous drives for elimination of quantitative restrictions and for reduction of tariffs on commodity trade will continue.

⁵ However, as demand deposits fall in a region, some bank reserves are freed for external payment.

⁶ Hereafter this paper will refer to the Atlantic community except where noted.

The effect of commodity market integration is to create common prices for traded goods, allowing for transport costs and remaining duties. Thus, the price systems of the several nations are linked together in much the same way as are prices in various States and regions of the United States. The effect of spot convertibility at fixed exchange rates is to link together *part* of the money markets of the several nations, and thus to create what is approximately equivalent to a common currency. The effect of currency convertibility must be qualified, however, to allow for the facts that in some countries it applies only to external residents and to transactions on current account, that deviations of 1 percent around the official par exchange rate are permitted, and that the risk of further exchange-rate changes must always be considered by the market.

Although they have forged these two links, between their commodity markets and between their currencies, nations have also attempted to separate their financial markets for medium- and long-term securities and claims, and they have continued to pursue independent *national* monetary policies. But financial claims of certain types have characteristics, such as low transport cost, ease of identification, durability, and standardization, which strongly tend to produce a common price for claims of similar maturity, quality, and nominal interest rate. This tendency toward a common price is strengthened by opportunities to shift from such claims to spot money (or vice versa), or to and from commodities, in each separate market. All such tendencies have had to be checked by nations bent on isolating their financial markets in order to pursue independent monetary policies. The methods used to separate financial markets will be discussed in section II; here we shall epitomize them as exchange control on capital movements.

The existence of exchange controls on capital movements certainly hampers freedom of action and restrains the flow of securities and claims across national boundaries. Such controls have enabled nations to maintain yield patterns in the domestic financial market sharply different from those in other nations. Nevertheless, our argument is that this apparent success is misleading, and that in reality steady pressure in the financial markets against the control barriers results in a sufficient seepage of international capital movements to jeopardize national reserves of gold and foreign exchange—reserves which are in any case not supposed to be used to cover such capital movements. In short, we argue that a nation's attempts to isolate its financial market may deprive it of benefits that accompany the free flow of capital, while at the same time imperfect exchange controls may allow more or less illicit capital movements to threaten an exchange reserve that was never intended to deal with capital movements.

In a more positive vein, in section III we propose to examine some implications for international payments adjustments of completely free capital movements for domestic as well as external residents, coupled with completely rigid exchange rates. The objective is to achieve, through such financial integration, a situation in which a crisis of confidence is unlikely to strike suddenly at any one nation's money, and in which any loss of confidence that may appear will not have its impact concentrated upon a slender reserve of gold and for-

ign exchange but will be diffused over the whole structure of financial assets, domestic and foreign.

In section II we shall describe some of the ways used to separate national financial markets and some of the consequences of such separation.

II. SEPARATION OF FINANCIAL MARKETS

A considerable degree of financial integration in the Atlantic community had been achieved by 1914, but the events of the interwar period led nations to desire a system that would permit them to pursue autonomous domestic policies. Britain's experience in the 1920's had left bitter memories; the requirements of external balance had forced her to tolerate deflationary financial policies and high rates of unemployment. Throughout the chaotic 1930's nations sought to shield their economies from disturbing influences originating in the outside world. Consequently, the negotiators at Bretton Woods were determined to construct a system that would encourage international monetary cooperation, yet still permit each member nation to fix its own domestic policies. Several provisions of the International Monetary Fund Charter reflect this purpose.

1. Exchange controls on capital movements are authorized as a permanent feature of national regulations. Such controls were meant to be used to prevent transactions in securities and financial claims from undermining a separate national monetary climate.

2. It is specifically provided that resources of the International Monetary Fund are not to be made available to finance deficits arising from capital flight. The implication is that a nation should use exchange controls in such cases.

3. Provision of an orderly procedure for changing the par value of a nation's currency also tends to separate financial markets, for it forces the market to evaluate the probability of such a change and therefore to regard foreign securities as sharply different from domestic securities. Transactions in financial claims are inhibited by uncertainty about the exchange rate, even if exchange controls are not in force.

4. Autonomy of the member nation in matters of domestic policy is affirmed in the charter. It is specifically provided that the Fund cannot compel a member to alter domestic policies (although the Fund can decline to provide resources beyond the gold tranche).

None of these provisions has turned out as expected. Effective control of capital movements has proven to be extremely difficult unless all other transactions are also controlled. Even the use of exchange controls has not shielded the domestic economy from outside influences. The International Monetary Fund has not been able in practice to identify deficits arising from capital flight, and it has sometimes seemed unwise to deny the use of Fund resources when capital flight was suspected. Changes in exchange rates have been rare, partly because rate changes are regarded as drastic steps, greatly disturbing to financial markets, and partly because of an almost instinctive hostility to rate changes in banking, business, and governmental circles.

The chief architects of the International Monetary Fund doubtless *intended* to create a system in which national financial markets would

be separated from each other. Keynes himself had long favored policies designed to effect this separation. In an introductory summary of Keynes' work, Prof. Seymour Harris wrote that "one theme was dominant in Keynes' monetary theory and policy: independence from outside influences."⁷ To achieve this independence, Keynes proposed several devices in the 1920's and 1930's, including widened gold points, official intervention in forward markets, exchange control on capital movements, revenue tariffs and bounties on exports, and exchange depreciation. Arguing for ratification of the Bretton Woods agreements in 1945, Keynes specifically stated that under these agreements the United Kingdom would be able to fix her domestic policies without regard to external balance. A familiar passage from his speech to the House of Lords is worth repeating:⁸

We are determined that * * * the external value of sterling shall conform to its internal value as set by our own domestic policies, and not the other way round. Secondly, we intend to retain control of our domestic rate of interest, so that we can keep it as low as suits our own purposes, without interference from the ebb and flow of international capital movements or flights of hot money.

One wonders whether Keynes, usually so shrewd and perceptive in his judgments about practical affairs, really believed that Britain would be able to separate her domestic economy so completely from external influences. In any case, after bank rates of 7 percent, consul yields of 6.7 percent, and other extraordinary measures undertaken largely to control the postwar balance of payments, Keynes' declaration has proved to be a remarkably poor prediction.

By far the most important method used to isolate the domestic financial markets has been exchange control. It has been used to separate residents from nonresidents, to support quantitative and other restrictions on current-account transactions, to control transactions in financial claims, and for many other purposes. Since January 1, 1958, most European nations have made their currencies convertible for current-account transactions of nonresidents, and the trend has been toward the removal of controls on capital transactions of certain types. Some steps have been taken under the Treaty of Rome to remove restrictions among members of the European Economic Community. The first directive on liberalization of capital movements called for unconditional, irrevocable liberalization of direct investments and of capital movements involving shares listed on stock exchanges. Other capital movements, such as long-term loans and trading in unlisted securities, are to be liberalized on a conditional basis. (However, short-term capital movements are not liberalized by this directive.) Some countries, e.g. Germany, have voluntarily and unilaterally removed a substantial part of their machinery of controls on capital movements for both residents and nonresidents.⁹

We need not discuss in detail the present status of exchange controls and the specific techniques used. Our argument is that exchange control of capital movements cannot successfully separate national financial markets when currency convertibility is introduced and commodity markets are substantially integrated and freed from direct con-

⁷ Seymour E. Harris (ed.), *The New Economics*, p. 251.

⁸ Reprinted in Seymour E. Harris (ed.), *The New Economics*, p. 374.

⁹ For details see Claudio Segre, "Capital Movements in the European Economic Community," *Banco Nazionale del Lavoro Quarterly Review*, March 1962, and 13th Annual Report on Exchange Restrictions, International Monetary Fund, 1962.

trols. Exchange controls can prevent some transactions from taking place, but when inducements to evasion exist, evasions of the controls are so widespread that great pressure is put on the exchange market and on official reserves, thus forcing authorities to modify the attempted separation of the national financial market. To be successful, exchange control should be complete and absolute, applying to all transactions and supported by quantitative restrictions on trade. Patriotic motives to obedience, such as may be present in wartime emergencies, are conducive to its effectiveness. But in a peacetime market economy, when current-account transactions are free of controls and spot convertibility is allowed, exchange control of capital movements has an extremely uneven incidence. When powerful motives to evade have been present, traders have shown much ingenuity in seeking out loopholes and devising ways to circumvent regulations. Thus, exchange controls effectively restrict transactions by certain groups of transactors, such as banks, insurance companies, and other institutions and firms whose affairs are open to inspection or public scrutiny, and by the great mass of domestic residents who have neither knowledge nor opportunity to evade the regulations. As a result, persons and firms in a position to evade the regulations obtain a windfall profit conferred on them by the regulations. Our chief concern is not with their ill-gotten gains, but that their evasion of exchange control puts pressure on official exchange reserves and forces authorities to modify domestic economic policy, the protection of which was the initial justification for the exchange controls. Furthermore, transactions by the evaders of regulations usually frustrate official policy; the opportunities for profit lie in circumventing the conditions the authorities are trying to impose.

The inability of exchange controls exclusively on capital movements to accomplish their true objectives may now be generally accepted. In any case, we shall not offer detailed proof in this paper. Dr. Arthur I. Bloomfield, in his monograph "Speculative and Flight Movements of Capital in Postwar International Finance,"¹⁰ describes many techniques for evading controls and comments on the extent of evasion. Even in the late 1940's and early 1950's, when comprehensive controls were still in force, including consumer-goods rationing and strict surrender requirements, Dr. Bloomfield found evasion to be substantial. He states that "it is evident * * * that a significant part of the foreign aid of the U.S. Government has in effect gone to finance hot money movements from the recipient countries to the United States and elsewhere."¹¹ Recent testimony before a House-Senate subcommittee contained an estimate that capital exports from Latin America, where strict exchange controls remain on the books, may have reached a cumulative total of \$15-\$20 billion in recent years.

An example of the way in which evasion of regulations may force authorities to give up the separation of markets is furnished by Britain's experience with transferable-account sterling. In this case, regulations sought to distinguish transferable sterling (convertible only within the sterling area) from American-account sterling (freely convertible at the dollar exchange rate). Transferable sterling fre-

¹⁰ Princeton Studies in International Finance, No. 3, Princeton, 1954.

¹¹ *Ibid.*, p. 59. Bloomfield cites Michael Hoffman's estimate that capital flight from Western Europe had exceeded U.S. aid, then over \$25 billion, but Bloomfield does not himself accept this estimate (p. 59, note 87).

quently sold at a considerable discount. Because of imperfect control of current-account transactions and physical shipments of goods, it then became profitable to engage in commodity arbitrage. Goods paid for with transferable sterling were shunted to dollar areas and sold for dollars. Such practices obviously reduced official receipts of dollars from regular exports to the dollar area, and authorities were forced to support the rate for transferable sterling, thus ending the attempted separation. As Brian Tew has said, "shunting could not in practice be prevented by controls; it could only be discouraged by making it unprofitable."¹² The experience with security sterling was similar.

Our argument is that efforts of nations to maintain the *fiction* that national financial markets can be separated produce two serious disadvantages for international monetary order in the present system; namely that—

1. Existing exchange controls plus risk of exchange rate changes do effectively restrain a vast amount of potentially equilibrating capital movements; and
2. Direction and timing of evasions of capital movements are almost certain to be disequilibrating, with adverse effects concentrated on official exchange reserves.

When a currency is weak in the foreign exchange market, speculators are offered the familiar one-way bet, and exchange control is no protection against the outflow of capital that is induced. But when the separate domestic policy gives way, as it must, the existence of exchange controls and uncertainty about the exchange rate hamper an equilibrating inflow of capital. Thus the Nation obtains neither the supposed benefits of separate domestic policy and exchange controls nor the benefits of a sensitive response in capital movements.

Some of the most important barriers actually separating national financial markets were not deliberately designed to accomplish that purpose. Although the United States has long opposed explicit exchange controls as a matter of principle, *de facto* restrictions are of considerable importance in limiting international financial transactions by U.S. individuals and firms. We shall comment on their extent in a brief digression.

We should emphasize that under financial integration capital movements may normally be expected to be *equilibrating*. This point needs emphasis because people have grown accustomed to thinking of portfolio capital movements as a disturbing element in the world economy; namely, as capital flight. A pegged exchange rate system with separated financial markets does indeed tend to produce disequilibrating portfolio capital movements. Speculators are constantly evaluating the probability of an exchange-rate change, and they will seek to escape from a weak currency.

Under financial integration, however, the chance of exchange-rate change is supposed to be completely eliminated. If the market really accepts that, fractional changes in interest rates should evoke capital movements that will be equilibrating in nature. For example, if a given nation expands government expenditures and runs a budget deficit, it must offer higher interest rates to persuade financial markets

¹² Brian Tew, "International Monetary Cooperation," 1945-60 (5th ed., London, 1960), p. 147.

to take its bonds. An inflow of capital will be attracted to cover the increased imports of goods that may accompany the budget deficit. The capital movement is equilibrating.

DE FACTO EXCHANGE CONTROLS IN THE UNITED STATES

Even if exchange controls were removed and capital movements formally freed, significant barriers to financial integration would persist in the form of habit, business custom, and portfolio regulations of supervisory authorities. Such regulations have domestic intent but international effect; they may impede international capital flows more effectively than do explicit exchange controls. Except for the recent prohibition on gold holding abroad by U.S. residents and some restrictions aimed at the Soviet bloc, the United States has no explicit or de jure exchange controls. Nevertheless, foreign portfolio investment by U.S. firms and individuals is seriously hampered by a wide variety of de facto exchange controls. The enormous volume of investible funds, the recent wide divergencies in yields on comparable securities (even short-term securities with forward-exchange cover), and the relatively small amount of U.S. foreign portfolio investment, represent prima facie evidence of the existence and potency of de facto barriers.

De facto exchange controls may be as numerous and as effective in other nations of the Atlantic Community, but accurate comparisons are impossible in this unexplored area; the U.S. case will suffice for illustration. If the full benefits and advantages of financial integration as envisaged in this paper are to be attained, such de facto controls should be sought out and removed throughout the Atlantic Community.

Most broadly defined, de facto exchange controls include all obstacles to international financial transactions that serve to hinder "security convertibility," other than explicit (de jure) restrictions on such transactions. Thus, they include business custom, lack of knowledge, absence of adequate marketing facilities, portfolio regulations of supervisory authorities whose effect is to favor domestic over comparable foreign securities, absence of standard quality ratings and financial information, and even mercantilistic patriotism.

Viewed in this way, mild de facto exchange controls exist even among States and regions of the generally well-integrated United States. The history of State regulation of mutual savings banks, for example, abounds with rules favoring local investment and preferential tax rates on income from local loans and securities.¹³ Intangible property tax rates are commonly steeper on the securities of non-resident corporations, and the competition for particular locations of offices of savings and loan associations is keen not only because State regulatory agencies limit their number, but also because custom in many instances restricts their solicitation of mortgage loans (but not funds) to, say, a 50-mile radius.

Regional variations in interest rates on conventional mortgages are a reflection of imperfect financial integration and of the existence of de facto controls in the broadest sense. The financial history of the

¹³ W. C. Ballaine, "New England Mutual Savings Bank Laws as Interstate Barriers to the Flow of Capital," *American Economic Review*, March 1945.

United States contains many examples of institutional developments whose purpose is to erode the regional barriers. Such an example is provided by the plan to create a more efficient nationwide secondary market for conventional mortgages. It is recognized by the sponsors (commercial banks, insurance companies, savings and loan associations, and other financial institutions) that their plan will require amendment of many State and Federal laws as well as the development of standard mortgage forms and appraisal methods. The objective is to enable participants in the market to "deal in one generally recognized 'commodity' instead of many variations,"¹⁴ or in other words to transform locally acceptable claims into nationally acceptable claims.

When such obstacles to "security convertibility" exist within the United States, the existence of even more serious obstacles among nations may be unquestioned. However, we shall mention a few examples of de facto controls on foreign portfolio investment by U.S. corporations and financial institutions.

At the end of 1961, U.S. corporations and financial institutions held \$853 billion of financial assets.¹⁵ It is likely that the great bulk (perhaps as much as 98 percent) of this enormous sum was effectively limited to domestic claims and securities by various types of de facto exchange controls. Consider, for example, the case of life insurance companies, whose assets totaled \$120 billion at the end of 1960, including \$5 billion of foreign securities.¹⁶ State regulations differ widely, but we can conveniently use New York as an example because it is a "regulation-leadership State" whose rules are frequently emulated in other States.¹⁷ Outside of Canadian securities, until 1956 New York permitted a life company to hold obligations of foreign central governments and corporations only in countries in which the company operated, and then only up to one and one-half times the company's liabilities in that country. In 1956, an amendment authorized a company to invest in foreign securities, in addition to the above, up to 1 percent of its assets. Treatment of Canadian securities is more liberal; New York permits a life company to hold up to 10 percent of its assets in Canadian securities comparable to eligible domestic securities (until 1956, New York permitted investment in Dominion and provincial debt, but not in Canadian corporate debt).

A few States are more liberal than New York, but most are somewhat stricter on foreign security holdings. Occasionally, mortgage loans in Canada are authorized. However, in general we can safely state that life insurance companies do not own as many foreign securities as they are permitted to own under present regulations—they are certainly not pressing against the legal limits. Their foreign assets in 1960 (\$5 billion) represented 4.2 percent of total assets, and the majority of these were Canadian.

The commercial banking sector¹⁸ held \$267 billion of financial assets at the end of 1961. Holdings of foreign bonds were practically

¹⁴ New York Times, June 25, 1961, p. 38.

¹⁵ Federal Reserve Bulletin, April 1962, p. 481.

¹⁶ Life Insurance Fact Book, 1961, pp. 64-93.

¹⁷ The remainder of this paragraph is based largely on Lawrence D. Jones, Jr., "Portfolio Objectives, External Constraints, and the Postwar Investment Behavior of Life Insurance Companies," unpublished doctoral dissertation, Harvard University, 1959.

¹⁸ This is a consolidated account including monetary authorities (Federal Reserve System, Exchange Stabilization Fund, and Treasury currency accounts) and commercial banks. Federal Reserve Bulletin, April 1962, p. 481.

zero; short-term claims on foreigners reported by U.S. banks (principally acceptances, notes, and foreign currency balances) amounted to \$4.7 billion. The greater part of this amount is short-term trade credit denominated in dollars. Bank's holdings of long-term claims on foreigners, including international organizations, amount to \$2.0 billion in December 1961. It seems likely that bank claims on foreigners in terms of foreign currencies are very small, perhaps less than half a billion dollars.

Of \$129 billion of financial assets held by savings institutions (mutual savings banks, savings and loan associations, and credit unions) in December 1961, less than \$1 billion was in foreign assets. Mortgage loans of savings and loan associations are usually limited to the near vicinity of an association, and nearly always to the United States. Canadian bonds are permissible investments in six States; North Dakota permits investment in obligations of foreign governments, subject to approval of the State examiner; New York permits Philippine Government bonds to be held; and a few States permit World Bank bonds.¹⁹ Mutual savings banks are permitted by some States to hold Canadian bonds if they are payable in U.S. dollars; since most Canadian bonds are not so payable, they are effectively excluded.

Nonfinancial corporations held \$204 billion of financial assets in December 1961. While we have no exact estimate of their holdings of foreign assets, the presumption is that the amount is small, except perhaps in trade credits. In a study of the 250 largest nonfinancial corporations, Donald Jacobs found that foreign securities accounted for less than one-fourth of 1 percent of total holdings of marketable securities.²⁰ Jacobs reported that 147 of 209 responding corporations were restricted to U.S. Treasury issues or other domestic securities by charter, corporate policy, or by explicit action of the board of directors. A large part of the foreign assets held were foreign government issues which companies with foreign operations were required to hold by foreign statutes. In 1961, short-term claims on foreigners by "non-financial concerns" amounted to \$1.4 billion,²¹ most of which was trade credit.

Perhaps these comments are sufficient to show that the great bulk of the \$853 billion of financial assets owned by financial institutions and nonfinancial corporations are effectively locked into domestic claims, a fact that indicates considerable separation of domestic and foreign financial markets. The advocate of separate national financial policies cannot find much comfort in this discussion, however, because a shift of only 1 or 2 percent would put crushing pressure on official foreign exchange reserves under the present system. If convertibility of foreign currencies is extended further and doubts about the dollar spread, it is almost certain that ways will be found for at least such a small portion of these assets to circumvent *de facto* as well as *de jure* exchange controls. Then we are likely to hear officials speaking about the patriotic duty of U.S. firms and individuals not to buy foreign assets.

¹⁹ O. William Prather and Jean Harth, "Statutory Investment Powers of State Savings Associations," *Legal Bulletin*, U.S. Savings & Loan League, June 1956.

²⁰ Donald P. Jacobs, "The Marketable Security Portfolio of Non-financial Corporations: Investment Practices and Trends," *Journal of Finance*, September 1960.

²¹ Federal Reserve Bulletin, April 1962, p. 502.

The positive point we wish to make in this section is that *de facto* exchange controls are an important barrier to the flow of portfolio capital and, if financial integration is to be accepted as a goal of policy, removal of such controls will become an important aspect of policy implementation.

III. PAYMENTS MECHANISM UNDER FINANCIAL INTEGRATION

The objective of financial integration is to link the financial markets of Atlantic Community nations so closely together that securities of one nation will be freely bought and sold throughout the community, with their prices and yields being determined in competition with other securities of similar quality and maturity. Integration of financial markets would lead to a one-price system for securities of given type, just as integration of commodity markets leads to a one-price system for given commodities (after allowing for transport cost). Such financial integration would be a logical extension of the trend of policy in recent years, and it would be consistent with currency convertibility and removal of trade barriers. We shall argue that it would also reduce the pressure on official exchange reserves and substantially lessen the threat of instability in the international monetary system.

To accomplish the desired degree of financial integration, several measures must be taken by member nations. First, each nation must agree to a rigid link between its currency and the currencies of other members. This means rigidly fixed exchange rates, with *no* spread around the official par value and no provision for any change. That is, rates are to be *permanently* fixed, and nations must be pledged to that end in such a way that it is fully credible to the market. The purpose of this provision is partly to simplify the discussion, but primarily to remove the spread as a basis for separation of financial markets. Elimination of the spread also eliminates the forward exchange market, if the market has confidence in the fixed rates. Second, all legal restrictions on international payments must be removed, for residents as well as nonresidents, and for both current and capital transactions. Third, steps should be taken to remove the barriers of custom, lack of knowledge, *de facto* exchange controls, and other market imperfections which inhibit international financial transactions. Fourth, member nations should take what actions they can to make an efficient market in securities and claims. Encouragement of standard quality ratings, registration procedures, and methods for service and redemption of securities would be helpful. In some cases, national governments might insure or guarantee certain types of securities as in FHA-insured mortgages in the United States, thus extending their marketability.

The purpose of these last measures is to create a large body of what may be called internationally acceptable claims, to be contrasted with claims whose acceptability is limited to more narrowly localized markets where buyers have special knowledge of the borrower's circumstances. This distinction is analogous to the distinction between a U.S. Treasury bill or a New York State bond (nationally acceptable securities) and a trade acceptance or promissory note of a Wichita merchant. The former are readily marketable throughout the country; the latter are marketable in only a limited area and to a limited

clientele, even though the merchant's financial position may be impregnable. Under financial integration, large amounts of governmental and corporate securities would be readily marketable across national boundaries.

Given a large body of internationally acceptable claims, complete freedom of international payments, and rigid exchange rates, a one-price system for international claims would emerge. U.S. Treasury bonds of a given maturity would sell to yield almost exactly the same return as United Kingdom treasury bonds of a similar maturity.²² A single nation could no longer pursue a separate national monetary policy *in the sense* that its structure of interest rates could be made to differ *appreciably* from that of the rest of the community. While this may appear to be a substantial loss of national autonomy, we have argued above that imperfections in exchange control have already removed the autonomy allegedly provided by separated financial markets.

Financial integration as here proposed is in a sense an extension of the concept of convertibility to securities. Nations have accepted a large measure of currency convertibility for spot money, and they have gone far toward "commodity convertibility" through elimination of quantitative restrictions and reduction of tariffs. To complete the system and make it consistent, "security convertibility" is also needed.

After financial integration had existed for some time, we would expect a considerable intermingling of the assets of financial institutions in the several member nations. French insurance companies would hold sizable amounts of United States, Italian, and Danish securities; U.S. pension funds would hold British consuls and German bonds; and the assets of individuals, corporations, commercial banks, savings and loan associations, and other holders of financial assets in each nation would include securities and other claims on a variety of nations. Such an intermixture of financial assets would obviously take much time to develop. We shall not discuss the transitional period in detail because we wish to concentrate on the operation of the system after a substantial degree of financial integration has occurred. However, it should be pointed out that such intermixture of financial assets does not necessarily involve *net* capital movements from one member to another. Furthermore, the crucial matter is not the total amount of intermixture, but willingness to accept external securities at the margin.

Once financial integration were achieved, capital movements (or other transfers) of substantial size could be handled by the system without much strain on the balance of payments and without the pressure on conventional foreign-exchange reserves that we have come to expect. Small changes in the structure of yields on securities of any member would be sufficient to induce a large movement of capital. In short, the elasticity of foreign demand for any single member's stock of internationally acceptable financial claims would be extremely large, so that if a member's structure of asset prices fell marginally (a rise in yields) large purchases by foreigners would take place (an inflow of capital). Similarly, home demand for foreign securities would be highly elastic.

²² Some differences in yield would remain, just as they do among the bond issues of the several State governments in the United States.

We have argued that integration of financial markets will ease the pressures on conventional foreign-exchange reserves, and we must therefore discuss clearing arrangements in the foreign-exchange market. Here again we draw upon the analogy of regional adjustment within the United States. We propose that commercial banks in each member nation be made individually responsible for effecting a transfer of funds to any other place within the integrated community and into any other currency. Transfers would be made at par, and all banks would be required to accept checks drawn against them at par. To make such a system work, individual banks would have to arrange suitable correspondent accounts with banks in other financial centers. Small country banks in the United States would no doubt continue to rely on correspondent balances with banks in New York and Chicago, but large banks in financial centers would have to include internationally acceptable claims in their portfolios in order to meet any sudden demand for foreign exchange. Banks would of course be permitted to levy service charges, just as they do for domestic transactions within the United States. However, to emphasize the fixity of exchange rates, we propose that the principle of par clearance be clearly accepted.

This responsibility may seem at first glance too heavy a burden to place on commercial banks, but it is exactly what we require of individual commercial banks within the U.S. common market. A bank in Wichita accepts checks drawn on funds in any other region and makes collection; similarly it makes payment at par for checks drawn on it and deposited in any other region. In case of adverse clearing balances it arranges for cover, if necessary by selling nationally acceptable claims in established financial markets. This is all very simple and obvious, but the international analogy is not widely appreciated. It is sometimes believed, for example, that the Federal Reserve System plays an important role in regional clearings. Actually, except for nominal amounts of discounts and advances to member banks, the Federal Reserve System's most important role in regional payments adjustment is clerical. It may be that national central banks in the Atlantic Community might, under financial integration, usefully set up a similar clearing mechanism; otherwise, it seems likely that this mechanism would be provided by reciprocal correspondent balances of large commercial banks in major financial centers.

In the event of a change in demand for foreign exchange, e.g., if U.S. citizens began to consume more German goods, the dollar checks of U.S. residents would be deposited by German sellers in German banks, and U.S. banks would have adverse clearing balances vis-a-vis German banks. These adverse clearing balances could be covered in several ways. German banks could use their increased dollar balances to buy securities in the New York market, in which case assets and liabilities would rise in German banks, and remain unchanged in U.S. banks. Or, U.S. banks could sell internationally acceptable securities in Germany's nonbank capital market, in which case assets and liabilities would fall in U.S. banks, but remain unchanged in German banks. Or, transactions in third countries could provide the necessary cover. Many payments circuits and settlement variations are possible. This is essentially a short-run or medium-run adjustment, and may be followed by the more funda-

mental adjustments in relative prices and incomes of traditional analysis, but the latter would not operate through the leverage of international reserves (as conventionally defined) and fractional reserve ratios. Furthermore, the German economy (i.e., its individuals, banks, and financial institutions) may choose to hold more securities and claims, the U.S. economy less, for quite a long time, in which case no further adjustments would be necessary or forthcoming.

There are many complex aspects of this transaction and the adjustment process in general that will not be considered at this time; here we wish to emphasize the two points: (1) that it would be feasible to require commercial banks to take care of the transfer function, and (2) that links between the financial markets of member nations would mean that marginal changes in the yield structure of a nation could call forth sensitive, equilibrating flows of capital. Together, these points imply that the stock of official exchange reserves would no longer be crucially important. (What official ever considers the amount of the "external reserves" of Texas, for example? Indeed, what items should one include in estimating the amount of such reserves? No one is concerned about Texan reserves because the payments process works automatically through an integrated financial market.) Monetary authorities would not be called upon to enter the foreign-exchange market to support a given rate, and much of the present air of imminent crisis about capital flights would have no basis. Holders (both official and private, foreign and domestic) of a currency, say, dollars, could hold dollar balances or dollar securities, or they could switch to securities denominated in other currencies and obtain equivalent yields. If they switched out of dollars, the market process would provide for their places to be taken by other holders of dollars or dollar securities. If such holders did begin to doubt the fixed exchange value of the dollar, their sales of dollar securities would raise their yields and presumably induce other buyers to hold them. But as we have seen above, there is no protection against a real loss of confidence in the value of a monetary unit, and member nations undertaking financial integration must understand that they are fully committed to a structure of interest rates consistent with external balance.

Once that commitment were accepted by governments and made credible to the market, the world economy would obtain the benefit of relief from short-run payments crises. A nation would no longer need to regard its reserves of gold and foreign exchange as a thin line of defense against a great mass of liquid assets whose owners (domestic or foreign) might at any time attempt to flee into other currencies, thus swamping its slender reserves. Instead, financial assets of one country would be as attractive, at the margin, as those of another. Any change in circumstances in one country, perhaps leading to sales of its securities and claims by holders, could be accommodated by the resiliency of a vast integrated capital market. Small increases in interest yields of securities of a nation whose currency came under pressure would evoke an immediate, broadly based response because of the links provided by internationally acceptable claims and rigid exchange rates. Responsiveness of capital markets would shore up the international monetary system and provide a much surer basis for stability than any foreseeable accumulation of foreign-exchange reserves whose purpose is to make possible the perpetuation of separate

national monetary policies. After the largest imaginable expansion of official foreign-exchange reserves, they would still comprise but a tiny fraction of the total stock of liquid assets in a nation. Yet the maintenance of separate financial markets coupled with even the possibility of current depreciation would pose a constant threat of a flight from the currency that could swamp the reserves.

In the United States, for example, liquid assets held by the nonbank public reached \$440 billion in 1962,²³ and many types of highly liquid assets are not included in this figure. Financial assets of all kinds exceed \$2,000 billion. It is these totals, and not just the amount of liabilities to foreigners, that are relevant in considering the ability of the United States to withstand a real crisis of confidence—unless we wish to rely on ignorance or appeals to patriotism to keep this liquidity stable. The recent accumulation of foreign exchange by U.S. monetary authorities seems puny indeed beside these totals.

Under financial integration, such liquid assets become a source of strength rather than weakness in international payments balances. In case of dollar weakness, for example, marginal increases in their yields would make short-term U.S. securities attractive to foreigners, whose purchases of them would generate a supply of foreign exchange. A substantial part of the asset portfolios of Federal Reserve banks, commercial banks, and other financial institutions would similarly be placed in contact with financial markets in other countries and would become a source of strength for the dollar, and of stability for the system.

Parenthetically, we may note that our dissatisfaction with the Triffin plan is largely due to the fact that it does nothing to broaden the range of direct contact between various national financial markets, but seeks merely to convert official reserves from national currencies into claims on an expanded International Monetary Fund and to provide for systematic expansion of such official reserves. It seems to be implicit in Triffin's proposals that, once instability arising from shifts of official reserves from one currency to another is removed and reserve expansion provided for, nations may continue to pursue separate monetary policies and operate a movable peg exchange-rate system without serious strain. Our argument is that official reserves are a very small part of the problem, and that flights of private funds would continue to jeopardize the system.²⁴

(We should note that Triffin does comment briefly on monetary unification in the European Economic Community, but he sees this step as a far-off prospect even for that region. Furthermore he says that “* * * its desirability as well as its difficulties are essentially political rather than economic.”²⁵)

It is often argued that financial integration as envisaged in this paper would require the acceptance of supranational monetary and fiscal authorities, or even a full-fledged world government. Although we have already emphasized that a single nation would not be able to

²³ Federal Reserve Bulletin, July 1962, p. 796. Liquid assets are here defined as currency; demand deposits; time and savings deposits in commercial banks, mutual savings banks, and the Postal Savings System; shares in savings and loan associations; savings bonds; and U.S. securities maturing within 1 year.

²⁴ This question is more technical, but it can be shown that a flight from the dollar would put as much (or more) pressure on U.S. gold reserves under Triffin's scheme as under the present system.

²⁵ Robert Triffin, “Gold and the Dollar Crisis” (New Haven, 1960), p. 141.

set its structure of interest rates at a level sharply different from that in other countries, we shall argue that there is still some room for national economic policies and that world government is not necessary. In any case, central banks in nations whose economies are closely integrated by trade and convertibility do not now have the power to fix interest rates independently of levels elsewhere. For example, the United Kingdom has accepted the fact that domestic interest rates cannot be set by domestic considerations alone. Even the United States, shielded by de facto exchange controls at home and de jure exchange controls of other nations, is finding that a low, long-term interest rate will lead to foreign bond issues in New York and will thus accentuate balance-of-payments difficulties.²⁶ It is now generally recognized that short-term rates cannot be fixed in disregard of comparable rates elsewhere. Under the present system, nations suffer the disadvantages of interdependence of interest-rate structure but do not enjoy the full benefits of sensitive, equilibrating capital movements.

Under financial integration, central banks would still have important functions to perform. They could do much to facilitate equilibrating flows of capital, and they could assist commercial banks in setting up clearing mechanisms. Their own asset portfolios could be used to generate a supply of (or demand for) foreign exchange, and they could thus supply external as well as internal funds to any single commercial bank that found itself in need of emergency assistance. Through open-market operations, the central bank could induce a flow of funds in the desired direction. Some scope for determination of the national money supply would also remain. The central bank could bring about marginal changes in domestic interest rates—to increase the domestic money supply it would now slightly increase domestic interest rates, thus attracting an inflow of funds. (If such an action is to increase the money supply, it may need to be accompanied by fiscal measures to expand aggregate demand. Otherwise, loans and deposits of commercial banks might decline.) The central bank could also help to establish a system to market domestic (local) claims in external financial markets; i.e., it could help to extend the range of internationally acceptable claims. Variations in required reserve ratios would continue to furnish some degree of control. In fact, all of the traditional weapons of central bank policy would remain, but the direction of effect would be changed in some cases.

Limitations on national autonomy with respect to monetary policy would tend to produce a greater reliance on fiscal policy. Financial integration would require each nation to finance any excess of expendi-

²⁶ Secretary Dillon, in his remarks to the Ninth Annual Monetary Conference of the American Bankers Association in Rome, May 18, 1962, took note of recent foreign issues in New York. He did not object to the purchase of foreign securities by American investors, but deplored "the increasing use of * * * the New York capital market by European borrowers to raise funds for their own internal purposes" (p. 7). This is a curious distinction. Secretary Dillon attributed such issues in part to inadequate development of underwriting facilities in Europe, resulting in "more ready availability of funds" in New York than in Europe. It also has the "incongruous effect of shunting to the New York market new issues from the surplus countries," thus aggravating the U.S. deficit problem, according to Mr. Dillon.

These remarks, set in a context of general espousal of free international capital movements, are themselves incongruous. Secretary Dillon seems in effect to be urging European borrowers to ignore the lower U.S. interest rates out of sympathy for our balance of payments deficit. (Reference are to the mimeographed version of Secretary Dillon's remarks, distributed by the American Bankers Association, 8 pp.)

tures over revenues by issuing securities of suitable yields and maturities to make them salable in external capital markets. Also, prices of outstanding government securities would move to whatever levels were necessary to make them salable (marginally) in external markets. A government could still engage in deficit financing, but it would have to pay interest rates high enough to compete with other issues in world capital markets. New issues of government securities might continue to be sold largely in the domestic market, just as in the United States the bonds of a State government are sometimes purchased primarily by institutions and individuals within that State, but the yields would be competitive. If a nation wished to pursue an expansionary domestic policy, it could do so by reducing taxes or increasing expenditures, financing the resulting deficit by issuing bonds whose yields might have to be slightly above the going rate to make them salable. This necessity to sell bonds at competitive prices would serve to restrain expansionary tendencies of national governments. The belief that their domestic financial markets were effectively separated from the outside world has led governments to think they could expand their money supplies and inflate aggregate demand at no cost. Under financial integration the price of expansion would be more clearly visible, but governments might still choose to pay it. Thus, under financial integration in the United States, the net debt of State and local governments rose \$51 billion from 1947 to 1961.²⁷ This was twice the absolute increase in net Federal debt in the same period. In percentage terms, State and local debt rose 351 percent compared to only 11 percent for Federal.

The necessity to win market approval of a government's fiscal policy would of course represent a restraint on its autonomy. State governments in the United States are careful to preserve their credit ratings in the market. The recent experience of the Canadian Province, British Columbia, is instructive. When interest rates rose throughout Canada in 1962, British Columbia's parity bonds (redeemable at any time) became unattractive and large amounts were offered for redemption. At the same time, short-term credit became tight, especially for British Columbia, whose lines of credit were already over-extended. Cash demands for maturing bonds, plus market reaction to the takeover of British Columbia Electric Co. by the Provincial government, produced a severe credit squeeze. The government has met it by raising the interest rate on parity bonds, cutting back some spending plans, and seeking additional outside financing.

National governments, even in the Atlantic Community, might resent the necessity to satisfy the financial market about their credit standing. But do they really have a choice? Without financial integration, their efforts to issue government bonds in the domestic financial market at noncompetitive interest rates would be accompanied by pressure on official exchange reserves, fears of a flight from the currency, and a weak balance of payments. To combat these evils, governments must either adopt other policies which they dislike in principle (such as tied loans, comprehensive exchange controls, trade restriction), or they must moderate monetary and fiscal policies. It would seem that acceptance of the price of new issues as determined in world capital markets would be the preferred alternative and, indeed,

²⁷ Economic Report of the President, January 1962, p. 268.

would interfere less with national autonomy. This conclusion rests in part upon the assumption that integrated financial markets in the Atlantic Community would be highly competitive.

Even if each nation did agree to keep its structure of interest rates in line with rates elsewhere, as determined in the market, there still remains the question of the method through which the international interest rate structure would be determined. Perhaps the eventual solution will be an international monetary authority with power to determine the appropriate overall supply of money and level of interest rates. Such an authority does not now exist, however, and these matters are somehow resolved by the actions of separate national authorities. We may argue that the proposals made here for financial integration do not change the present method of determination in any fundamental sense. The problem of fixing a world monetary policy does not arise as a result of the integration of financial markets, and the proposed system can operate under existing arrangements as well if not better than the present system. However, it may be that the need for joint action to fix a world monetary policy would be more clearly seen under the proposed system.

The feasibility of financial integration may turn largely on two key questions: (1) How can the permanency of a set of rigidly fixed exchange rates be made credible to the market? (2) Will a member nation retain a sufficient degree of autonomy over domestic economic policy (though not monetary policy) to make the scheme politically tolerable? We have commented on these two questions, but we have not attempted to treat them in detail. Extremely complicated practical difficulties stand in the way of political acceptance, and suitable solutions will require much work and negotiation.

BACK TO THE GOLD STANDARD

Perhaps we should pause at this point to comment on the relation of financial integration as proposed in this paper to the gold standard. Under both the pre-1914 gold standard and the gold-exchange variant of the 1920's, a considerable degree of financial integration existed. Currencies were linked closely together, exchange controls were absent, currencies were freely convertible, and capital movements were largely free of restrictions.

Since its collapse in 1931, the gold standard has been out of favor because of its allegedly harsh adjustment mechanism. In a nutshell, the textbook version of its fall from favor goes as follows. After World War I, wages and prices were no longer as flexible as they had been, especially in the downward direction. National governments also came to regard stability of income and employment as major policy objectives. But under the gold standard, a deficit nation was expected to accept a degree of deflation, set in motion through the loss of gold (or exchange reserves), an increase in bank rate, and a decline in money supply, and leading eventually to a fall in aggregate demand, prices, and incomes. The surplus nation was supposed to experience expansion and thereby to assist in elimination of the external disequilibrium. One difficulty was that surplus nations were not under the same pressure to accept their role in the adjustment process as were deficit nations, and therefore most of the burden fell on the deficit nation. The existence of price and wage rigidities meant that deflation-

ary pressures had their principal effect on employment. But high rates of unemployment were unpopular and gave rise to a variety of social protests. In this climate central banks were loath to obey the famous "rules of the game" with respect to bank rate, money supply, and deflation (or inflation). Therefore the will to its enforcement gone, the gold standard became unworkable.

Several points need to be made at this juncture, although we cannot enter into a detailed analysis of gold standard experience.

1. Did the pre-1914 gold standard really work this way? Taussig's well-known puzzlement about the speed and precision of balance-of-payments adjustment led him to suspect that the classical explanation was incomplete. It has been widely accepted that after the development of income analysis, " * * * the missing link in the classical theory became almost self-evident."²⁸ But even when the classical account of the gold standard mechanism is modified to take explicit account of income effects, a question still remains about its adequacy especially for the pre-1914 period. In a recent monograph, Professor Bloomfield called for research on the pre-1914 system to provide a satisfactory explanation of its operation. He presents some evidence that the stereotype is incorrect, and concludes that—

* * * there is no definite evidence that "monetary discipline" exerted significant "longer run" effects of an equilibrating sort upon the balance of payments, via its impact on the level of domestic incomes and prices, of the kind so often attributed to it.²⁹

Other writers, such as R. S. Sayers and P. B. Whale, have suggested that the Cunliffe Committee version of gold standard operation, with its stress on central bank adherence to the rules of the game, may be incorrect for the pre-1914 period.³⁰ Indeed, its acceptance as gospel in the postwar period may have contributed to the collapse of the system. In his detailed study of international financial transactions, Professor Morgenstern found significant differences between the pre-1914 gold standard and the postwar variant. His concluding chapter contains these passages: ³¹

* * * one of the primary observations made time and again in the preceding chapters is that * * * World War I brought about such behavioral changes as to make it virtually impossible to extend theoretical explanations * * * from one of these periods to any other period. Contacts have become loose, no doubt because of their governments' policies, their craving for "independence," and possibly because of a substantial shift in the center of gravity of economic power. The observation of the loosening of contact, i.e., in terms of the tight contacts before 1914, holds for every single field in which comparative behavior was studied.

It has frequently been asserted * * * that the gold standard mechanism imposed a very rigid behavior, a kind of straitjacket, upon the countries involved in it. Any unpleasant and undesirable variation in country A would force country B to very rigid, undesirable readjustments; if B did not submit to the adjustment, it would cease to remain on the gold standard—a state apparently of overriding significance * * *.

We see now that the data do not bear out this contention. Instead of looking closely at the facts, however, the policymakers and critics have simply accepted

²⁸ Lloyd A. Metzler, "The Theory of International Trade," in H. S. Ellis (ed.), *A Survey of Contemporary Economics* (Blakiston 1949), p. 215.

²⁹ Arthur I. Bloomfield, "Monetary Policy under the International Gold Standard, 1880-1914," Federal Reserve Bank of New York, October 1959, p. 61.

³⁰ R. S. Sayers, "Modern Banking" (London: Oxford University Press, 1938), pp. 185-195; P. B. Whale, "The Working of the Pre-War Gold Standard," *Economica*, February 1937.

³¹ Oskar Morgenstern, "International Financial Transaction and Business Cycles" (Princeton: Princeton University Press, 1959), pp. 563, 569-70.

the theory. Now if we decide to throw away the theory in its classical form, the political consequences change accordingly. A properly described modified mechanism giving a correct picture, might have led to less extreme suggestions than the abolition of the gold standard altogether.

In line with the thesis of this paper, we suggest that financial transactions, especially in long-term claims, may have contributed to the ease and speed of balance-of-payments adjustment before 1914. As Professor Morgenstern has shown, capital markets exhibited considerable "international solidarity" in that period. While his study is primarily concerned with short-term capital, his chapters on long-term securities contain some evidence of their importance.

2. In the U.S. common market, where prices and wages are at least as rigid as they were in gold standard nations in the 1920's, regional balances of payments seem to adjust easily to shifts in conditions. It is not apparent that one region suffers severe deflation, another inflation, to accomplish the needed adjustments. Instead, levels of income and price seem nearly always to move in the same *directions* in all regions, though not exactly in step. Migration may facilitate adjustment, but it would seem to be a slow-working element in the process. U.S. regions may tolerate higher rates of unemployment than nations can, but in the United States, unemployment is likely to be centered in particular industries, and these will usually not coincide with geographic regions. (There is always West Virginia. But it seems likely that even West Virginia would find her adjustment more painful if she were not integrated in the U.S. economy through convertibility of goods, money, and securities.) The rarity in U.S. regional experience of the severe adjustments allegedly required under gold standard conditions makes us doubt that the system is fully understood even now.

We have argued that the evolution after 1900 of a large body of nationally marketable financial claims, coupled with freedom of capital movements, may have provided an important part of the easy payments adjustment in the United States. Perhaps the Atlantic community is now in a comparable position, ready for institutional changes that will permit the emergency of a vast flow of equilibrating capital movements. (Even the term "equilibrating capital movements," carries connotations that tend to confuse. What we mean is that transactions in financial assets may be freed and the flow of such transactions may now be permitted to validate the choices of individuals and firms in the several countries as between current account purchases and the form in which wealth is held.)

3. Regional adjustment in the United States is difficult to study empirically because of the scarcity of data on interregional transactions. However, for one U.S. "region"; namely, the Commonwealth of Puerto Rico, statistics are more plentiful, and it is possible to treat Puerto Rico *as if* she were a separate nation. Her currency—the U.S. dollar—is rigidly fixed at an exchange par of unity, trade is free of tariffs and other restrictions, and capital transactions are completely free. Furthermore, the Puerto Rican government makes no effort to maintain a "foreign exchange reserve." Instead, each commercial bank is responsible for arranging cover in New York funds for any adverse clearing balance it may experience. Puerto Rican commercial banks (which include two branches of New York banks and two branches of Canadian banks) accomplish their mainland

clearings primarily through correspondent accounts with mainland banks. Because their assets include substantial amounts of securities and claims readily salable in New York, they can easily cope with a large outflow of funds. The Puerto Rican government has no direct control over the money supply or the rate of interest, and governmental policymakers rarely even consider monetary policy or the money supply as such in determining economic policy. Nevertheless, the government has pursued a vigorous program of expansion involving large public investments as well as inducements to private capital to enter Puerto Rico. Large government deficits have been financed by the sale of bonds in New York. Such bonds are sold on a competitive basis, with the Puerto Rican government accepting the role of a price taker in this market.

Through its fiscal operations and other actions, the Commonwealth government does of course affect the insular supply of money. However, such operations and actions are actually undertaken with objectives other than those of monetary policy in mind. Changes in the money supply are simply an outcome, a byproduct, and not a goal of policy. The Puerto Rican postwar experience is discussed in detail in a forthcoming book by the present writer.³² We cannot discuss the findings at any length here, but the fact that Puerto Rico is tightly integrated with the U.S. payments system and financial markets seems to be an important factor in her easy payments experience. A large part of Puerto Rican financial claims, whether held by banks, government, firms or individuals, are readily marketable in the external (mainland) financial markets. Furthermore, this is more than a legal possibility; it is an actual operating practice. A shift in the external payments position of Puerto Rico is immediately accompanied by a flow of transactions in a wide range of financial instruments that serve to offset it. Price and income changes facilitate adjustment in the usual manner, but the multiplier appears to be small—the investment multiplier being less than unity.

The size of the total flow of funds to and from Puerto Rico is also worthy of note. Estimates made in the above-mentioned study indicate that *gross* flows in each direction have amounted in recent years to about three times the value of imports of goods and services and about twice the gross insular product. With such huge gross flows, sizable changes in net capital movements can be accommodated.

Before leaving the Puerto Rican case, we should also mention her employment experience during her postwar expansion. The employed labor force was slightly *smaller* in 1960 than in 1947, unemployment was about the same, and a large net emigration had occurred in the interim. Indeed, net emigration from 1947 to 1960 almost equaled the employed labor force in 1960. These facts suggest that traditional adjustments of price, income, wages, and employment remain important even in full financial integration. One may doubt, however, that Puerto Rico would find these variables easier to deal with if her domestic monetary autonomy were greater.

4. The main purpose of points (1)–(3), above, is to suggest that financial integration of the Atlantic Community, while similar to the gold standard in form, would differ in its manner of operation from

³² James C. Ingram, "Regional Payments Mechanisms: The Case of Puerto Rico" (Chapel Hill: University of North Carolina Press, 1962).

the gold-standard stereotype of the textbooks. The crucial difference, we have argued throughout this paper, is that financial integration would broaden the range of contacts between the asset structures of the several member nations, thus enabling shifts in the stocks of claims to cover changes in the flow of payments for current accounts. The gold-standard stereotype emphasizes one key link between nations—their stock of gold and foreign exchange. Despite its emphasis on bank rate and short-term capital movements, the stereotype stresses the separateness of the national economies and especially of their money-flow circuits and capital markets. These are connected through the narrow link of gold and exchange reserves. Necessary changes in each domestic economy are signaled by changes in the reserve. Through the leverage of fractional reserves and central bank powers, the domestic economy is then brought into line. In this view of the system, imbalance in external accounts puts pressure on the exchange rate and, since maintenance of the rate is a responsibility of monetary authorities, the pressure converges on the exchange reserves of those authorities. Any lack of confidence in the monetary unit instantly puts overwhelming pressure on the reserves.

In contrast, under financial integration the pressure resulting from an external imbalance would be widely diffused through the financial markets. Increased demand for foreign exchange would be felt first at commercial banks. Instead of expecting central banks to support the exchange rate, commercial banks would themselves sell off internationally acceptable claims or otherwise arrange foreign-exchange cover. As such sales occurred, interest yields on deficit-country claims would firm marginally, thus attracting purchases from financial institutions throughout the world. Elimination of the permitted spread around the official par and firm pledges to fix permanently the exchange rates would facilitate international comparisons of security prices and the easy flow of transactions. As already mentioned, the forward exchange market would be eliminated (to the extent that the pledged fixity of rates were credible). The points of contact between the economies of member nations would become more numerous. Portfolio choices among cash, government bonds, and other securities by financial institutions in one country would be placed in contact with similar choices by institutions in other countries. The mass of financial claims in the portfolios of such institutions in any country is so large that even small changes would be enough to cover almost any conceivable swings in the external balance.

5. Unfortunately, it seems necessary to comment on the place of gold in a financially integrated Atlantic Community. The eventual (and best) solution would be to demonetize gold, but interim arrangements seem to be necessary. To the extent that *permanently* fixed exchange rates in the Atlantic Community were credible, member nations would have little desire to hold gold and, indeed, little need to do so for purposes of international payments. Under present arrangements, most of the gold would probably flow into the U.S. Treasury. To prevent this unwelcome development, a scheme such as that recently proposed by Professor Angell might be adopted.³³ He

³³ James W. Angell, "The Reorganization of the International Monetary System: An Alternative Proposal," *Economic Journal*, December 1961.

proposes, among other things, that gold be eliminated as a means of international payment. As just mentioned, our proposal would substantially eliminate gold from international payments within the Atlantic Community, and we have suggested above that the rest of the world is unlikely to want to accumulate much gold in the near future. The question might well become: Who is to be stuck with the world's gold stock? Perhaps the International Monetary Fund might be authorized to buy it at the present price, giving Triffin-type deposits in exchange. No nation would then have to take a capital loss on its holding in case the market price fell, as it probably would.

IV. FURTHER OBSERVATIONS AND CONCLUSIONS

A primary objective of the above discussion has been to show that rigid exchange rates and freedom of capital movements are likely to strengthen and stabilize the international monetary system. The theoretical argument is simple, although some complex issues lurk beneath the surface. Our arguments have been largely institutional, however. We have described some institutional arrangements and some aspects of an environment in which it would be reasonable to expect financial integration to operate, and we have argued that it would lead neither to extraordinary limitations on a given nation nor to the disruption of financial markets.

Under financial integration, it is unlikely that a large part of any nation's stock of financial assets would have to be sold to foreigners before an equilibrium would be reached. Once the markets had adjusted, subsequent movements should be even smaller in relation to national stocks of assets. Even under the present system, foreigners' demand for gold has not been infinite at allegedly "peril point" prices. A well-known writer on currency affairs warned not long ago that if the price of gold on the London market rose to \$35.25 (it was then about \$35.10) all U.S. gold would flow out. Fortunately, however, the demand for gold proved to be less elastic than his statement implied.

Longer run adjustments in prices, wages, and incomes have not been discussed at length in this paper, but we have suggested that traditional analysis of these adjustments needs to be modified in order to allow more adequately for the role of long-term capital movements.

Our argument has also been that the trends of events and policies in recent years have been strongly in directions consistent with financial integration, and that preservation of separate financial markets and monetary policies is incompatible with these trends. This part of the argument can be stated as follows:

PREMISES

1. Nations (of the Atlantic Community) have removed most quantitative restrictions on commodity trade, have reduced tariff levels, and are moving toward substantial freedom of trade in goods and services.

2. Nations have eliminated most exchange controls on current account restrictions, and many have accepted article VIII of the IMF charter. Progress has been made toward external convertibility on

capital account, and the trend is toward the extension of convertibility to residents as well.

3. Nations have shown a strong preference for fixed exchange rates, and a dislike for even occasional exchange rate adjustments.

CONCLUSION

It follows that exchange controls on capital movements alone are incapable of shielding official reserves from pressures arising from outflows of funds prompted by domestic monetary policies or any other reason, and that the domestic economy therefore cannot in fact be separated effectively from external influences. Since the supposed advantages of separation cannot be secured, the logical alternative is to accept financial integration, and to take steps to secure its positive advantages.

While this paper is chiefly institutional and descriptive in nature, it is comforting to note that our main thesis is consistent with some recent theoretical work. We shall mention only one example. Mundell has shown that if exchange rates are fixed, it is crucially important that capital movements be highly mobile and responsive to interest rate changes.³⁴ Mobility of other factors is also helpful, but capital mobility may be enough for stability and easy adjustment.

In the remainder of this paper, we shall comment briefly on several aspects of financial integration and on its implications for present problems of policy.

There is, we argue, an inherent absurdity about a system in which the richest nation in the world, with a gross national product of \$550 billion and a stock of financial assets exceeding \$2,000 billion (not to mention other forms of wealth), should be forced by deficits of \$3 or \$4 billion in 3 or 4 years to make major changes in national policy. Yet the United States has done exactly that. We have tolerated higher levels of unemployment than we want; we have tied loans and aid, thereby increasing the cost of achieving any given objective; we have similarly sought to reduce military expenditures abroad by many expedients, most of which increase the cost of a given program; we have begun to complain about firms and individuals who make foreign investments when our balance of payments is weak; and we have in many ways shown a readiness to retreat from principles of nondiscrimination long urged by us upon other deficit nations.

It would seem reasonable to expect a nation as wealthy as the United States to be able to undertake almost any international program it considers to be in the national interest, without being checked so abruptly by a balance-of-payments deficit. The international monetary system should be able to accommodate even a \$20 billion swing in the U.S. external balance. Suppose, for example that the Department of Defense decided that our national defense effort would be strengthened by switching an additional \$10 billion of defense expenditures from the United States to Europe. Why should such a switch create any serious difficulties? The answer currently given goes as follows: when the new expenditures are made in Europe, European firms and individuals will not wish to increase purchases of our goods

³⁴ Robert A. Mundell, "The Monetary Dynamics of International Adjustment Under Fixed and Flexible Exchange Rates," *Quarterly Journal of Economics*, May 1960.

and services by a very large proportion of the \$10 billion, nor will U.S. imports of goods and services decline very much. Consequently, our current account balance will improve very little, and European official reserves will rise by nearly \$10 billion. European monetary authorities are likely to convert a portion of their new dollar balances into gold. As our gold stock falls and demand liabilities rise, fears about dollar stability will weaken confidence in the gold link, and a flight of funds might be set off. Consequently, even such a militarily desirable shift in our expenditures cannot be made because of balance-of-payments considerations.

Stated in this way, it is clear that we are dealing with an old, familiar problem of international economics—the transfer problem. The argument of the above paragraph is that the current account of the balance of payments is so sticky and unresponsive that, even though we have raised the \$10 billion in the United States, the real transfer of this sum cannot be effected. To do so would require an increase in our exports (or decrease in imports) sufficient to increase our current account surplus by \$10 billion. But the price and income changes, here and in Europe, necessary to produce this result will not be forthcoming. This failure is evidenced by stresses in the exchange markets. (Under the present system, the difficulties take the form of loss of gold by the United States and fear of a flight from the dollar.)

The nub of the difficulty seems to be that Europeans do not wish to spend increments of income on imports, but prefer to increase their stocks of assets. Many European firms and individuals who desire to acquire additional assets are forced to acquire *domestic* securities and claims by existing exchange controls and the separation of financial markets.³⁵ The dollar exchange thus accrues in large part to monetary authorities, who may at any time on the basis of whim or doubts about the dollar convert them into gold. But if Europeans prefer to hold more assets, why should they not satisfy that preference by holding U.S. securities and claims? Under financial integration, with the attraction of domestic (European) and foreign (United States) securities equated at the margin in the open market, the decision by Europeans to hold more assets would result in the transfer of securities and claims from United States to European ownership. The “real transfer” would be effected by the export of U.S. financial assets instead of merchandise. It seems eminently reasonable that the wealthiest nation of all time should be able to buy something abroad (a military program in this case) and to pay for its purchase with a portion of its accumulated wealth.

It is in these terms that the restraints placed on us by a few balance-of-payments deficits of \$3 to \$4 billion seem absurd. Because of these restraints, we are forced to check the expansion of our own economy—to retard the formation of real capital (and therefore the expansion of the stock of financial claims to that real capital). These restraints are absurd in part because they are so inefficient; they may reduce real capital formation by, say, \$10 billion in order to reduce a deficit by \$2 billion.

³⁵ We have argued above that exchange controls are ineffective. In the present example, however, European currencies are strong, the dollar is weak, and there is little incentive to evade the regulations.

Furthermore, because of balance-of-payments restraint we have been led to adopt a number of undesirable expedients, as already mentioned above. Many of these expedients increase the actual dollar cost of the program concerned. Yet our uneasiness about flights from the dollar has been such that we seem to be willing to spend \$2 at home in order to reduce expenditures abroad by \$1.

The classical theory of international trade was largely developed under the assumption of factor immobility. Despite the attention given to capital movements in discussions of the monetary aspects of adjustment problems, this assumption has continued to exert an influence. With separation of financial markets and exchange control, the role of capital movements is quite limited. We suggest that this neglect has resulted in a serious underestimate of the potential role of capital movements in international trade.

Although nations continue to act as though they want to continue the separation of financial markets—and as though they believe it is feasible to do so under present circumstances—there are signs of recognition of the necessity or even advantages of financial integration. We shall mention a few of these. First, calls for higher interest rates in the United States have come from several sources, both inside and outside governments. It is increasingly recognized that U.S. interest rates cannot be held below comparable rates in other nations, especially when *their* exchange controls are removed. One reason the United States has been able, until recently, to formulate domestic economic policy with little regard for the balance of payments even without exchange controls is that transactions which might have undermined our separate domestic policy were restrained by exchange controls in other countries and by fear of exchange-rate losses. Both these restraints are rapidly being reduced.

Second, proposals for exchange guarantees have been made on every side.³⁶ Such guarantees are designed to eliminate the fear of loss through exchange depreciation. *Most* of the proposals have taken the form of a gold guarantee by the United States to cover *official* dollar holdings. If credible, such a guarantee would tend to reduce the pressure on our gold stock, but it would by no means eliminate it. Continued dollar deficits might lead to massive outflows of private funds, most of which would come into the hands of official holders and thereby obtain protection of the gold guarantee, thus increasing the *cost* to us of any change in the price of gold. This could weaken confidence in the guarantee and lead to renewed losses of gold. Furthermore, as foreign exchange controls are relaxed, private purchases of gold in the London market would increase whenever the dollar was weak. Although U.S. citizens are forbidden to hold gold, either at home or abroad, the citizens of other countries may not be forbidden to do so. And, although the U.S. Treasury sells gold only to official foreign buyers, the U.S. gold stock is virtually available to private foreign buyers through the London gold market. Only ignorance and the restrictions of other countries prevent the flow of gold into private hoards. For example, it is French regulations on resident convertibility that prevent French peasants from buying gold in the London market. As other countries move toward resident

³⁶ The case for exchange guarantees has been critically examined by David S. Ball, in "Foreign Exchange Guarantees," a paper recently submitted for publication.

convertibility, our position becomes more hazardous unless we can make institutional changes to bring our financial wealth into the balance.

Third, the Eurodollar market may also be interpreted as a device to counter the separation of financial markets that authorities have attempted to preserve. This market serves to increase the supply of funds available to qualified borrowers in countries where interest rates are high. The borrowers cannot in most cases borrow directly from New York banks, either because they are "local names" or because of exchange controls and other regulations. Through the Eurodollar market, however, local banks with direct knowledge of the borrowers' credit ratings are enabled to lend dollars. Dollar deposits are placed in foreign banks (and oversea branches of U.S. banks) largely because such banks can pay higher interest rates on time deposits (and demand deposits) than can U.S. commercial banks. Although such deposits are still relatively small (estimates ranged from \$1 to \$3 billion in 1961), their existence has already prompted a relaxation of regulation Q to permit U.S. banks to pay higher rates on time deposits (present ceiling is 4 percent). Furthermore, the administration has supported a bill to remove the interest ceiling altogether on foreign-held time deposits. (This latter measure is itself evidence of a belief in the feasibility of separating national financial markets. For such a distinction to be effective, U.S. residents must either be ignorant of opportunities or fearful of being accused of improper conduct if they place funds abroad.) It seems clear that only the risk of renewed exchange control by foreign authorities prevents a massive shift of time deposits from U.S. to foreign banks.³⁷ If there were no risk of renewed exchange controls (i.e., if the market evaluated the risk as zero), interest rates on *all* time deposits (domestic as well as foreign held) in U.S. banks would have to rise to match the rates of foreign banks, except perhaps for a small differential because of convenience. U.S. authorities could resist this rise only if they were willing to restrict the right of U.S. individuals and firms to hold time deposits abroad. But such a restriction would be overt exchange control, and the United States would no doubt be loath to reverse its longstanding opposition to exchange controls. (The restriction on gold holding abroad by U.S. citizens is perhaps a special case.)

Many important aspects of financial integration have not yet been mentioned—such as taxation—but this paper is already longer than originally intended. There is space for only a brief comment on the political feasibility of financial integration. Most economists with whom this proposal has been discussed have expressed grave doubts that nations could be induced to surrender their autonomy over monetary policy. This appraisal is no doubt correct, given the present state of opinion about the nature of that autonomy. We have argued however, that national autonomy is more apparent than real at the present time. Furthermore, it seems arguable that nations would have more real power to influence domestic economic policy under financial integration than they have at present with currency convertibility, fixed exchange rates, and the trend toward freer trade in

³⁷ Dollar deposits in London banks are subject to whatever regulations the United Kingdom may impose, for example. Deposits in U.S. branches are also subject to such restrictions, as such branches are careful to explain to depositors.

commodities. This is at any rate a point that needs to be examined with care, both analytically and practically.

It seems possible that financial integration would have a certain expansionary (if not inflationary) bias, in contrast to the alleged deflationary bias of the gold standard. Thus, if the United States adopted suitable fiscal policies to expand employment and income to full employment levels, the resulting increase in our expenditures abroad might be covered primarily by the sale of long-term claims to individuals and firms in the rest of the world. If governments in other countries objected to the increase in external investment by their citizens, their chief recourse would be to expand aggregate demand at home. But if the citizens of a country, say Germany, preferred to use increases in their incomes to acquire financial assets (whether domestic or foreign), why should a government object to their preference?

An expansion of U.S. income would, as mentioned above, increase our expenditures abroad and lead to increased holdings of claims on United States by foreigners (Europeans). It is doubtful that such holdings would rise by much (\$5 billion? \$20 billion?) before the European preference for assets over goods would diminish, even without Government action to influence it. Thus our current account would eventually shift, as European demand for imports rose.

Prof. Emile Despres has emphasized the need for institutional innovation to permit necessary adjustments to take place over possibly *prolonged* periods of imbalance in external accounts. As he says, "Our international monetary institutions simply do not fit our newly liberalized trading and payments arrangements."³⁸ Financial integration seems to provide a far more ample cushion than ever seems likely to be provided by "official foreign exchange reserves" in a context of separated financial markets.

³⁸ Emile Despres, Discussion of J. J. Polak and R. R. Rhomberg, "Economic Instability in Our International Setting," *American Economic Review*, Papers and Proceedings, May 1962, p. 125.

PROPOSALS FOR REFORM OF THE INTERNATIONAL
MONETARY SYSTEM

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PROPOSALS FOR REFORM OF THE INTERNATIONAL MONETARY SYSTEM¹

I. THE PRESENT SYSTEM

The present monetary system in most countries of the free world is the gold-exchange standard. Under this system, the foreign reserves of central banks consist not only of gold but also of liquid claims against certain countries, called the key-currency or reserve-currency countries. At present these claims consist partly of deposits in American and British banks and chiefly of American and British short-term government obligations.

The increase from 1949 to 1960 in the gold holdings by monetary authorities of the free world amounted to \$4,900 million, or 14.8 percent. This corresponds to an annual rate of increase of 1.3 percent. The increase in foreign-exchange holdings amounted to \$11,145 million, or 106.1 percent over the 11 years, which corresponds to an annual rate of increase of 6.8 percent. Gold and exchange holdings together increased by \$16,045 million, or 36.8 percent, an annual rate of increase of 2.9 percent. If we now add the gross IMF position of the national monetary authorities, we find that their foreign reserves increased by \$25,378 million, or 49.2 percent over the 11 years, an annual rate of increase of 3.7 percent.

Thus, the composition of the monetary reserves has undergone considerable change, especially notable in the relative shrinkage of the metallic nucleus of the currencies. At the end of 1949, the monetary gold stocks of the free world nations had been 75.9 percent of their reserves; at the end of 1960 they were only 63.8 percent. Correspondingly, the portion of foreign-exchange holdings in the total reserves, not counting the IMF positions, increased from 24.1 percent to 36.2 percent. Most drastic was the increase in the claims against the United States: from \$3,071 million at the end of 1949 to \$10,484 million at the end of 1960. Claims against the United Kingdom remained almost unchanged—\$7,856 million in 1949 and \$7,563 million in 1960—and thus became a smaller part of total foreign-exchange holdings. The increase in the IMF position goes back chiefly to the increase in the quotas in 1958.

This brief description of the situation may be sufficient for an understanding of the anxieties and warnings with regard to deficiencies and dangers of the present international monetary system.

II. CHARGES AGAINST THE SYSTEM

Several experts have been careful to distinguish three different problems connected with the present system. Each of the three problems has at least two aspects calling for our attention.

¹ A much more extensive treatment of "Plans for Reform of the International Monetary System" is published by the Princeton University International Finance Section

A. Difficulties with the balance of payments of individual countries—

1. Because of excessive deficits or insufficient surpluses² in the balance on current account;

2. Because of massive international movements of speculative funds.

B. Inadequacy of the growth of monetary reserves—

1. Relative to the demand for “domestic liquidity” or to the “desirable” supply of domestic money;

2. Relative to the growth of foreign trade.

C. Fragility of the gold-exchange standard—

1. Dangerous to key-currency countries;

2. Dangerous to countries holding large exchange reserves.

A. DIFFICULTIES WITH THE BALANCE OF PAYMENTS

Problem A-1 cannot be regarded as a defect of the present system. Yet, some of the plans are designed to institute a system of international payments that gives countries in difficulties much more time to wait for an improvement in their balance on current account without resort to the orthodox treatment with painful contractions of credit and effective demand. This tough remedy has become rather unpopular in a world more sensitive and less capable of adjusting to change. If the “old-fashioned” cure is at all accepted nowadays, one tries to postpone it as long as possible in the hope that things will get better without treatment.

There are, of course, other currency doctors, who find that postponement of the one reliable cure could only be harmful. As a matter of fact, some of the critics of the gold-exchange standard have stated that the acceptance of ever-increasing amounts of demand liabilities of the United States as parts of the monetary reserves of other countries postponed for almost 8 years substantial gold outflows from the United States and thus postponed the warning signals which such outflows would have implied. Thus, some find the present system deficient because it gives countries in difficulties with their balance of payments too much time, and others, because it gives them too little time to get over their troubles. There can be a third point of view: that the present system operates unequally relative to different countries, particularly in that it provides inadequate discipline on key-currency countries but rather harsh discipline on other countries. Hence, it gives too much time for adjustment to some countries and too little to others.

No such ambivalence exists regarding problem A-2, that is, regarding difficulties with the balance of payments on capital account because of hot-money movements. There is agreement on the desirability or need to improve present institutions to cope with speculative capital movements.³ Massive movements of hot money are brought about

² Surpluses on current account are regarded as “insufficient” when they fail to offset completely deficits in the balance of long-term capital movements and unilateral transfers. In this formulation the concept of “balance-of-payments difficulties” is confined to cases of gold and exchange outflows; some writers may prefer to extend the concept to include cases of heavy inflows of gold and foreign exchange.

³ This should not be confused with problems of long-term capital movements—portfolio investment, direct investment, and foreign aid—that is, outflows of investable funds that should be reflected in the balance on current account of the investing, lending, or aiding country. (This would be part of problem A-1, that is, difficulties due to a balance on current account that does not fully reflect the movements of long-term capital, including foreign aid.)

either by sudden changes in international interest-rate differentials or by rumors of imminent changes in official exchange rates. The return to convertibility and the abolition of restrictions on capital transactions have undoubtedly increased the dimensions of international hot-money movements and have thereby created difficulties with the balances of payments which perhaps cannot be managed with foreign reserves of the size now at the disposal of the monetary authorities in the countries concerned.

One may ask why the gold standard before 1914 was not exposed to shocks of this sort and could work without any special shock absorbers. The answer is simple. In the old times there never were any rumors about impending devaluations, since no country ever seriously contemplated changing the gold par of its currency. In the old times, moreover, there were no disequilibrating differentials in interest rates or, at least, they were not allowed to last long, since the central banks were always trying to adjust their bank rates to the balance-of-payments situation. Under the rules of the old gold-standard game, interest policy had to serve the equilibration of the balance of payments, and was not, as nowadays, subservient to employment and growth policies. Consequently, interest-rate differentials did not disturb but, on the contrary, helped maintain or restore international payments equilibrium.

This is in sharp contrast to present-day practice of some central banks, which insist on maintaining low interest rates (in order to fight unemployment) even if this leads to heavy outflows of funds. The Federal Reserve banks, in the summer of 1960, lowered discount rates in the face of payments deficits. The reverse side of the same practice is for a central bank to insist on high interest rates (in order to fight price inflation) even if this aggravates a heavy inflow of foreign funds. The German Bundesbank did precisely this until it learned the lesson. A credit policy with so little regard for its external consequences is apt to aggravate widespread fears of devaluation. After all, so the apprehensive ones reason, a country which cares so little about a loss of reserves that it would not even put up with higher interest rates apparently does not care much about the maintenance of its gold parity. Under such circumstances, massive international movements of speculative funds must be expected. It may take special institutions to cope with them, chiefly by providing the means for "compensatory official financing," that is, the foreign funds needed to meet the speculative demand, without recourse to payments restrictions and without peril to the maintenance of the fixed foreign-exchange rates.

B. INADEQUACY OF INTERNATIONAL RESERVES

The question of the adequacy of the growth of monetary reserves is controversial. It has been contended that reserves have grown too slowly during the last 10 or 12 years. This view is opposed by others, who deny that either the size of reserves or their rate of increase has been inadequate. Indeed, they hold that reserves have been excessive. Both factions seem willing to accept as a criterion of adequacy the influence which the reserves and their changes have upon the supply of money in the countries concerned. We have called this our problem B-1: the question of the adequacy of reserves relative to the needs of "domestic liquidity." According to the one group this influence was

deflationary and responsible for an unsatisfactory rate of economic growth. The other group regards the influence as inflationary since it permitted a general rise in the price levels of practically all countries. In view of these differences in judging the consequences of the operation of the international monetary system in the past, one cannot be very hopeful about reaching an agreement regarding the principles to be applied to the reform of the system.

The size and growth of foreign reserves relative to the needs of domestic liquidity and to the size and growth of the domestic money supply is only one of the possible criteria for judging the adequacy of the growth of gold and exchange reserves. Many experts prefer to rely on an indicator which "measures" the reserve position of the world as a whole, to wit, the numerical ratio between aggregate reserves and imports. This we have called our problem B-2. The difference between the two measures of adequacy reflects two separate functions of monetary reserves. They are used, on the one hand, as institutional determinants of the domestic money supply and, on the other hand, as international means of payments to finance temporary deficits in the balance of payments. Hence it is quite in line with this double function of international reserves that their adequacy is judged with reference to both national circulation and international payments.

Any reduction in the ratio between international reserves and total imports indicates to some observers that the growth of gold and exchange reserves has been inadequate. This, however, presupposes that the ratio was "just right" at the outset. Surely, if the reserves relative to foreign trade, or total imports, had been more than adequate in the beginning, a decline in this numerical ratio need not imply that the reserves have become inadequate. The total value of imports of the countries of the free world did in fact increase from \$59.6 billion in 1950 to \$119.1 billion in 1960. Thus, the ratio of reserves to imports fell from 81 to 50 percent. But who can say that the 81 percent had been just right, or the bare minimum? Let us not forget that back in 1913 the ratio was only 21 percent.

Apart from the question whether the ratio of reserves to imports was just right in the base year there is no evidence for the contention that the need for reserves rises proportionately with foreign trade. It is true that in domestic circulation the need for cash balances on the part of householders is likely to increase approximately in proportion with consumption expenditures. On the other hand, the need for cash balances on the part of existing business firms does not usually increase proportionately with turnover. In all probability, the demand for cash balances in the economy as a whole will rise with the national product but the increase may be smaller if the share of investment in the income increase is greater. One may say that with an increase in the volume of transactions the demand for cash balances will increase least in those sectors of the economy in which clearing systems have developed requiring only the payment of clearing balances. It seems to me that foreign trade falls into this group and that consequently there is no theoretical support for the assertion that the need for international reserves rises in proportion with imports.

Even if one refuses to admit that the growth of international reserves has been inadequate during the last 10 or 12 years, one might still side with the inadequacy theorists in their pessimism for the fu-

ture. The prospects for the future growth of reserves would indeed be rather dim if one could not expect the pool of reserves to be fed during the next 10 years or so through continuing increases in dollar claims; and indeed further increases in the demand liabilities of the United States at the fast rate of the past years might well be unacceptable to all parties concerned. If it is agreed that the short-term indebtedness of the two key-currency countries, the United States and the United Kingdom, must not be increased substantially in the coming years, then it is quite plausible that a real, generally recognized scarcity of reserves will develop in the course of time. To prevent such a calamity, changes in the present system are favored even by some of those experts who do not consider the past growth of reserves inadequate.

C. DANGER OF COLLAPSE

The consideration that the fast increase of the share of dollar claims in the total reserves of the world may be deemed unbearable for the system has brought us to the third set of problems—the fragility of the gold exchange standard. Ever since 1950, the United States, through its purchases, investments, loans, and aid, has put at the disposal of foreign countries more dollars than these countries have used for their purchases in the United States. In this fashion, foreign dollar claims, both of private holders and of central banks and other national monetary authorities, have increased at a fast rate. During the first 7 or 8 years this accumulation of the foreign exchange reserves of various countries was welcomed by all; the demand for dollar balances was eager and the supply of dollars was therefore received with open arms. Later on, however, the accumulation of exchange reserves was continued without enthusiasm. (In other words, the same phenomenon from the point of view of the United States was elsewhere seen first as a symptom of “dollar shortage” and later as a symptom of “dollar glut.”)

As the share of foreign exchange in the official reserves of the free world increased, more and more people began to doubt whether this steady excess supply of dollar liabilities could be absorbed without limit. The willingness to accept further dollar supplies is, thereby, further reduced and fears regarding the future value of dollar exchange become increasingly serious. If then, in addition, some experts raise their voices advancing—in support of the aims of gold producers and speculators—proposals for an increase in the price of gold, the position of the dollar and the preservation of the gold exchange standard become precarious.

The strong demand for gold for speculative purposes and hedging then leads to a further increase in the supply of dollars in the foreign exchange markets. Since not all central banks stand ready to increase their exchange reserves at the expense of their gold stocks, it becomes necessary for the American monetary authorities to sell gold in order to safeguard the position of the dollar. Yet, these gold losses in turn aggravate the doubts concerning the ability of the United States to defend the gold parity of the dollar in the long run, and these doubts cause private banks and public authorities to be even less willing to offer shelter to increasing amounts of dollar exchange. Hence, the more serious the fears that the gold-exchange standard will

break down once again (as it did in 1931, when Great Britain went off gold), the more real becomes the danger of its actual collapse.

The consequences of such a collapse may be manifold, but most probably they would include some of the following measures and repercussions: Restrictions on or termination of all sales of gold by the monetary authorities of the United States; restrictions on international payments through the introduction of foreign exchange controls and prohibitions of capital transfers; import restrictions of all sorts; blocking of deposits of foreign nationals; the end of convertibility of most currencies, including the present key currencies; elimination of these key currencies from the official reserves of central banks and consequently a drastic reduction in "liquidity" everywhere; severe losses incurred by those central banks which did not match the depreciation of the key currencies with equal devaluations of their own currencies; * reductions in production and employment resulting from import restrictions and export reductions. It may, of course, be possible through skillful improvisations to avoid or mitigate some of the worst consequences of the collapse of the international payments system, but it would surely be wiser not to rely on improvisations and to avert a collapse of the system through appropriate reforms. It is on the basis of this kind of argument that monetary experts have offered their plans and urge their adoption.

III. A SELECTION OF PLANS

A variety of plans have been proposed and the world will have to make a difficult choice. However, that any of the more radical innovations in the world monetary system will be adopted is far less probable than that the decision will be in favor of a policy of "muddling through," with only small repairs to the worst cracks and breaks in the old structure. One must not hold it against the practitioners and politicians if they resist more ambitious innovations since, after all, the arguments and favorite notions of the scholars diverge so widely. To help us survey the plans proposed, we shall begin with a simple classification. Our classification distinguishes five types of different solutions, but the possibility of combining any two, despite all their differences, yields a considerably larger number of choices.

- A. Extension of the gold-exchange standard—
 1. With continuing increase of dollar and sterling reserves;
 2. With adoption of additional key currencies.
- B. Mutual assistance among central banks—
 1. With safeguards against expansive credit and fiscal policy;
 2. With extension of domestic credit and expenditures.
- C. Centralization of monetary reserves and reserve creation—
 1. With overdraft facilities available to deficit countries;
 2. With autonomous reserve creation by the world central bank;
 3. With finance of aid to underdeveloped countries.
- D. Increase in the price of gold—
 1. With the gold-exchange standard continued;
 2. With the gold-exchange standard abolished.

* The losses which the Netherlands Bank suffered as a result of the depreciation of the pound sterling in 1931 exceeded the bank's entire capital.

E. Freely flexible exchange rates—

1. In order to make internal monetary policies more independent;
2. Because internal monetary policies are too independent.

A. EXTENSION OF THE GOLD EXCHANGE STANDARD

It may be doubtful that, in view of all its defects and deficiencies, imaginary or real, the present system can long endure in its present form—but it is not impossible. The system may prove to be viable even without special measures for its reinforcement. If the “practical people” continue to resist all more extensive plans for reform, muddling through will be the only practical possibility. This may lead to an unhappy ending but, again, with some luck things may come out all right. It is conceivable that confidence in the dollar and in the pound sterling is fully restored; that the constant predictions of an increase in the price of gold will no longer be taken seriously; that the further increase in demand liabilities of the United States will not exceed the willingness of other central banks to accept them as part of their reserves; that the monetary authorities of countries still suffering from an excess demand for dollars for foreign payments will at last become healthy enough to afford the acquisition of dollar balances for purposes of accumulating a foreign reserve; and, finally, that the growth of the foreign reserves of the free world through new gold production, gold dishoarding, and through the said increase in dollar balances will be fully adequate to meet the world’s need for reserves. It takes some optimism, however, for one to count on all these conditions of a happy ending actually to materialize.

Alternative A-2 would put the gold-exchange standard on a broader base. Some of the strong currencies—for example, the German mark, French franc, and Swiss franc—might be recognized and adopted as additional key currencies. Just as a large firm may have accounts with several banks or in several cities, so the central bank of a country may hold in its official reserve the currencies of several other countries.

The recognition of additional key currencies means not only that the monetary authorities of third countries hold reserves in the form of four or five foreign currencies, but also that the present two key currency countries hold some of their reserves in currencies of the new key currency countries. It may seem odd that the Federal Reserve Bank of New York should hold balances in Frankfurt while at the same time the German Bundesbank holds balances in New York. This looks almost like financial kiteflying, since the mutual establishment of credit balances by way of mutual lending creates assets in the form of official reserves without any effort, expense, abstinence, or saving on the part of any of the countries concerned.

It is important to understand how, under such a multiple currency reserve system, official reserves will be affected by international payments. If payments are made from one country to another in the currency of a third country, then, and only then, the effect will be precisely as under the full gold standard: The paying country will lose reserves and the receiving country will gain reserves, total monetary reserves remaining unchanged. In a key-currency country the mone-

tary reserve will not change when payments are made or received in its own currency. Hence, total reserves of all countries combined will increase when payments are made from a key-currency country in its own currency; conversely, total reserves will decrease when payments are received in a key-currency country in its own currency.

Of course, the monetary authority of a key-currency country will hardly leave it entirely to the whims or habits of bank clients to determine how the amount or composition of its foreign-exchange reserves are to change. Convertible currencies can be exchanged one against the other, and key-currency countries may use their deposits in other key-currency countries at any time to reduce their own obligations. Any such compensation of claims against liabilities destroys monetary reserves in the same way that the establishment of credit balances in key-currency countries creates monetary reserves. It would be quite likely that the central banks of key-currency countries would, in close cooperation, take advantage of the possibility to create and destroy monetary reserves.

There is one necessary condition for things to develop along these lines: There must be a large measure of confidence in the credit and fiscal policies of the key-currency countries. After all, the willingness of a central bank to allow its monetary reserves to grow by accumulation of claims against a particular country implies its willingness to grant increasing amounts of credit to the central bank of that country. A central bank that increases its holdings of a foreign currency is in effect making a loan to the central bank issuing that currency. This could not be expected if there were serious misgivings about the policies pursued by the borrowing central bank, especially if there were fears that it intended to continue an unsound policy despite ever-mounting indebtedness. Thus, in the last analysis, a development of type A-2 converges upon the basic idea of the alternatives of type B. The reverse need not be true. Although the extension of the gold-exchange standard in the manner just described would involve mutual assistance by central banks, most of the plans for mutual assistance among central banks are entirely independent of any recognition of additional key currencies. Indeed, the most widely discussed plans of type B take it for granted that the dollar and the pound sterling remain the only reserve currencies.

B. MUTUAL ASSISTANCE AMONG CENTRAL BANKS

The simplest and most common way in which one central bank may extend credit to another would be for the helping bank to purchase the currency of the bank in need of help and to continue to hold the acquired foreign exchange for the time being. This can be done either without any previous arrangements or on the basis of standby agreements. The transaction itself is not one between the "lender" and the "borrower," since the obligations of the borrower are offered for sale by third persons, and since the bank which acquires these obligations makes its payment to the seller rather than to the implicit borrower, the obligated bank.

Other kinds of assistance do involve direct transactions between the lending and the borrowing central banks. For example, the lending bank may put at the disposal of the borrowing bank gold or claims against (i.e., currencies of) third countries and thereby reduce its own

assets; or, alternatively, it may supply claims against itself, and thereby increase its liabilities. Finally, there is the possibility for an intermediary, such as the International Monetary Fund, to step in between the lending and the borrowing central bank. All of this may be on the basis of ad hoc agreement or of standby agreements, providing for credits or drawing rights upon demand.

Of the many forms which the support action may take, the most favored at the present time calls for loans to the IMF by central banks of surplus countries in their own currency, enabling the Fund to sell these currencies to the monetary authority of the deficit country, which pays with its own liabilities (and a promise to repurchase these liabilities as soon as possible). The purpose of this support action is to provide compensatory finance to a country suffering from a massive outflow of short-term capital.

This is the kind of action recommended in the proposals made by Xenophon Zolotas, president of the Bank of Greece, Edward M. Bernstein, former director of the Research Division of the IMF, and Per Jacobsson, managing director of the IMF. All these proposals provide that the most important industrial nations with balance-of-payments surpluses make loans to the IMF, enabling it to place the acquired funds at the disposal of the monetary authorities of important industrial nations suffering from outflows of short-term capital. These plans differ from one another merely in technical details. For example, under the Bernstein plan the central banks in trouble could with relative certainty count on the availability of IMF support, whereas under the Jacobsson plan—which represents a compromise with the more orthodox points of view of central bankers in continental Europe—the lending banks would have to approve of the intended IMF action in each case. All these plans are designed to reinforce the gold-exchange standard against the onslaught of hot-money movements. Their common feature is that the IMF would borrow from the central banks in the countries receiving capital inflows and would make the borrowed funds available to the central banks suffering from the capital outflows.

The role of the IMF in these interventions is that of an intermediary and guarantor, not that of a bank of issue or of a commercial bank engaged in the creation of credit. A real bank (in the economic sense of the word) would not have to start looking for lenders; it would purchase long-term obligations in the open market or acquire short-term obligations by granting loans, and in the process would create its own deposit liabilities which serve their holders as means of payment and transactions-cash balances. Under the proposed arrangements, however, the IMF is to borrow liquid international means of payment in the form of demand liabilities of central banks in strong positions and pass them on to the central banks battered by the hot-money storm.⁵

The way in which the support action proposed in the Zolotas, Bernstein, and Jacobsson plans compensate for the results of a short-term capital movement is demonstrated in my longer paper. (*Op. cit.*) The lending country will have secured a gold guarantee for a part of its excessive holdings of foreign exchange, and the borrowing country will have a part of its excessive sight liabilities funded; that is, replaced by a debt of deferred maturity.

⁵ The difference between credit creation and credit transfer is demonstrated in T-Account Set 7 on p. 57.

The purposes for which the arrangements to borrow are to be made reflect a remarkable change in official thinking from the time of Bretton Woods to the present. International loans, then, were designed to help countries in balance-of-payments difficulties *not* caused by capital movements, let alone short-term capital movements. And the main idea, then, was that central banks assisted by international loans might be spared painful adjustments through deflationary methods. Under the present plans, the international loans are specifically designed to help countries in difficulties arising from short-term capital outflows. And the main idea is to keep an eye on the aided countries to see that they do not pursue unsound policies, which evidently means that they do not indulge in policies of undue monetary expansion. The better prospects of success with the hot-money trouble than with the basic balance trouble lie in the different sources of funds going abroad and the different urge to domestic credit expansion in the two situations.

The supporting argument can only be summarized here. The danger that a central bank in trouble will use international assistance for an extension of its credit will be much smaller if only "hot money" movements are the cause of its difficulties. This is so because the outflow of speculative funds need not be associated with a reduction in effective demand for goods and services and, consequently, the monetary authorities may not feel compelled to act in support of effective demand. On the other hand, payments for imports or for long-term investment abroad are financed from cash balances held for transactions purposes and hence from funds taking part in the normal circuit flow. One must expect, therefore, that monetary authorities intent upon maintaining effective demand would be pressured or feel duty bound to embark on a compensatory expansion of credit. This difference is a sufficient explanation for the fact that foreign central banks are willing to offer their loans only to compensate for speculative "hot money" movements, and even in these cases wish to insist that their support actions are not made ineffective through unsound policies in the deficit countries.

C. CENTRALIZATION OF MONETARY RESERVES

Just as the establishment of a national central bank can multiply the capacity of a country's banking system to create domestic money, so the establishment of a world central bank could multiply the capacity of the world monetary system to create international reserves and to make the individual central banks shockproof. No wonder, then, that the centralization of central bank reserves appears to many as the best solution of the monetary problems of our time, and to some as an inevitable development in the course of time.

The Keynes plan for the establishment of an international clearing union and the Triffin plan for the extension of the IMF into an international central reserve bank are the best known of the proposals along such lines.

What distinguishes the Keynes plan most significantly from later proposals for centralization of monetary reserves is that it provides for only two means of asset acquisition and deposit creation by the clearing union; namely, gold and overdrafts. Each overdraft by a central bank creates bancor deposits for other central banks and thus creates

new monetary reserves. However, as soon as the central banks in debt to the clearing union succeed in removing their payments deficits and in reversing the flows of foreign payments, the overdrafts will be paid off and the central bank reserves that had been created by their use will be destroyed in the process. Since the rules of the clearing union are supposed to induce the monetary authorities of all countries to avoid both excessive indebtedness and excessive credit balances, and since it is in the members' interest to be neither in debt nor overly liquid, nothing would be more natural than that all would do their best to see that overdrafts be paid off as soon as possible. It follows from this that one could not count on a steady growth of bancor deposits from year to year.

There is one provision in the Keynes plan which could contribute to a secular growth of monetary reserves. It calls for periodic increases in the quotas of the member countries as their foreign trade increases. The fact, however, that a central bank has access to overdraft facilities that increase from year to year does not mean that the bank will actually take advantage of such facilities. The plan does not give the management of the clearing union any prerogative or any instrument to achieve the formation of monetary reserves in case all central bank managers are conservative and prevent balance-of-payments deficits and debts to the clearing union—in ever-increasing amounts—from arising or from lasting any length of time.

The Triffin plan would work in a very different manner in this respect. It, too, provides for overdraft facilities for central banks, but in addition it gives the management of the expanded International Monetary Fund (XIMF) a prerogative to initiate the creation of monetary reserves by means of an aggressive credit and open-market policy. Triffin provides for these open-market transactions by the expanded IMF probably because he has concluded that one may not count on the central banks' demand for IMF loans being of just the right magnitude to bring about the "optimal" supply of monetary reserves. Hence, the Triffin plan enables the management of the IMF to take the initiative and increase or reduce the deposits of the central banks with the IMF through purchases and sales of securities in the open market.

In order to appease those of his critics who fear his plan to be inflationary, Triffin is ready to propose an upper limit for the annual rate of increase of monetary reserves, something like 3, 4, or 5 percent per year. Unwilling to accept an annual rate of growth mechanically fixed at a particular percentage, he thinks of the mentioned numbers merely as an upper limit, and not a minimum, of annual reserve creation.

Implied in this and similar plans is the fact that the centralization of monetary reserves permits a gradual reduction of the part which gold plays in the growing monetary reserves of the world without exposing the system to the danger of collapse. If the monetary reserves of the world are to grow faster than the monetary gold stocks, evidently the share of gold in these reserves must become smaller and smaller. So long as a few key currencies are used as a substitute for gold reserves, as is the case under the gold-exchange standard, there will be the danger of a speculative run on the banks of the key currency countries. This danger is eliminated if deposits with the supercentral bank serve as monetary reserves. On this score, the Triffin plan is only a variant of

the Keynes plan. It is the difference in the methods of reserve creation which, as we have indicated, distinguishes the two plans, despite their superficial or fundamental similarities in other respects.

Many who have compared the two plans have regarded the Keynes plan as more inflationary than the Triffin plan. At best, this is correct only in the short run: if, for example—as immediately after the world war—many countries in desperate need of capital pursue domestic credit policies that compel them to make full use of all overdraft facilities afforded by the Keynes plan. In the long run, however, the Keynes plan provides less possibilities of expansion than the Triffin plan. Keynes, apparently, was more oriented toward the short run than the long—a bent of mind which he explicitly admitted in other connections. Probably he was not greatly impressed with the “danger” of too slow a long-term growth of monetary reserves.⁶

We have mentioned several times how far apart are the different views regarding the need for secular growth of monetary reserves. The extremes are represented by Harrod and Angell: the former wants to manufacture \$3 billion a year, whereas the latter does not think any annual increase would be needed. In this respect a proposal by A. C. L. Day is interesting. He proposes that each central bank be asked every year whether it regarded any net change in its reserves over the year as permanent, or as merely temporary and, therefore, to be corrected subsequently. The algebraic sum of all increases in reserves that are regarded as permanent, minus the year’s gold production, would be the amount of the net new international creation of money that would be regarded as justifiable in the following year. The IMF is to put this amount of international reserves at the disposal of the central banks by making loans to poor countries, possibly by purchasing long-term bonds of the World Bank. In this fashion, according to Day, “the supply of international money would be determined by the amount which countries wished voluntarily to hold.”

What all these plans, beginning with the Keynes plan and including all other prototypes and variants, have in common is that an international financial institution is charged with the function of creating—through the acquisition of claims or other assets (or fictitious assets)—additional deposit liabilities that would be accepted by the central banks as part of their monetary reserves. This is the criterion by which all these plans can be distinguished from the plans of type B—mutual assistance among central banks—which provide for reserves to be borrowed or transformed, but not newly created. To the extent that an international organization, such as the IMF, is to play a role under plans of type B, it would be the role of an intermediary and guarantor.

D. INCREASE IN THE PRICE OF GOLD

The fourth method of augmenting international “liquidity” is fundamentally different from the first three, all of which are somehow connected with borrowing and debt. In the case of the continuation and extension of the gold-exchange standard, additional debts of key-currency countries are to become new monetary reserves for other

⁶ For an analysis of the plans of Stamp, Angell, Day and others, see my study, *op. cit.*

countries. In the case of mutual assistance among central banks, the central banks of surplus countries are willing to accept increasing debts of deficit countries and, if the IMF acts as an intermediary, an exchange of roles takes place whereby the Fund assumes the part of creditor of the deficit countries and of debtor to the surplus countries. The same is true in the case of the centralization of monetary reserves, but in addition new reserves are produced through credit expansion creating deposit liabilities of the international central credit institution.

All this is different in the case of reserve creation through an increase in the price of gold. If, for example, the price of gold is doubled an ounce of gold will be worth \$70 rather than only \$35 and, as long as money supply, commodity prices, and trade volume have not yet increased, the ratio between the monetary gold stock and all those magnitudes with which it is usually compared will be doubled too. There may also be an increase in the annual increments to the gold stocks of the free world through new gold production (and perhaps also through sales from the stocks of the U.S.S.R. and other holders of gold). Without any physical increase in the annual supply of gold, the annual increase in terms of dollar or other currencies would be twice as high as now; with a physical increase in gold production, its money value would be higher still (and the same is true for sales from Russia and from nonmonetary gold stocks).

The two effects of an increase in the price of gold—the up-valuing of the existing gold stocks in the monetary reserves and the increase in the annual additions to these gold stocks—should be kept apart in theory as well as policy. For it would be possible, in principle, to refrain from using the up-valuation of the existing gold reserves as the basis for an increase in the supply of money and credit, whereas the purchase of new gold at an increased price would automatically result in a faster increase in the supply of money. The capital gain through the revaluation of the existing gold stocks can be sterilized. It can be blocked, or declared as a profit not subject to distribution, so that the higher valuation of the monetary gold stocks would not necessarily lead to an increase in the issue of banknotes or in the amounts of deposit liabilities.

If the United States were to use the entire appreciation of its monetary gold stocks to repay foreign obligations, the amount of its monetary reserve would remain unchanged; its net position, of course, would be enormously improved. (Incidentally, its balance of payments on current account would also be somewhat improved, inasmuch as the interest payments on the repaid foreign debts would be saved.) In a country that has held its monetary reserve entirely in the form of foreign exchange, the total value of the reserve, net as well as gross, would remain unchanged despite the doubling in the price of gold, the only difference being that its foreign exchange holdings would have been transformed into gold (not earning any interest). (If central banks had taken the repeated forecasts of an increase in the price of gold seriously, and were selfish enough to have their reserve position improved in the process, they would have tried to convert all their foreign-exchange holdings into gold and the present international monetary system would have long since collapsed.)

Even if, after an increase in the price of gold, none of the countries were to pay out in money the capital gains made through the appreciation of gold reserves (and if, therefore, the flow of funds and expenditures were nowhere directly increased as a result of the appreciation), one could hardly count on all central banks leaving their improved liquidity and increased reserve ratios completely unused. To some protagonists of the increase in the price of gold, for example for Sir Roy Harrod, the improvement in the reserve position of the various nations appears desirable precisely for the reason that their monetary authorities would be more readily inclined to resort to credit expansions in pursuance of full employment and growth policies. Advocates of the increase in the price of gold whose attitude in this respect is quite different would have to propose sterilization measures designed to prevent such credit expansions. Oddly enough, neither Jacques Rueff nor Michael Heilperin, two anti-inflationist advocates of an increase in the price of gold, has hinted at, let alone described, any provisions on the strength of which monetary authorities could effectively resist the strong pressures and temptations to pursue easy-money policies after their gold reserves have all of a sudden jumped to twice their former size.

The increase in the annual accretion to the monetary gold stocks due to an increase in the price of gold is what all advocates of these plans regard as a most desirable effect of the measure. In particular they expect this increased annual accretion to take the place of the present annual increase in American demand liabilities, which during the past 10 years has been the source of supply of "needed" monetary reserves to the free world. The gold stock of the national monetary authorities has increased by \$600 million a year on the average and the dollar-exchange reserves have increased by approximately the same amount. If now the annual increment through new gold were to double in value, a further increase in dollar holdings could be done without. If the accretion of new gold should increase also in physical quantity and therefore be more than doubled, perhaps even tripled, in terms of money, then no one would have to worry any longer about the adequacy of the growth of monetary reserves.

The future supply of monetary reserves would no longer depend on additional dollar debts, and the existing dollar and pound sterling liabilities could be eliminated from the monetary reserves at a single stroke—these are the chief advantages Rueff and Heilperin expect from an increase in the price of gold. Their objective, in other words, is the abolition of the gold-exchange standard and a return to the full gold standard in the sense that gold alone would serve the central banks as cover and reserve. The revaluation of the old gold would enable the key-currency countries to repurchase the present foreign-exchange holdings of the other countries, and the increase in the annual supply of new gold would enable the world to do without future accumulations of foreign exchange as monetary reserves. The immediate goal of abolishing the gold-exchange standard would be to avert the danger of its collapse; Heilperin's ultimate aim is "the full rehabilitation of gold in the international monetary system."

In this regard one may recognize a parallelism between the Triffin and Angell plans, on the one hand, and the Rueff and Heilperin plans, on the other: All four are based on serious doubts regarding the via-

bility of the gold-exchange standard and on the consequent desire to eliminate foreign exchange from the monetary reserves as quickly as possible. According to Triffin and Angell, the foreign-exchange holdings would be converted into IMF deposits; according to Rueff and Heilperin, they would be converted into gold obtained through the revaluation of the gold stocks.

Abolition of the gold-exchange standard is no part of the Harrod plan. To give up the use of sterling deposits as monetary reserve of other countries would be an unnecessary sacrifice, according to Harrod. (A sacrifice for the United Kingdom or for the other countries? Probably for both.) Harrod, therefore, recommends that the gold-exchange standard be preserved. Under his plan, the increase in the price of gold should not serve to replace foreign-exchange holdings by increased gold holdings but rather to supplement them. This is in conformance with Harrod's conviction that under the present system the world would suffer in the future and has suffered in the past from a serious lack of liquidity and that the long-existing scarcity in the supply of money and credit could and should be relieved by the up-valuation of gold.

What kind of assumptions are made by the advocates of an increase in the gold price concerning the demand for gold for purposes of private hoarding and speculation? We know Harrod's views on this point. He expects that, after the increase in the price, gold will flow out of private hoards into official reserves. This expectation seems perfectly justified. The question is, however, how long one could expect such flows to continue. Can one reasonably assume that the hoarders, the speculators, and their wise advisors will believe this up-valuation of gold to be the definitive one, the ultimate one? Would such a belief not contradict all experience? The proposed official increase in the price of gold would be only the second such step for the United States—the first since 1934; for Great Britain, however, this would be the third revaluation—the first since 1949; and for France, the seventh—the first since 1958. For some countries it would be the 10th or 12th official increase in the price of gold within the memory of its older people. If, now, a worldwide increase in the price of gold were to be effected for the sake of an improvement in international "liquidity," would it then not be all too probable that all the smart people—as well as the outsmarted ones—would expect a repetition of this measure every few years? In view of the speed in which these days, with the interdependence between wage-push and demand-pull, any inflationary potential actually materializes, one can hardly doubt that in due course voices would be raised to claim that the gold reserves, though increased through the revaluation, have again become inadequate relative to inflated trade figures. Such claims would be made at least by some of the adherents of a policy of permanent stimulation of effective demand (and probably also by those who savor capital gains on gold-mine shares). It goes without saying that discussions of this sort would give rise to renewed speculation and hoarding of gold.

Under these circumstances, one must seriously question whether an increase in the price of gold would result in a reduction in the long-run demand for gold by private hoarders. The opposite is more likely. What is more important, however, is that the short-run demand for

gold by private hoarders would probably be subject to substantial fluctuations and might lead to the type of massive movements of hot money experienced during the second half of 1960. Since anyone who speculates for a rise in the gold price can always gain but never lose (apart from interest and other carrying charges), this one-sided speculation may assume ever larger dimensions. To change this situation, the present writer, at the end of 1960, presented the Machlup plan for gradual and periodic reductions in the official gold price. If the leading monetary authorities of the free world were to reduce, over a period of several years, the price of gold by, say, three-quarters or 1 percent every 3 months, one could expect that several billion dollars' worth of gold would be dehoarded and offered for sale to the monetary authorities. In order to secure "credibility" for such a program, it would of course be necessary for the monetary authorities to be prepared at all time to sell gold out of their reserves in unlimited quantities at the reduced prices. As soon as the speculators are convinced that they could buy all the gold they wanted, and at a reduced price if they waited a while, they would be transformed from buyers into sellers. After all, any amount of gold they sold they could buy back within a few weeks at a lower price; and, undoubtedly, they would want to postpone such repurchase if they knew that another reduction was imminent.

It would not be necessary to continue the periodic reductions in the price of gold year-in, year-out (except if the monetary authorities were to decide upon a demonetization of gold). The chief objective would be to make it perfectly clear all around that gold hoarders may lose money. If capital losses were just as likely as capital gains, then gold would no longer be the object of hoarding and speculation for a rise. In particular, it would always be possible to avert a run on the reserves of the present key-currency countries and to force a retreat of the speculative forces if the monetary authorities were prepared cold-bloodedly to announce another reduction of the gold price. If there should be another crisis of confidence about the future of the dollar, before the gold-exchange standard is either reinforced or abolished by adoption of one of the other plans, the Machlup plan may yet prove to be an expedient makeshift.

A plan for the reduction of the price of gold can always be made the subject of public discussion without harm of any kind, since such discussion could only calm the speculative fever. This is very different in the case of plans for an increase in the price of gold. There public discussion is always likely to incite speculation and possible runs on the banks, causing serious injury to the credit market and the monetary system. *Discussion* of plans for an increase in the price of gold may generate the danger of a bad *deflation*, with the banks closing their windows, or altogether collapsing, and restrictions imposed on national and international payments. The actual *execution* of plans for the up-valuation of gold reserves may generate the danger of a bad *inflation* with lavish extensions of credit. In addition to all this, the up-valuation would have various highly undesirable effects. For example, there would be unjust rewards for speculators and embarrassing penalties for those who have given credence to the assurances about the stability of the dollar and the pound sterling and who by their trust have several times averted the collapse of the present system. Finally,

the upvaluation of gold would cause completely arbitrary international transfers of income in favor of gold-producing countries, such as South Africa and Soviet Russia. These aspects may be largely political, but they make the plans for gold revaluation still less palatable than they would be solely on account of their economic consequences.

Another proposal for a reduction of the price of gold has recently been made by Arthur O. Dahlberg.⁷ The Dahlberg plan "to reduce gradually by 2 percent per year the U.S. Treasury's purchase price of gold" has other objectives than merely to end the speculation against the dollar and the preference for hoarding gold. The chief objective pursued is to "make money move," that is, to discourage the holding of inactive cash balances (bank deposits) and to increase the velocity of circulation. In previous years Dahlberg had recommended for this purpose that a tax of 2 percent annually be levied on bank deposits and currency. As a substitute for this plan he now proposes to achieve what has been called "dwindling money" by legislating "that all depositors may demand gold for their deposits, and all commercial banks must offer to pay off in gold their demand obligations to depositors."⁸ Since the price of gold is to be lowered by 2 percent per year, he expects banks to debit all accounts with a carrying charge of 2 percent a year, "in line with the falling value of the proffered gold."⁹ In order to prevent people from switching into bank notes and other currency, Dahlberg presents various schemes by which currency too can become subject to periodic depreciation. All these proposals are not pertinent to our subject, the reform of the *international* monetary system. The Dahlberg plan apparently seized upon the idea of the gradual reduction of the price of gold because it could be linked with his pet idea of money that slowly depreciates and will therefore not be used by hoarders as a store of value.

An alternative plan to discourage speculation in gold against the dollar was contained in the minority views on the annual report of the Joint Economic Committee of the U.S. Congress.¹⁰ The Joint Committee minority plan does not contemplate reductions in the U.S. purchase price of gold but rather elimination of the U.S. guarantee to purchase "gold from foreigners at \$35 an ounce or at any other predetermined price." If the United States refuses to purchase gold—and if other monetary authorities will not buy it either—the price of gold in the world market may fall much below \$35, and this would introduce "a new element of heavy risk in speculative operations." According to the minority views, the "termination of the guarantee to buy at a fixed price would be likely to sharply reduce such speculation and, at the same time, stimulate a return of sizable amounts of gold to the United States."

The reasoning behind this argument is correct, provided other monetary authorities join with the U.S. Congress in a declaration which makes their intentions to refuse gold purchases at \$35 an ounce generally credible. If there is serious doubt that gold can always be sold to governmental and monetary authorities, the speculator's risk of loss

⁷ Arthur O. Dahlberg, "Reduce the Price of Gold and Make Money Move" (New York: John de Graff, Inc., 1962).

⁸ *Ibid.*, p. 17.

⁹ *Ibid.*, p. 18.

¹⁰ Annual Report of the Joint Economic Committee, Congress of the United States, on the January 1962 Economic Report of the President, with Minority and Other Views, 87th Cong., 2d sess., (Washington, 1962), p. 125.

from holding gold may be much greater than under a plan of gradual reductions of the official price. (The free-market price of gold may drop by 10 or 20 percent, not just 2 or 3 percent.) But will hoarders and speculators have these doubts? That the U.S. and other governments no longer guarantee to buy gold means neither that governments will in fact refuse to buy gold nor that people will believe such intentions. The practical difference between this termination of guaranteed purchase, according to the minority plan, and the periodic reductions of the selling and purchase price of gold, according to the Machlup Plan, lies precisely in the credibility of the official announcements. The price reductions cannot be disbelieved if the authorities actually offer to sell unlimited quantities of gold at the announced price.

Two recent proposals for gold price increases purport to avoid most of the disadvantages of the gold-price-raising plans discussed. The authors, Kiyozo Miyata¹¹ of Japan and Paul Wonnacott¹² of the United States, arrived independently, but by the same train of reasoning, at the plan to increase the price of gold gradually by about 2 percent a year. The main features of the plan are that there must be no uncertainty about the future price of gold, that the magnitudes and dates of the price increases must be announced in advance, and that the annual percentage increase must be less than the interest rates in the money markets. In the absence of uncertainty there will be no speculation against the dollar, and with the gold appreciation less than the interest rate there will be no gain in gold hoarding, but rather a definite carrying cost. (In order to avoid even small jumps in the gold price, the increases may be quarterly or monthly. Alternatively, there might be a spread of about 2 percent between the official buying and selling prices of gold.) After the fear of currency devaluation in an indefinite future by indefinite proportions is eliminated, people will stop hoarding gold and start dehoarding. At least this is what Miyata and Wonnacott expect. The advantages of gold revaluation—annual increases in international reserves apart from the annual sales of new gold to the monetary authorities—can therefore be had without the disadvantages and dangers that are associated with the plans of substantial price adjustments.

This plan deserves consideration, especially if pressures for gold revaluation increase in force, if the resistance to increase international reserves by other methods remains unyielding, and if there is agreement that larger reserves are really needed.

E. FREELY FLEXIBLE EXCHANGE RATES

We now come to the fifth method for "solving" the problems of the present international monetary system. Just as the fourth method was seen in sharp contrast with the first three, the fifth is fundamentally different from the other four. The extension of the gold-exchange standard, mutual assistance among central banks, centralization of reserves and of reserve creation, and finally the increase in the price of gold—all these plans were designed to serve the same objective;

¹¹ Kiyozo Miyata, "A Proposal To Increase the Price of Gold," *Banking* (Osaka), No. 176 (1962) [in Japanese].

¹² Paul Wonnacott, "A Suggestion for the Revaluation of Gold" (mimeographed draft, New York 1962).

namely, to increase "international liquidity" so-called. The introduction of freely flexible exchange rates, on the other hand, would relieve the central banks once and for all of any functions in the international payments system and would remove any requirement to hold reserves for foreign payments. This is so because equality of receipts and disbursements would be secured through the free adjustment of foreign-exchange rates to the supply-and-demand situation of the moment.

Gold and exchange reserves are needed only if the exchange rates are not permitted to move to the level that would equilibrate the market at the moment. There is always a price at which the quantities supplied and demanded are equal, though this price may be subject to fluctuations from day to day. If exchange rates have to be maintained at fixed levels, then surpluses and deficits will necessarily occur and must be compensated for by the monetary authorities through their purchases or sales of gold or foreign exchange at the fixed prices. In order to be able to meet more enduring deficits (that is, in order to meet a prolonged excess demand for foreign exchange) at fixed exchange rates, the monetary authorities need gold or exchange reserves. Deficits in the balance of payments would usually be short-lived if the central bank were to permit a reduction in the country's effective demand, that is to say, if it did not allow credit expansion to replace that part of the domestic money that had disappeared from circulation when it was paid to the banks by the purchasers of foreign exchange. If, however, effective demand is maintained at its level in spite of the payments to foreign countries, then the deficit (that is, the excess demand) in the foreign-exchange market can be of long, or indeed indefinite, duration. Without fortuitous change or deliberate adjustment, even the largest monetary reserves would eventually be exhausted.

Under such circumstances it is questionable whether a system of fixed exchange rates is at all tenable and, if not, which system is to be preferred, eventually adjustable rates or freely flexible rates. Strictly speaking, this does not exhaust all possibilities: free flexibility can, for example, be confined to a predetermined spread; or it may be restrained by official compensatory transactions in the foreign exchange market if the monetary authorities believe they should avoid "unnecessary" or "excessive" fluctuations in the rates. Such systems of "freely flexible exchange rates with reservations" are widely regarded as more practical and more acceptable than perfectly free rates. For one can hardly expect monetary authorities to abstain under all circumstances from interfering in the market through their own sales or purchases. Yet, the differences between entirely free and predominantly free exchange rates may be disregarded in the present discussion. We shall confine ourselves here to a comparison between the three main types: fixed, occasionally adjustable, and freely flexible exchange rates.

Fixed, nonadjustable exchange rates are possible only if the following prerequisites are met:

1. *Pegging operations*.—The monetary authorities have to sell and to buy foreign exchange in any quantity at the fixed prices, that is, they must be prepared to see their exchange holdings grow without limit when there is an excess supply, and to see them dwindle without restraint when there is an excess demand.

2. *Domestic circulation.*—The monetary authorities have to expand or contract domestic circulation according to the balance-of-payments situation, that is, they must be prepared to eliminate an excess supply of foreign exchange by creation of domestic money and through the associated increase in domestic prices and incomes, and to eliminate an excess demand for foreign exchange by destruction of domestic money and through the associated reduction in domestic prices and incomes.

3. *Foreign payments restrictions.*—The monetary authorities may for a limited period compensate for some omissions or imperfections in the first two requirements by imposing restrictions on international payments, that is, by prohibiting or restricting certain international transactions that contribute to an excess supply or excess demand in the foreign exchange market.

These prerequisites are usually not fulfilled nowadays. Especially the second requirement—the preparedness to inflate or deflate for the sake of exchange stability—is rarely satisfied. Most monetary authorities refuse to match an inflation that is going on abroad; they prefer to stem the inflow of foreign exchange by an up-valuation of their currency. Likewise, they refuse to submit to a deflation that might be prescribed by the state of the balance of payments; they prefer to cope with a continuing outflow of foreign exchange by resorting to a devaluation of their currency. Thus, it appears that foreign exchange rates “fixed until further notice” are the closest approximation to the former ideal of irrevocably fixed exchange rates.

For an evaluation of the system of occasionally adjustable exchange rates—the system with adjustable peg, as it is sometimes called—it will be necessary to find out just what the conditions are under which monetary authorities decide that an alteration in exchange rates would be appropriate. Under the provisions of the I.M.F., exchange rates should be adjusted only in the case of “fundamental disequilibrium.” The diagnosis of fundamental disequilibrium is, however, largely a matter of judgment, and ordinarily the views of experts in this regard are rather divergent. By and large, a disequilibrium is regarded as fundamental if in the country concerned the prices of goods and services relative to the prices prevailing in the countries with which it trades are out of line with the fixed exchange rates between the particular currencies. The trouble is that this condition cannot be ascertained through statistical observation of relative prices and that the actual existence of substantial excess supply or excess demand in the exchange market appears to be the ultimate criterion of disequilibrium. If such a disequilibrium has existed for a very long time and the diagnostician has little hope that it can be removed without inflation or deflation of price and income levels, then he decides to call it “fundamental.”

The comparative advantages or costs of the system of occasionally adjustable exchange rates—of exchange rates fixed until further notice—can be judged only after a few questions are raised and answered. We shall address ourselves here to only two questions: (1) How probable is it that a “fundamental disequilibrium” in the balance of payments emerges in a country that pursues credit and fiscal policies subservient to full employment and growth policies? (2) What are the most probable reactions of speculative capital to disturbances in

the balance of payments in a country where there is a regular practice of adjusting exchange rates that are regarded to be out of line?

The first question refers to countries pursuing full-employment and growth objectives by means of expansionary credit and fiscal policies. If the monetary authorities of these countries attribute every lapse from full employment and every retardation of economic growth to an inadequacy of effective demand, and accordingly proceed to treat the supposed deficiency with injections of new money, then the additional buying power created in this fashion will cause a chronic ebb of foreign exchange. To remove this fundamental disequilibrium—in the form of a permanent excess demand for foreign exchange—devaluation will be the ultimate prescription.

The second question suggests a rather obvious answer. If it is generally known that the official exchange rates will be adjusted whenever a fundamental disequilibrium has developed, speculative capital will move from countries where foreign exchange is scarce to countries where foreign exchange is in plentiful supply. This must be expected since owners of liquid funds will wish to avoid the capital losses from holding a currency likely to be devaluated and will not want to pass up opportunities of capital gains from holding a currency likely to be up-valued. The longer the time for which the adjustment of unrealistic exchange rates is postponed the greater will be the nervousness of hedgers and speculators; and, since the short run gains from the expected changes in exchange rates will look far more attractive than the returns on productive investment, ever-increasing amounts of investable funds will be transformed into speculative funds. Inventory policies of industrial firms, especially stocks of imported or exportable materials and products, as well as production and shipping schedules will be increasingly affected by anticipations of the official changes in exchange rates. In short, exchange speculation will no longer be confined to liquid funds but will spill over to all economic decisionmaking in production and trade.

That all this is apt to cause damage to the economy can hardly be doubted. The only open questions concern the size of the damage attributable to the postponement of the exchange-rate adjustment and the length of the "optimal" period of putting off the decision to adjust the peg. Once it has become clear that a "disequilibrium" in a definite direction is developing and that an adjustment of the exchange rate may eventually prove inevitable, what advantage can there be seen in postponing the adjustment for a long time, or indeed what sense can there be in postponing it at all, even for a brief period? Why should occasional or periodic adjustments be better than daily adjustments, that is, freely flexible exchange rates?

While the list of names of eminent economists who advocate flexible rates is a long one, their arguments in its support are not the same. Some of them, for example, do not question the superiority of fixed over fluctuating exchange rates provided that absence of direct controls in foreign-exchange dealings, foreign trade, and foreign payments is guaranteed unconditionally. If, however, fixed (or temporarily fixed) exchange rates are secured by restrictions and direct controls, and if monetary authorities are inclined or induced to stick to official exchange rates that have become quite unrealistic and can be maintained only with foreign-exchange controls, then the ranking of

systems is reversed and freely flexible exchange rates are given preference over fixed ones.

Almost all representatives of this way of thinking recognize that a fully autonomous monetary policy is incompatible with the maintenance of fixed exchange rates. But we must distinguish those who recommend an autonomous monetary policy—a credit policy independent of the balance of payments—from those who do not recommend it but regard it as a given unalterable fact with which realistic observers should reckon. Members of the first group are convinced that the rate of employment and the rate of growth can be increased or supported by expansionary credit and fiscal policies. This is why they favor an autonomous monetary policy with freely flexible exchange rates. Members of the other group question the theory that injections of additional purchasing power can secure higher rates of employment and faster rates of growth in the long run, but they know that the most influential men in charge of the economic policies of certain nations believe in this theory and will not refrain from applying it. Application of this theory, however, implies autonomy of monetary policy—a policy supposedly in the service of “internal balance”—and therefore longrun incompatibility of fixed exchange rates. Hence, even non-believers in the blessings of independent monetary policies regard freely flexible exchange rates as the best way out of the dilemma. (Besides the two groups mentioned, there is a third one, consisting of those economists who believe neither in “accelerated growth through money creation” nor in “international coordination of monetary policies,” but have different reasons for advocating freely flexible exchange rates.)

A strong argument in opposition to flexible exchange rates is based on the fear that the resistance to credit inflation may be weakened under such a system. This possibility should certainly be taken into account. The most essential and most difficult task of a central banker is to prevent inflation. Overindulgence in easy-money policies is apt to lead to a loss of reserves if exchange rates are pegged, and to a loss in the foreign market value of the currency if exchange rates are free to move. Which of the two is the greater embarrassment to the central banker and, thus, will stiffen his backbone in resisting the incessant political pressures for maintaining easy money?

Some economists hold that, once flexible exchange rates become the accepted practice or institution, currency depreciation will lose most of its terror, and all bars to inflation will be down. Other economists are convinced that, if fixed exchange rates are held sacrosanct, the fear of continuing or complete depletion of foreign reserves induces, not abstinence from easy-money policies, but adoption of exchange restrictions. And there is widespread agreement that, if inflation is bad and restrictions are evil, the combination of the two is cancerous. Is it likely, however, that economists will agree on just what degree of inflation might be acceptable as a price to pay for complete absence of direct restrictions of imports and payments? Assume our judgment of the heads, the hearts, the backbones and the guts of the monetary managers of a country leads us to expect that under a regime of fixed exchange rates they would hold the rate of price inflation down to 3 percent a year and would check the resulting drain on gold and exchange reserves by prohibiting certain capital outflows and adopting certain quantita-

tive restrictions on imports; whereas the same managers under a regime of perfectly free exchanges would allow the rate of inflation to rise to 6 percent a year. Which outcome would be preferable? It would be hard to obtain agreement on the value judgment on the basis of which this question could be answered. And of course even the question presupposes that there can be agreement on the probability judgment concerning the central bankers' differential propensities to inflate under various conditions.

The judgments in question are even more complicated, because the attitudes of the central bankers and treasury officials who run the show at the time being may be less important than the attitudes of those who are likely to replace them when they are dismissed. Convinced and consistent anti-inflationists may possibly be kicked out precisely because of their conservatism, and be succeeded by men more willing to compromise. This probability must be taken into account when the "differential propensities to inflate" under various conditions are judged.

The chief and most frequently mentioned argument of the opponents of exchange rate flexibility concerns the risks of foreign trade under fluctuating exchange rates. Reference to the possibility of hedging on better developed forward markets do not completely answer this objection; more telling is the reference to the probability that the risks of exchange *restrictions* imposed to "protect" fixed exchange rates may be greater than the risks of exchange *fluctuations* in free markets, and that the effects of restrictions may weigh more heavily than the cost of hedging against the risk of fluctuations.

The advocate of fixed exchange rates points to the great benefits which domestic trade derives from the national unity of the currency, from its universal acceptability at par, the par-collection of bank checks in all cities and different parts of the country, and the certainty that this will not be changed in the future. Then he infers that fixed exchange rates confer similar benefits to international trade. A correct reply would not deny this inference, but would point to an essential difference between intranational and international monetary arrangements—the same difference, incidentally, which prevents those economists who unconditionally advocate adoption of freely flexible exchange rates among different countries from advocating flexible exchange rates also among the different districts or provinces within a country. The difference is that nations claim, and districts or provinces do not claim, "sovereignty" in credit policy.

A uniform currency in a country is possible only as long as no part of the country has autonomy in the creation of money. If particular provinces or districts undertook to support regional growth or full employment by enlarging effective demand through regional credit creation, the national unity of the currency could not long be maintained. The United States could not for long keep a uniform dollar if, say, Mississippi and Kentucky, started autonomous credit and fiscal policies to accelerate their economic growth by printing greenbacks and creating bank credit. The preconditions for the maintenance of fixed exchange rates among different countries and for the maintenance of a uniform currency for the different parts of one country are essentially the same, to wit, that no country and no part of a country is independent in the manufacture of money.

It is really not necessary to take a firm position in the controversy and come out either on the side of fixed exchange rates or on the side of freely flexible exchange rates. It may suffice to insist on consistency and to have it understood that fixed exchange rates can be maintained only among countries which pursue monetary policies coordinated with one another, rather than policies independently designed to obtain "internal balance" regardless of external effects. This means that countries which are not prepared to subordinate their monetary policy to the requirements of external balance should accept flexible exchange rates.

The incompatibility of expansionary full-employment and growth policies with fixed exchange rates is recognized by several central bankers. They stress that economic growth and full employment can be obtained better, if not only, by other means than expansion of bank credit and budgets. They are tactful enough not always to repudiate the politicians' commitments to monetary and fiscal measures for full employment and accelerated growth; but they are forthright in giving priority to the task of safeguarding the stability of the currency and in accepting the balance of payments rather than the employment rate and growth rate as ultimate guide to their credit policies. From such a position one may consistently take a firm stand against the unpegging of exchange rates and in favor of the maintenance of the fixed-exchange standard. Those, however, who are prepared to put the money-creating power of the banking system at the disposal of full-employment and growth policies regardless of the state of the balance of payments cannot in all consistency oppose exchange-rate flexibility.

Yet, it may be too narrow to trust nothing but logical consistency and well-thought-out economic programs; there may be some sense in placing confidence in the outcome of a series of inconsistent pragmatic improvisations. It is possible, for example, that monetary authorities, despite repeated declarations and assurances to the effect that their policy shall first and foremost serve the full-employment and faster-growth objectives proclaimed in political platforms, will cast aside these goals in the interest of external stability of their currencies when, after serious losses of monetary reserves, it becomes manifest "what's up." In other words, independence and autonomy of monetary policy are sometimes unceremoniously dispensed with when things get really hot. This is why some economists who admit that independent credit policies are incompatible with fixed exchange rates, and who know the strength of the nations' propensity to be independent, have nevertheless remained faithful advocates of fixed exchange rates. Such faith—resting on the hope that the independence of monetary policy will be given up eventually—perhaps reflects less realism than it is credited with, considering the large number of devaluations in the last 15 years.

It is neither necessary nor probable that there will be in the foreseeable future a formal decision to adopt an international monetary order for the entire free world. There are, however, regional groups of countries that are linked also through a common monetary ideology; these countries may well agree on certain monetary arrangements. If, for example, the members of the European Economic Community are agreed on the principle that their credit and fiscal policies should be coordinated so that through concerted central-bank action a high

degree of conformity can be achieved in the supply of money, then stability of exchange rates among these countries can be secured without serious trouble. On the other hand, if no such parallelism in monetary policy can be achieved between a conformist group of countries and countries that refuse to conform, it would be unreasonable to count on fixed exchange rates being maintained in the long run between the conformist countries and those that "go it alone." Rather than wait until a fundamental disequilibrium emerges and forces countries into delayed adjustments of their exchange rates, it might be better for all parties concerned if the external values of the autonomously managed currencies could remain flexible. Fixed exchange rates among countries with coordinated monetary policies, and freely flexible rates among countries pursuing autonomous policies—this appears to be the maxim consistent with the theorems of monetary economics.

Theorists often complain about the conservatism of practitioners who are quick to reject the theorists' proposals as impractical. Sometimes these proposals are impractical only because the "practical" men are unwilling to consider them seriously. Sometimes however the theorists overlook or disregard circumstances, customs, practices, or incidental problems, which seem to be important to the practical man. In the case of the proposal for unpegged exchange rates several unsolved questions must be expected to arouse misgivings on the part of the practical banker; they will have to be dealt with and shown to have satisfactory answers before one may hope to see the objections withdrawn.

Whereas central banks with very small foreign reserves may find it relatively easy to remove the peg holding their exchange rates, especially when faced with balance-of-payments difficulties at the exchange rates hitherto fixed, a central bank possessing a large reserve—be it in the form of gold or foreign exchange—may find it very hard to justify a decision to unpeg the exchange rate. The decision would be difficult both in a surplus and in a deficit position of the market balance of payments.

In a *deficit* position, why should the monetary authorities refuse to sell from their abundant reserves? Why should they remove the peg and let the prices of foreign currencies and of gold rise to the levels at which current demand is reduced to the flow of current supply? Why should they allow their large reserves to remain unused, locked up, and unavailable to those who have an effective demand for them? In a *surplus* position the authorities may have a somewhat better case for the removal of the peg. For they may argue against a further accumulation of foreign reserves with its normally inflationary effects upon the economy. On the other hand, will not the refusal to purchase any more gold or foreign exchange depress drastically the prices of foreign currencies and produce cries of anguish on the part of exporters receiving smaller proceeds and of producers competing with cheaper imports? And how should the central bank justify the writedown of the book value of its foreign reserve and how can it account for this severe capital loss?

One possible answer to these questions is that the possession of large gold and foreign-exchange holdings is not an appropriate position for a country to start a system of exchange-rate flexibility. If this really is the answer, the proponents of the system will have to furnish pre-

scriptions for central banks concerning the best methods of reducing their foreign reserves in preparation for "U-day," the day of unpegging. The key-currency countries are special cases calling for special prescriptions. Let us assume, contrary to fact and only for the sake of the argument, that the monetary authorities in the reserve-currency countries would like to get rid of their heavy responsibilities and that they have decided that the abolition of fixed exchange rates would be a good way of doing so. Could they as honest bankers disappoint the confidence of their depositors, refuse to sell gold and allow the foreign values of their currencies to drop? Could they ever take the initiative in a drive to exchange flexibility if this were taken as a breach of explicit or implied promises?

To raise these questions is not necessarily to doubt that they permit of reasonable answers, but only to draw attention to the need for discussion. Speculating about the possible lines which one of the answers could take, one might suggest that the legal and moral obligations of reserve-currency countries could be fulfilled out of their existing gold holdings if all foreign creditors were given an option to receive gold at the present gold parity. Indeed, such a procedure, to the extent that the option would be exercised, could relieve the reserve-currency countries of sterile gold hoards as well as of interest-bearing foreign debt. After all, after a general unpegging of the gold price and of the exchange rates, there would be no special reason for any of the monetary authorities to hold on to gold stocks.

This realization raises another question which demands study, namely, the question of the future of gold under a system of freely flexible exchange rates. The refusal of monetary authorities to purchase gold, and their unrestrained desire to sell off all their gold holdings, could easily destroy the value of gold over night. Only their concerted effort to support the price of gold by holding on to it, by refraining from throwing it onto the market for whatever price it may fetch, can avoid transforming—for some time—the "precious metal" into a virtual "non-valeur." For there simply would not be enough private buyers and enough liquid funds to absorb within a short time all the gold now used as monetary reserves.

Whether it will ever come to the demonetization of gold depends on which ideology will win. In a world in which the discipline of the gold standard is felt chiefly as a nuisance, and monetary management is regarded primarily as an instrument of national growth-and-employment policy, not even the most inventive representatives of vested interests will be able to maintain the myth that the demonetization of gold is "impractical."

At the moment, however, the verdict of "impracticality" cannot be appealed to a higher court of political judgment. If it is suspected that a system of flexible exchange rates may weaken or subvert the people's faith in the monetary role of gold, the system will be opposed with fanatic fervor. This places its advocates on the horns of a dilemma. Either they must build into their plans a solid program to safeguard the value of gold or they must resign themselves to the fate that their plans will continue to be scorned as the utterly impractical notions of inexperienced theorists not taken seriously by "anybody."

THE FUTURE OF INTERNATIONAL PAYMENTS

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IV. CONCLUDING REMARKS

We have reached the end of our survey. If it perhaps has failed to describe and discuss *all* of the plans for reform of the international monetary system which have been presented in recent years, at least the most widely discussed plans have been included in our review. In addition, in exploring the preconditions of adopting these plans, the ways in which they might work if adopted, and the most probable consequences to be expected from their operation, we have made enough general statements applicable to the explanation and evaluation of others plans not treated here.

The author has abstained—or at least tried to restrain himself—from making blunt value judgments. If nothing else, he has avoided calling any of the plans impossible, absurd, or foolish. On the other hand, he has not concealed either his acceptance or his rejection of certain theories and presuppositions. Some readers may be disappointed that the author has not come out in favor of any one particular plan. There is, however, a good reason for such reticence or caution. An intelligent choice would have to depend on many conditions, and one cannot ascertain whether and to what extent they are fulfilled. What under certain circumstances would appear as the best solution may under other circumstances be hopelessly wrong. In economic policy decisions much depends on how they fit in with other measures adopted and objectives accepted. Monetary policy, credit and fiscal policy, commercial policy, wage policy, investment policy, growth policy, employment policy, countercyclical policy, etc., etc., are so closely related to one another that it would not be possible to formulate a rational policy concerning the international monetary system irrespective of all other areas of economic policy.

Policies regarding the international monetary system must take account of the measures and intentions of the governments of a multitude of nations. The theories entertained by influential monetary experts will, of course, be important, but what is really decisive in the relevant considerations are the notions, the beliefs, the courage, and the powers of persuasion of central bankers, ministers of finance, and other leaders of economic policy in the major countries. Consequently, one cannot possibly expect that there will be one particular among all plans for the international monetary system that may be singled out and proclaimed as the best under any set of conditions.

To say this is not to make a virtue of indecision. Sooner or later, and more likely sooner than later, the reform of the present system will have to be taken up seriously. The stopgap solution initiated at the Vienna meeting of the IMF and formalized in the "General Arrangements To Borrow" may tide us over the worst difficulties for some time, possibly even for several years. To be sure, we should never expect a solution that is really definitive, but perhaps we may hope for one that can dispel for a longer time the apprehensions, nervousness, and fears of collapse.

THE FUTURE OF INTERNATIONAL PAYMENTS¹

Present conditions call for a reconsideration by the highly developed, industrialized, wealthy countries of the Western world,² of the future of their arrangements for the conduct of their international payments. There are many reasons why such a review is now needed. The dollar has ceased to be a universally scarce currency and seems liable now, like other currencies, to recurrent periods of weakness; the administration in the United States is in any case engaged in a review of the principles of U.S. economic policies at home and abroad; in Europe a solution is sought for the problem of reconciling the European Economic Community (the Six) with the European Free Trade Area (the Seven); and throughout the Western countries there is a growing realization of the need both to stimulate economic growth at home and to aid the economic development of the underdeveloped countries of Asia, Africa, and South America. Perhaps as important as any of these factors is the possibility of a far-reaching disarmament agreement between the Communist and the Western countries; if this greatly desired event were to be realized, there would be many inevitable disturbances and strains in international payments as resources were, by one means or another, transferred from military to peaceful uses. It is of the first importance that there should be a system of international payments which would cope in a flexible manner with the very extensive readjustments that such a large disturbance would involve.

The purpose of this article is to suggest some improvements in the machinery for international payments between the main national currencies of Western countries. But a financial system is only a means to an end; and in order to decide what principles one wants to adopt for a payments system one must first know what are the basic objectives which one wishes to achieve by means of it. Now in my view the basic objectives of a reformed system of payments between the Western countries fall into three main groups: Freer trade; more liberal foreign aid; and a higher rate of domestic economic expansion.

In commercial policy the Western countries should now negotiate among themselves a substantial further reduction of all the obstacles which they place on imports from each other, and they should extend these reductions of barriers to imports on a most-favored-nation basis to their purchases from the underdeveloped countries of Asia, Africa, and South America without demanding any very substantial quid pro quo in the form of much freer access to the markets of these underdeveloped countries. President Kennedy's tariff bill which has now passed the House of Representatives would provide an ideal means to carry out this policy.

¹ A revision of an article originally published in the *Three Banks Review*, June 1961.

² The countries which I have in mind are basically the countries of Western Europe and North America, though for some purposes we should add to the list some other countries like Australia and New Zealand—and possibly also Japan. Purely for the purposes of simple exposition I will call these "the Western countries."

Such a policy is a necessary condition for the United Kingdom to join the European Common Market. For there are some real difficulties in the way of the United Kingdom simply joining the six. One of the most important of these difficulties concerns the position of the underdeveloped countries in the British Commonwealth. At present there is free entry into the United Kingdom market for the products of such countries. At a time like the present, when there is increasing hope that the British Commonwealth can become more and more a real club of developed and underdeveloped countries from all parts of the world, it would be particularly unfortunate if the United Kingdom instead of letting in Indian manufactures free and taxing German manufactures had to let in German manufactures free and to impose the common European tariff and quotas on Indian manufactures. The best way of avoiding such a conflict is a general movement toward freer imports from all sources, as well as from each other, into all the developed countries of the West.

There is a need also for a substantially increased program of financial aid from the developed countries of the West to the underdeveloped countries of Asia, Africa, and South America. These countries are more and more determined to start a process of economic growth through industrialization and heavy investment in capital development. A large-scale flow of financial aid from the rich countries to these poorer and underdeveloped countries is the only way in which this process can be initiated without the rigid controls over private consumption and the grinding poverty which the finance of their own capital development solely out of their own domestic resources would involve.

It is important that such aid should be given in an untied form—the rich countries should provide financial aid to the poor countries, and the poor countries should be free to spend the aid on procuring the sort of capital equipment which they most need from whatever is the cheapest source. The country which should provide the aid because it is rich is not necessarily the country which can produce most cheaply the particular goods most needed by the country which receives the aid. Moreover, a system of tied aid may well cause the developing country to employ most wasteful forms of technique in its economic development. Machinery made in the United States, for example, is probably specially designed to save labor (which is scarce in the United States) even at the expense of employing much capital (which is relatively plentiful in the United States). Machinery to be used in India, for example, should be specially designed to save capital (which is scarce in India) even at the expense of requiring much labor for its operation (since labor is plentiful in India). Dollar aid which is tied to dollar machines may, therefore, be an inappropriate way to encourage capital development in India. It might, for example, be much better that a dollar loan to India should be spent on Japanese machinery, or should be used to finance the wages of Indian workers employed to produce by very labor-intensive methods a dam for irrigation purposes in India. In this latter case the dollar proceeds of the loan to India would be available to finance a general excess of India's imports over her exports during the process of capital development. Such Indian imports might well include some of the foodstuffs which the workers employed on constructing the dam would purchase with their wages.

There is one more basic requirement for a reformed system of international payments. In present-day conditions it is necessary that the national governments of the Western countries should feel free to use their domestic financial policies for the promotion of full employment, price stability and economic growth in their economies without having to pay too much regard to their balances of international payments. The simultaneous achievement of the three domestic goals of full employment, price stability and economic growth is difficult enough. The principles which must govern such action are now fairly well known. To maintain full employment the total level of money demand must be raised (by a cheap money policy, lower taxation and higher government expenditure) so long as there is not sufficient demand to absorb the whole of the economy's potential output and must be lowered (by the opposite financial measures) if there tends to be too high a level of money expenditure relative to the available output of goods and services; to prevent a high level of demand from leading to a perpetual inflation of money prices and costs steps must be taken (perhaps the most difficult task of all) to prevent money wage rates rising more quickly than the general productivity of labor; and to set the financial background for economic growth monetary and fiscal measures must be taken to stimulate expenditure upon new capital development and to restrain expenditure upon goods and services for current consumption.

In all conscience this task is sufficiently difficult. It becomes impossible if the national governments have, in addition, to make it a primary objective of their banking and budgetary policies to maintain an equilibrium in their international balances of payments. According to the rules of the old-fashioned gold standard game, a country with a surplus on its international balance of payments should inflate its domestic money income, prices and costs until its demand for imports had so grown and the availability of its exports so declined that its balance of payments was in equilibrium once more; and, conversely, a deficit country should deflate its domestic incomes, prices, and costs. But in fact this no longer happens. As the histories of the United States in the first 10 years after the war and of Germany in the last 5 years show, a country which has a surplus on its balance of payments does not inflate domestically in order to get rid of this surplus; on the contrary, it uses its monetary and budgetary policies so as to achieve as far as possible domestic full employment, price stability, and economic growth. Germany, for example, in recent years has been very successful in achieving this combination of domestic objectives, and she has shown no signs of willingness to abandon these domestic objectives for a domestic inflation which would remove the surplus on her balance of payments. Deficit countries which are losing their reserves of gold and foreign exchange have not, of course, found it so easy merely to disregard their balance-of-payments situation. But they have in recent years been extremely unwilling to give up their domestic monetary and budgetary policies for full employment and economic growth. They have tried often to avoid the need for deflation by imposing restrictions on their imports, cutting down their obligations on foreign aid, tying the aid which they give to expenditures on their own products, borrowing from abroad themselves, and so on.

In my opinion it is right that the national governments of the Western countries should use their domestic monetary and budgetary pol-

icies primarily to achieve their domestic aims of full employment, price stability, and economic growth. These are outstandingly important objectives and their attainment requires the well planned use of effective weapons. In the modern world these functions are the functions of *national* governments; there are no *supranational* governments or agencies designed for this purpose; even in the European Economic Community the objectives of full employment, price stability, and economic growth will remain primarily the responsibility of the national governments of the constituent countries; and until we have some form of supranational government for these countries with its own single currency, its own central bank, and its own system of taxes and public expenditure, these functions must remain primarily the responsibility of national authorities.

What is needed for the Western countries is a system of international payments that will allow the deficit as well as the surplus countries to devote their domestic monetary and budgetary policies primarily to the maintenance of domestic full employment, price stability, and economic growth. Moreover, the system must be such as to enable them to press ahead with the removal of tariffs and other obstacles to imports; they must not, that is to say, be driven to restrict imports simply in order to restore equilibrium to their balance of international payments. Finally, the system must be such as to enable them to develop an enlarged program of untied financial aid to the underdeveloped countries; they must not be under any compulsion to cut down their foreign aid, or to tie their foreign aid to their own national exports, as a means of putting their balance of payments into equilibrium and stopping a drain on their monetary reserves of gold and foreign currencies.

How far-reaching these requirements are can perhaps best be seen from the experience of the United States over the last year or so. The U.S. balance of payments has been in deficit. She has not increased her tariffs or intensified her restrictions on imports to put a stop to her loss of gold reserves; and she is much to be commended for not having done so. We must not return to the undiluted principle that deficit countries can restrict imports from surplus countries. This might well mean that the United States being in deficit could restrict imports from the underdeveloped countries. The United States has refrained from actually restricting her imports on balance-of-payments grounds; but it is most desirable that she should move in the opposite direction and lead the countries of the Western World in a general agreement to reduce trade barriers. President Kennedy's tariff bill marks a most notable step in this direction. But will the United States in fact be able to take such an initiative in reducing the barriers to her imports while she is engaged in putting right a serious deficit on her balance of payments?

Recently the United States has tended to tie the aid which she has given to underdeveloped countries more and more to U.S. products, as a method of reducing the strain on her balance of payments; and attempts have been made to persuade the Germans and other European countries with surpluses on their balances of payments that they should take over an increased share of the burden of the finance of aid to underdeveloped countries. No doubt a strong case can be made out for the view that the Germans and others should contribute more to the finance of foreign aid; but this case should rest on the fact that

the Germans are rich and have a high standard of living and not on the fact that they have a surplus on their balance of payments. The principle that the countries with surpluses on their balances of payments should aid the countries with deficits on their balances of payments can lead to the ridiculous result that a poor territory (like Ghana) should aid a rich territory (like the United Kingdom) if the former happens to have a surplus on its balance of payments (due to a high world demand for cocoa) while the latter has a deficit (because the money cost of its manufactured exports is unduly inflated). United aid should be planned on an enlarged scale from the rich to the poor countries, and balances of payments should somehow be made to conform to these requirements. But can the United States with the present strain on its balance of payments be expected to take the lead in initiating such a reform, unless some alternative system for adjusting international payments can be found?

Finally, it is of the utmost importance that the U.S. Government should take early and effective monetary and budgetary measures to reflate demand inside the United States, to stimulate capital investment and economic growth, and generally to expand the domestic economy to absorb the quite appreciable amount of unemployed labor that has appeared recently. Such action is of central importance not only for the citizens of the United States themselves but also for the rest of the Western countries and of the underdeveloped countries. The maintenance and expansion of demand in the United States can greatly affect the exports of those other countries. In my view there is no doubt that the U.S. Government can organize a domestic economic expansion by means of its monetary and fiscal controls over the general level of demand. But may not the domestic expansion in the United States by expanding the U.S. demand for imports put a further strain on her balance of payments? Will the United States be in a position at the same time to give the necessary lead to the other Western countries in reducing their barriers to imports and in enlarging a program of untied aid to the underdeveloped countries?

The answer to this set of problems must, I think, be that the Western countries should make a freer use of alterations in the rates of exchange between their national currencies in order to preserve equilibrium in their balances of payments. Extreme advocates of this remedy would argue that if the rates of exchange between the main Western currencies—the dollar, the pound, the mark, the franc and so on—were allowed to fluctuate completely freely in uncontrolled foreign exchange markets, the problem would be easily solved. I shall proceed in this article: first, by stating as convincingly as I can the case for holding this extreme view; second, by examining certain criticisms which have been made of this view; and, thirdly, by proposing an actual scheme for international payments which attempts to take account of the many points made on both sides of this argument.

First, then, the case for freely fluctuating exchange rates. The statesmen of the Western countries, so it is argued, should concentrate their attention upon commercial negotiations for a general removal of their trade barriers against imports, upon a concerted program of untied foreign aid, and upon domestic financial policies to promote full employment, price stability, and economic growth. Let them forget their balance-of-payments problems. Of course, from time to time some of them will be in deficit and some in surplus on their bal-

ances of international payments. But in this case the currencies of the countries with strong balances of payments will appreciate in terms of the currencies of the countries with weak balances of payments. These alterations in exchange rates will look after the balance-of-payments problem by a double mechanism.

(1) The appreciation of the strong currency and the depreciation of the weak currency will make the products of the former country relatively more expensive and the products of the latter country relatively cheaper to all purchasers. The products of the former will tend to give way to the products of the latter in all consuming markets, that is to say, in the domestic markets of the two countries concerned and also in the markets of the other countries to which these two countries are exporting. In the end the consequential expansion of the exports of the country with the balance-of-payments deficit relatively to the exports of the country with the balance-of-payments surplus correct the disequilibrium in international payments.

(2) But this adjustment will not, of course, be immediate. It will take time for the exports of the country whose exchange rate has depreciated to expand at the expense of the products of the country whose currency has appreciated. Meanwhile the excess demand for the currency of the surplus country and the excess supply of the currency of the deficit country will cause the former currency to appreciate very markedly and the latter currency to depreciate very markedly in the foreign exchange markets. But this will induce the private speculator to move funds from the former into the latter currency. The excessive appreciation of the former currency in terms of the latter will be known to be only temporary; for, as soon as it begins to have its basic effect in stimulating the exports of the deficit country relatively to the exports of the surplus country, the change in the exchange rates will be in large measure reversed. The speculator, so the argument runs, in search of private profit will thus move funds out of the surplus (and excessively appreciated) currency into the deficit (and excessively depreciated) currency. This movement of private funds will serve to finance the temporary deficit on the balance of payments of the deficit country until the exchange rate variations have had time to carry out their basic role of adjusting the underlying elements in the balance of payments.

In fact any effective mechanism for adjustment of the balance of payments must perform a double function. The first function, which we may call the function of liquidity, is to provide a temporary support for the currencies of the deficit countries to meet short-run fluctuations in balances of payments or to finance temporarily a more fundamental disequilibrium in balances of payments, while a more permanent adjustment is being carried out. Freely fluctuating exchange rates provide such liquidity through the mechanism of private speculation, as funds are moved out of currencies which have appreciated unduly as the result of the immediate impact of a change and into currencies which for similar reasons have depreciated unduly. The second function, which we may call that of adjustment, is to bring about long-run basic changes in imports, exports, and other items in balances of international payments; and this is done by the effect upon imports and exports of permanent moderate alterations in rates of exchange.

Are there any snags in this argument? The weaknesses of the system can be examined under four heads.

(1) The system will work only if the products of the countries concerned are competitive with each other. An appreciation of the German mark will reduce the surplus on the German balance of payments only if the resulting higher price of German products relative to British, American, French, and other products causes purchasers to buy considerably less German products and considerably more of the products of other countries. If this were not so, the change might do more harm than good; the higher prices of German products might cause the Germans to earn more, not less, foreign exchange for their exports; and if the Germans did not increase their imports of foreign products very appreciably, the result might be an increase rather than a decrease in the surplus on the German balance of payments. But the main industrialized countries of the West are in fact rather highly competitive in their manufactured exports; and if time is given for the adjustments to be made by the producers, traders, and consumers concerned in all the countries of the world, there is, I think, little doubt that exchange rate variations could cope with the long-run problem of adjustment between the Western countries. This would be even more certain if, as I have suggested, there were also freer trade between these countries and if the foreign aid which they gave were in an untied form. For both these reforms would make it easier for buyers of the products of these countries to shift their purchases from the more expensive to the cheaper suppliers; and this is what is needed in order to make a system of variable exchange rates work effectively.

(2) An essential part of the mechanism is the movement of short-term speculative funds from a currency which has temporarily appreciated excessively into a currency which has temporarily depreciated excessively. Such speculation would, of course, turn out to be profitable to the speculator. But whether or not it actually occurs will depend upon the speculators having a good understanding of what is going to happen, that is to say, upon their being able to decide when a currency is "temporarily excessively" appreciated or depreciated and when it is not. In the absence of such well-informed speculation the system might be very unstable. Consider the following example. Suppose that there is a deficit on the U.S. balance of payments; the dollar depreciates; since it takes time for dollar exports to drive sterling and mark exports out of world markets, the dollar depreciates at first excessively; this gives an enormous price advantage to dollar products; producers, traders, and consumers after a time-lag shift their demands very substantially away from sterling and mark products on to dollar products; this shift is so great as not merely to remove the deficit on the U.S. balance of payments but to cause a surplus; the dollar now appreciates excessively; this causes sterling and mark products to have an enormous price advantage over dollar products; after a time, therefore, there is a swing back in the opposite direction. The system might proceed by a series of ever-increasing excessive swings now in one direction and now in the other. The trouble could, of course, be prevented if there were a sufficient volume of well-informed speculative funds, which would mitigate the excessive swings in the exchange rates which lie at the root of the trouble.

(3) The position might, however, be even worse if speculators not merely refrained from operating at the right time in the right direction, but actually operated in the wrong direction. Suppose once more that there is a deficit on the U.S. balance of payments and that

the dollar depreciates in consequence. If speculators judge that simply because it has already depreciated a lot, it is likely to depreciate still further, they may themselves sell dollars and buy other currencies long after the dollar has depreciated sufficiently to put the U.S. balance of payments into equilibrium in the long run. They may, if they operate on a sufficiently great scale, make the position even more unstable than it would have been in the absence of all speculation. If speculators act in this way, they are liable in the end to make very considerable financial losses, because they will be left in the end in the position of holding no dollars but only marks and pounds when at last the excessive depreciation of the dollar comes to an end so that it regains value in terms of other currencies. But not all speculators will necessarily lose—only those who are in the end left carrying the baby. Some persons may speculate against the dollar when they know it is already depreciated below its true long-term value, simply because they think that others are going to continue to speculate against the dollar and that they themselves will be able to get out of dollars before the downward movement comes to an end.

(4) But there is one further danger which may intensify the instability of uncontrolled fluctuating exchange rates. Suppose that the United Kingdom has a deficit on its balance of payments, so that sterling depreciates in terms of other currencies. Suppose that the depreciation is at first rather excessive. The depreciation of the pound will cause the price of imports to go up in terms of pounds; this will cause the cost of living to go up; and this may in turn cause the money wage rate to go up. If all this happens sufficiently quickly and on a sufficiently large scale, the result may be to cause a rise in money costs of production in the United Kingdom which largely or wholly offsets the competitive advantage gained by the depreciation of the pound itself. In this case the strain on the United Kingdom balance of payments would cause a further round of currency depreciation, followed by a further round of internal cost inflation, and so on. And in this case the speculators who speculated against the pound, while they would intensify the trouble, would not lose money, because their own speculation would help to cause the internal cost inflation and thus to justify the speculation itself. This danger can, I believe, very easily be exaggerated; for even in the United Kingdom the price of imports accounts for only a small part of the cost of living, and the effects of the rise in the price of imports upon the cost of living and of the cost of living upon the wage rate are both likely to be delayed.

However great or small these dangers may in fact be, they are real possibilities. For this reason the authorities of the Western countries are extremely unlikely to adopt an uncontrolled system of freely fluctuating exchange rates. It may be, as I personally greatly hope, that exchange-rate variations will be used more readily and frequently than in the past as a means of maintaining equilibrium in balances of payments; but if so, these variations will certainly be controlled to a greater or lesser degree by the authorities. The normal instrument for such control is the national exchange equalization account; the national monetary authority holds a fund made up partly of its own national currency and partly of a reserve of gold and of other foreign currencies; if it wishes to prevent an appreciation in the value

of its own currency it buys gold or foreign currencies in order to sell its own currency, and vice versa.

In the bad old days of mass unemployment in the 1930's, before the governments of the Western countries had learned by financial policies to maintain their internal domestic demands at adequate levels, this system led to complaints of competitive exchange depreciation. The authorities in one country would purchase gold and foreign currencies with their national currencies simply in order to make their national currencies depreciate (even though there was no deficit on their balance of payments), in order to cheapen their exports in foreign markets, in order to undercut the products of their competitors, in order to give employment to their own workers at the expense of foreign workers.

This danger is now little more than a bogey. National governments now know how to control total demand and there are so many useful things that each can do with unemployed resources that they are exceedingly unlikely to try to depreciate their currencies competitively against each other simply to find employment for their workers in export markets. But it was largely to fight against this danger that the rules of the International Monetary Fund were devised, whereby national governments undertook to peg their currencies in terms of gold and only to alter the peg from time to time in order to remove a fundamental disequilibrium in their balance of payments. This system is, in my opinion, a bad one. It means that if, for example, a deficit appears on the United Kingdom's balance of payments, the British authorities are under an obligation to maintain the value of the pound (by selling gold and dollars and buying pounds in the exchange equalization account) until some once-for-all cataclysmic depreciation of the pound by 20, 30, or 40 percent takes place to remove a fundamental disequilibrium. This provides a golden opportunity for useless anti-social speculation. During this period of support of the pound all speculators can see that the pound will certainly not be appreciated and may be very substantially depreciated. They sell pounds and buy dollars, knowing that at the worst they will not lose and at the best may make a quick profit of 20, 30, or 40 percent. And such speculation serves no useful purpose; on the contrary, it merely piles an extra unnecessary strain on the pound.

This sort of danger is particularly great in the case of currencies like sterling and dollars which are held as international reserve currencies by other countries. The amount of sterling balances held as liquid reserves by foreigners is, as is well known, greatly in excess of the total gold and dollar reserves held by the United Kingdom authorities. If oversea holders of sterling lose confidence in the pound and try to move their funds out of sterling into gold and dollars, this can put a quite intolerable strain on sterling. The dollar is more and more reaching a similar position. In recent years international liquidity has been increased largely by other countries holding more and more of their reserves not in gold, but in dollars. The consequence is that against the gold reserves of the United States there is now a large liquid debt of dollar balances held by other countries. Lack of confidence in the dollar which caused these foreign holders to shift from dollars into gold or sterling can now put a very great strain on the U.S. gold reserves.

In my opinion, then, the Western countries need a reformed system for international payments in which (1) much greater use is made of variations in exchange rates than has been the case in recent years, (2) exchange rate variations are, however, subject to some public control to avoid the dangers of misguided speculation, and (3) the special problem of potential instability of the great international currencies like the pound and the dollar are met. I will close this article by making some proposals which would meet these points. I shall put my proposals forward in the form of a precise "ideal" scheme in order to be able to explain the principles briefly and clearly. In the real world it would, of course, be capable of many modifications.

I suggest, then, the following scheme:

(1) All the national monetary authorities of the Western countries would agree to pay all their monetary reserves (gold, dollars, sterling, etc.) into a reformed International Monetary Fund. They would receive in exchange gold certificates at the current gold value of their reserves which they had paid into the IMF. They would agree in the future to hold only gold certificates as their reserves, and all newly mined gold which was not taken up by the private market (for industrial purposes or for private hoarding) would be paid into the IMF.

(2) The national monetary authorities would then let the value of their national currencies fluctuate in value in terms of gold certificates according to changes in supply and demand in the foreign exchange markets. Each national monetary authority would now possess a national exchange equalization account made up partly by holding of its own currency and partly by a holding of the gold certificates which it had acquired from the IMF in exchange for its foreign exchange reserves. It could, therefore, if it so decided, moderate the fluctuations in the value of its national currency in terms of gold certificates by buying or selling its own currency for gold certificates in its exchange equalization account. But it would no longer be in a position to shift its foreign exchange reserves from one form of foreign exchange to another (e.g., to sell pounds in order to buy dollars or to reduce its dollar balances in order to hold gold).

(3) The IMF would now hold an enormous additional fund of gold and national currencies (in particular pounds and dollars) which were paid into it from the reserves of the national monetary authorities. These would be an addition to its present holding of the gold and national currencies which were paid into it on its inception. It could now act as a most important supranational exchange equalization account. If in its opinion, for example, the pound was temporarily unduly depreciated in terms of dollars, the IMF could sell dollars and purchase pounds out of its holdings of these currencies.

(4) Moreover, the IMF could now purchase (or sell) national currencies such as pounds, dollars, marks, francs, etc.) for gold certificates. Gold certificates would be held by the national monetary authorities as their sole form of monetary reserve and private operators might also hold gold certificates as a convenient form of reserve of external currency. The IMF by issuing new gold certificates to purchase national currencies (or by buying up existing gold certificates with some of the national currencies which it held) could thus control the total issue of gold certificates. By doing so it could

ensure that the total amount of international liquid reserves was kept in line with the needs of international trade and payments.

How might such a system work in practice? Let me give a short account of how I personally would hope that it might be made to work. The national governments of the Western countries would concentrate on national policies for the maintenance of full employment, price stability, and economic growth and on reaching international arrangements for agreed reductions in their trade barriers and for agreed programs of untied aid to the underdeveloped countries. They would not concern themselves too much with the consequences upon their balances of international payments, but would rely upon variations in the rates of exchange between their national currencies (under the control and guidance of a reformed International Monetary Fund) to bring about the necessary adjustments.

The reformed IMF would in this case become a real supranational exchange equalization fund. It could use its large fund of various national currencies to give temporary support to one currency in terms of another if such temporary support was desirable. It would itself have to judge, no doubt in close consultation with the national monetary authorities, whether private speculation should be supplemented or offset in order to prevent an excessive temporary depreciation or appreciation of particular currencies.

These operations of the reformed IMF could always be supplemented by the operations of the national exchange equalization accounts which could buy (or sell) gold certificates with their own national currencies in their own national exchange equalization accounts, if they wished to prevent an excessive temporary appreciation (or depreciation) of their national currency. But it would be greatly to be hoped that national exchange equalization accounts would be used less and less frequently. In modern conditions it would be a most appropriate division of functions between national governments and a supranational monetary authority, if the former concentrated on policies for economic expansion, foreign aid and the removal of trade barriers while the latter concerned itself with the control of foreign exchange rates. Such a system could be made to work efficiently and would remove any possibility that the national governments might use their national exchange equalization accounts for purposes of competitive exchange depreciation in order to obtain national advantages for their trade.

In addition to its functions of offsetting temporary excessive fluctuations in exchange rates by buying one national currency and selling another, the reformed IMF would also be able by buying (or selling) national currencies for gold certificates to increase (or to decrease) the total amount of liquid international funds available in the form of gold certificates. The IMF could buy and sell national currencies for gold certificates with the aim of keeping the value of gold certificates constant, not in terms of any single national currency (for the national currencies would be varying in terms of each other), but in terms of national currencies in general. Such stability of the value of gold certificates in terms of a composite index of national currencies would make it an admirable form of international liquid asset. Insofar as national monetary authorities operated their national exchange equalization accounts gold certificates, having a more or less

constant value in terms of national currencies in general, would be an admirable form for holding their reserves of foreign exchange.

Even if, as is to be hoped, the operations of the national exchange equalization accounts withered away as the system developed, the controlled provision by the IMF of international liquid reserves in the form of gold certificates would still remain of major importance. For gold certificates could be held by commercial banks and by other private institutions and individuals who, because their business involved them in international transactions, needed to hold their own reserves of foreign exchange.³ Indeed, there would be no reason why those who wished to do so should not express their business contracts in terms, not of any single national currency, but of gold certificates. In particular, this possibility might greatly ease the flow of international loan capital in a regime of fluctuating rates of exchange between national currencies.

There is nothing absurd in modern conditions in having an international currency of this kind, controlled by a truly supranational authority, and at the same time having a number of national currencies whose values may fluctuate in terms of each other and in terms of the international currency. As long as we entrust to the national governments the main functions of public finance and of policies concerned with the maintenance of full employment, the control of inflation, and the stimulation of economic growth, we cannot preserve *both* a liberal cooperative system of international trade and of foreign aid *and also* fixed exchange rates between national currencies. But this does not mean that there is no proper function for a really powerful supranational monetary authority. Those who, like myself, wish to move in the direction of effective world government will welcome this fact. All Federal or confederal arrangements rest upon a sensible division of functions between the "central" and the "local" governments, suitable to the practical problems of the real situation, I suggest that for the Western countries the division of functions in monetary matters should be of the kind which I have outlined in this article.

Such proposals raise, of course, the most far-reaching questions of the proper nature for the management and governing body of an IMF that was transformed into so powerful a supranational instrument. It would be inevitable that it should be operated, in its day-to-day decisions about the purchase and sale of national currencies, by a small body of expert international servants, recruited no doubt largely from the treasuries and central banks of the constituent countries; but at the same time the principles of its operations should be supervised by a governing body of ministers or high officials from the governments of the member countries. But these matters cannot be discussed in this article.

³ National monetary authorities would have undertaken to hold only gold certificates and no gold, but private individuals and institutions would be free to demand from the IMF the redemption of gold certificates with actual gold. But against this liability the IMF would now hold the whole of the present gold reserves of the monetary authorities of the Western countries. In the unlikely event that such reserves proved insufficient for this purpose the IMF would have to restrict the supply of gold certificates and to allow the price of gold certificates and of gold to rise in terms of national currencies in general. But this is a very remote possibility. One of the advantages of the scheme which I propose is that it would provide adequate liquidity without a rise in the price of gold in terms of national currencies in general.

87th Congress }
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BALANCE OF PAYMENTS**

MATERIALS PREPARED FOR THE
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OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

Part 4
**THE EXCHANGE RATE:
THE CASE FOR CHANGE**



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LETTERS OF TRANSMITTAL

NOVEMBER 22, 1962.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress are four in a series of papers prepared by outside consultants for the consideration of our Subcommittee on International Exchange and Payments in connection with its study of "Factors Affecting the United States Balance of Payments."

●
WRIGHT PATMAN,
Chairman, Joint Economic Committee.

NOVEMBER 21, 1962.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith are four in a series of study papers assembled by the Subcommittee on International Exchange and Payments on the general subject of "Factors Affecting the United States Balance of Payments."

The papers in the series, prepared by experts from Government, the universities, and research organizations, are a part of the subcommittee's broadly based study of the need and means for reducing the deficit in the U.S. balance of payments, as well as appraising the opportunities for international trade and payments cooperation and the usefulness of a policy of relatively high domestic interest rates in stemming the recent dollar outflow.

The materials are presented in advance of the subcommittee's hearings in accordance with the Joint Economic Committee practice of providing members of the committee and the participating panelists an opportunity to examine thoroughly the analyses in preparation for discussions at public hearings.

Prof. Don Humphrey of the Fletcher School of Law and Diplomacy, Tufts University, has been acting as a consultant to the subcommittee and has had major staff responsibility in arranging for these expert study papers and in planning the subcommittee's study.

Sincerely,

HENRY S. REUSS,
Chairman, Subcommittee on International Exchange and Payments.

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FIXED OR FLEXIBLE EXCHANGE RATES?

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FIXED OR FLEXIBLE EXCHANGE RATES?

The rate of exchange enjoys a unique position in the market economy as the only price which is more or less permanently fixed with the unanimous approval of private business and government. Other prices too, are subject to controls by private and government agencies. But these cases of price setting are considered controversial exceptions to the rule that market prices ought to be permitted to adjust when conditions change in a competitive economy.

How can we explain the generally held view that foreign exchange rates ought to be fixed when the logic of the market economy seems to demand changing prices? Fixed exchange rates are so much taken for granted that this violation of the basic principle of the market economy is hardly ever discussed, and that the relatively small group of economists who believe in flexible exchange rates¹ is pushed into a defensive position when it would seem that the burden of proof should rest on those who argue for fixed rates.

Foreign exchange rates are the prices we pay for foreign currencies. They serve as links between national price systems, tell us what a unit of our money will buy in foreign countries, and serve as supplementary units of account in international transactions.

Foreign currencies and their prices, the rates of exchange, play the same role in international transactions as domestic money plays at home. They are used as means of payment and as units of account (or at least as links between the two domestic units which enter any international transaction). Our attitude toward the foreign exchange rates, therefore, follows our attitude toward domestic money. Domestic money is generally accepted because it enjoys unquestionable *price* stability. Economic calculations are carried out on the seemingly firm basis of the monetary unit. The tautology that "a dollar is a dollar" creates the illusion that the price stability of money vouchsafes stability of the purchasing power or *value* of money. As a rule, this illusion is strong enough to maintain, even in times of creeping inflation, the use of money as unit of account, means of payment, and reserve of highest liquidity.

International transactions involve at least two national monetary units whose purchasing powers do not always change in the same degree or even in the same direction. A rate of exchange as a link be-

¹ See, e.g., Milton Friedman, "The Case for Flexible Exchange Rates," in *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953), pp. 157-203; Frank D. Graham, "The Cause and Cure of 'Dollar Shortage,'" *Essays in International Finance*, No. 10 (Princeton: Princeton University, 1949); Gottfried Haberler, "Currency Convertibility" (Washington: American Enterprise Association, 1954); L. Albert Hahn, "Monetäre Integration—Illusion oder Realität?" in *Internationale Währungs- und Finanzpolitik* (Berlin: Duncker & Humblot, 1961), pp. 99-123; James E. Meade, "The Future of International Trade and Payments," *The Three Banks Review*, No. 50, June 1961; W. M. Scammell, "International Monetary Policy" (London: Macmillan & Co., Ltd., 1961); Egon Sohmen, "Flexible Exchange Rates, Theory and Controversy" (Chicago: University of Chicago Press, 1961); Charles R. Whittlesey, "International Monetary Issues" (New York: McGraw-Hill Book Co., 1937). For a more complete listing see Fritz Machlup, "Plans for Reform of the International Monetary System," *Special Papers in International Economics* No. 3 (Princeton University, 1962), pp. 57-58.

tween two price systems, therefore, should be expected to vary together with the so-called purchasing-power parity, i.e., with the ratio of change of the respective domestic purchasing powers of the two national currencies. Nevertheless, we meet with the almost unanimous desire to make the foreign exchange rate resemble the domestic currency unit by imparting to it absolute price stability in terms of *both* currencies by *fixing* the rate of exchange, e.g., by tying both currency units firmly to gold. Furthermore, the general domestic acceptability of money is broadened into free convertibility of one currency into the other at the fixed rate. International transactions can then be calculated and executed on the same firm basis as domestic business.

We see that the predilection for fixed exchange rates rests on the wish to create an international unit of account and a means of payment closely matching the qualities of domestic money.

But the following facts are ignored :

The *price* of the domestic monetary unit is stable by definition and, though the *value* of the unit depends on the long-run effects of domestic monetary policy, this policy is the same for all participants in domestic transactions. The foreign exchange rate, on the other hand, should be expected to be a real market price, determined by demand and supply in the foreign exchange market. Demand and supply, in turn, depend on fluctuations in international trade of commodities, services, and securities. Dominant among the factors which cause these fluctuations is the lack of integration of national economic policies. Where two or more nations are involved, a uniform monetary policy becomes mere fiction. Assuming free convertibility at fixed rates of exchange, national monetary authorities must stand ready to equalize disparities in demand and supply in the foreign exchange markets by buying or selling foreign exchange or gold as the occasion demands. But only a surplus position can be maintained indefinitely through the creation of domestic money. *Foreign* money cannot be created *domestically* and cannot be sold indefinitely.

An international payments system with fixed exchange rates must be a compromise composed of the following three elements :

(1) The economic policies of the trading countries must reach a reasonable degree of coordination.

(2) Foreign exchange or gold reserves must be at the disposal of the trading nations, the amounts of these international reserves depending to a large extent on the degree of coordination of national economic policies.

(3) A nation may decide to maintain fixed exchange rates even if it has to give up the *full* convertibility of its currency. The introduction of exchange controls, however, is alien to the basic principles of the market economy. Only relatively mild forms of exchange control can be considered in a compromise which tries to maintain convertibility.

Acceptance of *flexible* rather than *fixed* rates of exchange would be more consistent with the principles of a market economy. If, therefore, inadequate coordination of national economic policies does not permit convertibility at unalterably fixed exchange rates owing to insufficiency of internationally liquid reserves, the presumption is that market economies should give up fixed rates rather than convertibility. The less likely it is that fixed rates of exchange can be supported by

well integrated domestic policies and large international reserves, the stronger is the case for flexible exchange rates.

Coordination of national economic policies must be a joint effort. An individual country can only participate in it, but not achieve it alone. A given country may perform perfectly in maintaining a satisfactory employment level and rate of growth at stable prices, yet its balance-of-payments position may still be disturbed from the outside. Other countries may follow more inflationary or deflationary policies, or their economies may suffer from recessions and cause balance-of-payments difficulties for the first country.

We must keep in mind, furthermore, that even the most perfect coordination of national policies would not necessarily establish fixed rates of exchange as equilibrium rates, owing to such influences as changing technologies or crop failures which are independent of monetary and fiscal policies.²

As the price systems of modern market economies become more rigid and since greater emphasis is being placed on full employment and economic growth rather than on balance of payments equilibrium, the coordination of national economic policies is not as close as it used to be in the days when it was the predominant aim of central banks to defend their gold and foreign exchange reserves in an attempt to maintain free convertibility at unalterably fixed gold parities. Balance of international payments was then achieved through the use of gold reserves, through short-term capital movements, and through adjustments in national price levels. The coordination of national price systems was achieved through appropriate domestic monetary policies whose main instrument was the rate of discount. Changes in short-term rates of interest in consequence of balance of payments disequilibria were conscious alterations, superimposed on variations of interest rates owing to domestic demand and supply changes in the money markets.

We note that, under the so-called gold mechanism, market economies paid for their *fixed* exchange rates by being forced into *changing* another price of strategic importance, the short-term rate of interest, more than domestic market conditions would have warranted. Through changes in the discount rate the market economies tried to induce just enough equilibrating capital flow and to produce just enough price inflation or deflation to balance international payments in order to maintain both fixed rates of exchange and free convertibility.

In simulating the price stability of the national monetary units in the form of fixed exchange rates, the monetary authorities were forced to change the price of money in the more meaningful sense of the cost of borrowing of money. In fact, the gold mechanism violated the "neutrality" of money by exposing the market economy to changes in interest rates which would not have been necessary in a system of flexible exchange rates. Exchange rate fluctuations would have been the automatic and instant results of changing international economic relations. Fixed rates of exchange, on the other hand, forced the market economies to transfer the adjustment function from exchange-rate to interest-rate fluctuations, that is, from where fluctuations would have been natural to where they had to be induced artificially.

² These are the same influences which make it impossible to calculate equilibrium rates of exchange on the basis of purchasing power parities.

Flexible exchange rates would have affected only international transactions, while changes in interest rates had to affect the economy in its entirety. Furthermore, while the flexible exchange rate would itself have been the equilibrating device, the discount rate affected international commodity movements only indirectly and belatedly through its pressure on domestic prices and costs.

Before World War I the maintenance of fixed gold parities was not felt to be an unwelcome fetter upon domestic economic policy. Employment policies were hardly known, and nobody talked about economic growth. Central bank policy was to be guided by the simple rule that sufficient gold reserves had to be maintained. Domestically, the supply of money was supposed to follow the needs of trade through the discounting and rediscounting of prime commercial paper. One did not see that the so-called "legitimate" demand for credit was itself a function of the rate of interest. Had the central banks been forced to consciously set a rate of interest, the fiction of an automatic monetary policy could not have been maintained and the hollowness of the commercial-loan theory of credit would have become evident. However, since the central banks had the duty to defend their gold reserves through changes in discount rates, the monetary authorities were furnished with a convenient device for the determination of interest rates—without having to follow a conscious domestic monetary policy. Had somebody proposed flexible rates of exchange on the grounds that domestic monetary policy should be "neutral" or at least free from outside interference, he would have put the central bankers of the period into the embarrassing position of having to find a substitute for the simple criterion of central bank policy which was the result of the maintenance of fixed rates of exchange. We see that fixed rates of exchange were not sought for their own sake alone. They were the kingpin of a system which, while eliminating a conscious national monetary policy, succeeded quite well in coordinating currency circulations internationally.³

The combined effects of increasing price rigidities in modern market economies and of growing concern with employment and growth have put an end to automatic monetary policies but, inconsistently, not to the desire to maintain currency convertibility at fixed exchange rates.

Considerable deviations of national economic policies can be combined with fixed exchange rates and convertibility only when substantial reserves of gold and foreign currencies are at the disposal of national monetary authorities. As cause of a shortage of international reserves absence of coordination of national policies is more important than the mere expansion of international trade.⁴

³ Typical for the desire to have an automatic system is the remark of Governor Strong which J. M. Keynes quotes in "A Treatise on Money" (New York; Harcourt, Brace & Co., 1930), vol. II, p. 305: "Until we get back to the automatic flow of gold which affects bank reserves and brings into play the automatic reactions from loss of reserves, I do not believe we are going to have all the satisfaction from the Federal Reserve System that we will have after that time comes * * * I have great confidence that when the time comes to conduct these things as they were in former years, a lot of the need for the type of management which has to be applied in the present situation will be eliminated. It will be more automatic. We won't have to depend so much on judgment, and we can rely more upon the play of natural forces and their reaction on prices * * *"

⁴ Typical of statements overemphasizing the expansion of trade as a cause of insufficient world liquidity is Robert Triffin, "Gold and the Dollar Crisis" (New Haven: Yale University Press, 1960), pt. I, ch. 3.

Assuming insufficient coordination of national economic policies and a shortage of international reserves, we are forced to abandon fixed rates of exchange in favor of a more flexible system.

Greater flexibility can be achieved by introducing one or the other of the following systems:

(1) The exchange rates are at all times fixed in terms of gold but they are not unalterably fixed. When they diverge too far from the equilibrium rates, that is, in case of "fundamental disequilibrium," the rates can be adjusted but the new rates again are fixed rates. This is the so-called adjustable-peg system which is used by the members of the IMF.

(2) The exchange rates are permitted to fluctuate, but the central bank or a stabilization fund ("equalization account") is willing to intervene with sales or purchases to keep these fluctuations "orderly." Disequilibrating short-term changes are to be ironed out, and long-term structural adjustments are to be permitted. This is the system of flexible or floating exchange rates.

(3) Finally, in the system of *freely* fluctuating exchange rates, the Government abstains completely from interfering in the foreign exchange market.

A number of recent writers argue that the IMF's adjustable peg system has worked "in an unsatisfactory and, in fact, unstabilizing fashion."⁵ These writers believe that the IMF has lost the discipline and integration which unalterable gold parities brought forth, without gaining the flexible connection of national price structures which is the advantage of exchange rates which are permitted to adjust to alterations in the international payments situation. By permitting a relaxation in the effect to coordinate national economic policies through the abolition of unalterably fixed gold parities, fixed rates are likely to become wrong rates. To maintain convertibility at wrong rates, foreign exchange and gold reserves will move from deficit to surplus countries, thus advertising the deviation of the pegged rate from the equilibrium rate and suggesting the coming of the day when the peg will be changed. This situation constitutes an invitation to sell potentially depreciating currencies and thereby to force an adjustment of the exchange rate.

The adjustable-peg system, by delaying price variations in the foreign exchange market, exposes the economies to sudden shock which continuous, gradual modifications could have avoided.⁶

In a system of freely fluctuating exchange rates the monetary authorities would remain completely inactive in the foreign exchange

⁵ Gottfried Haberler, "Currency Convertibility" (Washington, D.C.: American Enterprise Association, 1954), p. 24.

⁶ Changes of the peg are known as *revaluations*. The rate or gold parity is changed from one fixed position to another which is supposed to be nearer the equilibrium position. Revaluations are acts of monetary authorities and not the automatic result of market forces. When market forces are permitted to exert their influence in the foreign exchange market we describe the resulting price changes as *depreciation* and *appreciation*. Here we deal with frequent but gradual changes and not with the rare and abrupt changes implied in the concept of revaluation. For the case of revaluations or peg adjustments the English language does not offer a pair of terms corresponding to depreciation and appreciation. We can speak of devaluation but do not have an opposite term for revaluation in an upward direction. To avoid the unwieldy expression "revaluation upward" authors are generally tempted to substitute the term "appreciation," a habit which can lead to errors because the substituted term has, strictly speaking, a different meaning. The so-called German and Dutch appreciations of 1961, e.g., were not appreciations but revaluations upward. The peg was altered, but the German and Dutch currencies had not been permitted to appreciate gradually through the forces of demand and supply. To avoid both error and clumsiness we could use the term "upvaluation" (*sit venia verbo*) as the opposite of devaluation.

market and indifferent to changes in the foreign value of their respective currency units. As a rule, however, monetary authorities will attempt to influence the exchange rates by ironing out "disorderly" or "disruptive" shortrun fluctuations through countervailing sales and purchases in the foreign exchange market. Exchange rates are neither fixed nor are they permitted to fluctuate freely. The system is one of flexible or floating rates. The expression "to float" implies that an object is freed from attachment and moves gently on the surface of a liquid. It is descriptive of exchange rates whose movements are orderly and equilibrating.

In the system of flexible or floating exchange rates, the rates adjust as market prices should. They bring about those corrections which, in the adjustable peg system, are often unduly delayed and, therefore, the more disturbing. Where disequilibria are permitted to persist and to grow, the resulting changes must eventually be more drastic. A system which delays necessary price changes violates the logic of the market economy; a system of flexible exchange rates conforms to its essence.

Other things remaining equal, the introduction of flexible exchange rates would greatly reduce the need for international reserves because price changes would maintain equality between supply and demand. But it would be an exaggeration to say that flexible exchange rates "automatically offset the impact of disparate national economic policies upon international prices and costs" and that they do not interfere with "each country's freedom to pursue whatever internal monetary and credit policies it chooses."⁷ We shall see that a system of flexible exchange rates, like any other system which seeks to maintain convertibility, will work only under the assumption that the member countries manage a sufficient integration of their respective domestic economic policies.

The greatest potential weakness of a system of flexible exchange rates is the danger that it could be misinterpreted as an invitation to the national economic authorities to disregard the foreign payments implications of their domestic actions. This attitude might be disastrous. Flexible exchange rates can add invaluable elasticity to the international payments system, but they do not automatically coordinate diverging national economic policies or offset their effects. Price mechanisms are delicate adjustment processes which must not be overtaxed. Insufficient coordination of national economic policies could lead to disequilibrating transactions in the foreign exchange markets in anticipation of further one-sided developments. These transactions would rapidly exhaust available reserves of foreign exchange or gold. Convertibility would have to be discontinued and the flexible rates would change into rigidly fixed rates maintained by quantitative restrictions.

But if the monetary and fiscal authorities are determined to maintain convertibility and are aware of the dangers of disequilibrating capital movements, they will consider the price behavior on the foreign exchange market as a sensitive index of their balance-of-payments situation. They will not want to advertise a precarious position

⁷ Triffin, *op. cit.*, p. 82. These statements are not an expression of Triffin's opinion, but rather a statement of what he believes the opinions of the proponents of fluctuating exchange rates to be. Having exaggerated their views, he can the more easily criticize them.

through a rapidly falling foreign value of their currency units. We have no reason to believe that changing exchange values should be less effective as warning signals than falling reserves (gold outflow) under a system of pegged exchange rates.

Assuming that we succeed in eliminating the danger of disequilibrating capital movements, a system of flexible exchange rates will help balance international payments without undue limitations of domestic economic policies.

Let us take the case of a country, A, which deviates from the average behavior of the rest of the members of the payments system in a conservative direction, and assume that this country has reached high levels of employment and a satisfactory rate of growth at stable prices or at prices which are less inflated than those of the other countries.⁸ Country A, at fixed rates of exchange, will export more than it imports. Furthermore, since the country's rates of interest are relatively high, owing to its comparatively conservative monetary policy, foreign capital will tend to flow in. This flow of capital into A will increase an already existing balance-of-payments disequilibrium, increase the liquidity of the country's banking system, and stimulate an inflationary trend which was already induced by the export surplus. If country A is determined to defend its relatively more conservative monetary policy against this inflationary trend, it may try to raise interest rates, with the result that the international payments disequilibrium grows.

The inflationary dangers for country A become even more obvious if A tries to avoid both its export surplus and the unwelcome capital import by lowering its rates of interest. This policy runs counter to A's assumed conservative monetary policy and shows that, at fixed exchange rates, the country cannot escape the transmission effects of the other countries' less conservative expansionist policies. Country A either joins the other countries in price inflation, or it pays the price of accumulating an unwelcome and embarrassing excess of international reserves. With a limited total of international reserves, country A's trade partners may eventually be forced into what the IMF agreement called "measures destructive of national or international prosperity," such as domestic deflation, competitive exchange depreciation, or exchange control.⁹

Of course, country A could argue that the other countries should follow her example and use more conservative policies. However, whether right or wrong, it has no jurisdiction over the other countries' internal policies. If the lack of coordination continues, the system of fixed exchange rates must eventually break down.

Had country A used a system of flexible exchange rates, it could have avoided the indicated dilemma for its domestic economic policies, maintained international payments equilibrium, and avoided embarrassing other countries. Its interest rates could have been determined according to domestic policy considerations, the reserves of its commercial banks would have remained unaffected by the constant need for countervailing purchases of foreign exchange by central bank or stabilization fund, exports and imports would have tended to equilibrium owing to the depreciation of foreign currencies in terms

⁸ Recent experiences show that this assumption can be quite realistic.

⁹ Art. I(v).

of its own currency unit, interest rate differentials would have been compensated by exchange rate fluctuations to avoid disequilibrating capital movements and, in short, continuous adjustments would have prevented the disequilibrating effects of fixed exchange rates that became wrong rates.

Before the adjustment of its undervalued fixed rate, country *A* is in virtually the same position as a country which practices competitive exchange depreciation. We must stress this point because the system of flexible exchange rates is often criticized on the ground that it will inevitably deteriorate into competitive exchange depreciation.

Actually, competitive exchange depreciation is often the aftermath of delayed adjustments of the peg because then the temptation will be great to fix the new price of foreign currencies above the equilibrium price: competitive devaluation of the home currency is intended to *reverse* the unfavorable balance-of-payments situation which resulted from overvaluation. Because the peg is to be adjusted only rarely, the danger exists that a member, asking the IMF for permission to devalue, will want to do rather too much than too little. Devaluations which are repeated too often are damaging to the credit of the country concerned and likely to lead to destabilizing speculation.

If we permit the exchange rates to fluctuate, the danger exists that national monetary authorities will maintain an undervalued rate by the simple device of purchasing foreign exchange. Since the domestic currency can be created, this policy can be prolonged indefinitely. A system of flexible exchange rates, therefore, needs the control of an international agency like the IMF which can see to it that the members maintain near-equilibrium rates. But the possibility of competitive exchange depreciation does not impair the case for flexible exchange rates, because all other systems are similarly exposed to violations. This is even true, as we have seen, for fixed exchange rates.

The main argument against flexible exchange rates is that they create additional risks which tend to discourage international trade. However, risks are unavoidable in any market economy. While it is true that, to function well, a market economy needs to be consciously managed, we must beware of those policies which try to create protection against risk through interference with the pricing process. Policies like the freezing of security prices and interest rates, monopolistic price fixing, escalator clauses in wage contracts or peril points are all tending in the wrong direction because they work against rather than through the market.

The fixing of exchange rates is compatible with the working principles of a market economy only when it rests on a perfect integration of the economic policies of the trading countries. Where this integration is less than perfect, the fixed rates very soon become wrong rates. International transactions calculated and carried through on this wrong basis will not be in the best interest of all the members of the market economy, though they may, like most cases of price fixing, temporarily favor a few.

That fluctuations of exchange rates affect the economy on a broad front—affecting simultaneously all actual and potential import and export commodities—is perfectly true, but only strengthens the argu-

ment for continuous and gentle, rather than intermittent and drastic, changes. We must remember that the main monetary and fiscal instruments which would have to be used to maintain fixed rates influence the economy on an even broader front, including areas which are in no way directly connected with international trade.

In defending foreign exchange reserves at overvalued parities, the monetary authorities must change interest rates and cause shifts of domestic factors of production which are more disturbing than adjustments of exchange rates would have been. These latter adjustments would have been consistent; attempts to defend fixed rates under conditions of diverging national policies would be inconsistent in a market economy.

If exchange fluctuations become so big and erratic that they disturb the domestic economy, the causes of these fluctuations must be found in economic cataclysms or in such complete lack of integration of national economic policies that no international payments system could promise convertibility.

A system of flexible exchange rates is no panacea. As a matter of fact, it should be envisaged as a system in which every effort is made to keep the exchange rates as stable as possible. The argument that fluctuating exchange rates permit us to disregard the international payment implications of national economic policies should be firmly rejected.

It is rather generally believed that exchange rate fluctuations would lead to capital flight movements or would, at least, seriously impede international lending and investment.

Capital flight movements would ensue when a country's economic policies are expected to be consistently more inflationary than those of the rest of the world. Capital flight constitutes an additional demand for foreign exchange, raises the price of foreign currencies and thus justifies itself in the process. These inflationary effects on the foreign exchange market could even precede similar developments on the domestic commodity markets.¹⁰

It would be absurd to blame the system of flexible exchange rates for the fact that it could not handle a situation which no international payments system could handle under conditions of convertibility. We should assume, therefore, that the members of a system of flexible exchange rates will want to promote a reasonable degree of stability. If it is not certain that a given domestic price trend will continue, a country's currency cannot depreciate very far below its purchasing power parity and speculators would have to watch out lest they lose by having bought foreign currencies at too high a price. In case of fluctuating exchange rates the risk involved rises with rising (or falling) prices while in the case of fixed exchange rates speculation is practically without risk.¹¹ Suppose that the speculator counts on a devaluation; i.e., a downward adjustment of the peg. If the devalua-

¹⁰ Once exchange depreciation *anticipates* domestic price inflation, it looks as if depreciation had *caused* inflation. This was the contention of the so-called balance-of-payments theory, which explained the hyperinflation in Germany in the early 1920's through increased import prices leading to wage increases, a greater demand for currency and, eventually, increased monetary circulation.

¹¹ See L. Albert Hahn, "Monetäre Integration—Illusion oder Realität," in *Internationale Währungs- und Finanzpolitik* (Berlin: Duncker & Humblot, 1961, p. 119; F. A. Lutz, "International Payments and Monetary Policy in the World Today", Wicksell Lectures 1961 (Stockholm: Almqvist & Wiksell, 1961), p. 23.

tion comes, he has profited; if it does not come, he has lost but a small margin. Only under *fixed* exchange rates which have clearly become *wrong* rates will a situation arise in which speculators are unanimous and speculation becomes destabilizing even under otherwise reasonably normal economic conditions. In the case of flexible exchange rates there cannot be such unanimity, and capital flight would not normally constitute a danger.

Indeed, it can be argued that speculation will support balance of payments equilibrium in a system of fluctuating exchange rates. Since it will take some time until exports and imports react upon changes of exchange rates, these changes will have to be stronger initially than in the long run. The very expectation of the milder longrun price effect will make speculators move funds from strong into weak currencies, thus supplying foreign exchange for the interval before the effects of trade adjustments make themselves felt.¹²

If a stabilization fund manages to iron out "disorderly" movements, the case for fluctuating exchange rates becomes even stronger. Private speculators must then always reckon with the possibility that the great resources of the fund may be used against them.

As far as long-term international capital movements are concerned, it is rather generally assumed that they would be seriously impeded if exchange rates were permitted to fluctuate. A creditor would not want to lend to, or invest in, a country with depreciating currency, and a borrowing country would find it hard to meet its obligations if the loan were expressed in units of a creditor's currency which is appreciating.

But these arguments apply to *devaluation* quite as much as to *depreciation*. "Unless exchange rates are to be held stable in perpetuity (as under a gold standard) the effect of uncertainty as to future rates of exchange on long-term lending will exist equally whether rates vary from day-to-day or are adjusted at long intervals to meet changing conditions."¹³ Since unalterably fixed rates are no longer considered practical, we shall have to accept whatever reduction of international lending this may imply, but a shift from the present adjustable peg system to the system of fluctuating rates will have no additional negative effects on long-term capital movements.

Fortunately, the whole argument concerning the curtailment of international investment through uncertainty as to future exchange rates is overstated. Again we must ask, first of all, why investors in a market economy should be protected against exchange risks which, after all, may also work in their favor. That they should be protected against such risks is similar to the argument that the investor should be protected against changing security prices—an argument which destroyed monetary policy after the war in the United States by forcing the Federal Reserve to create money whenever security prices needed support.

Suppose we try to maintain fixed exchange rates in a debtor country whose currency would otherwise depreciate under a system of flexible rates. Maintenance of fixed exchange rates would mean increasing interest rates and falling security prices. The creditor country, on

¹² See James E. Meade, "The Future of International Trade and Payments," *The Three Banks Review*, June 1961, No. 50.

¹³ W. M. Scammell, *International Monetary Policy* (London: Macmillan & Co., Ltd., 1961), p. 96.

the other hand, would have to lower its interest rates. In this case debtors and creditors would enjoy the advantages of fixed exchange rates but would have to accept domestic price developments which are unfavorable since deflation is contrary to the interest of the debtor and inflation is contrary to the interest of the creditor. We see again that in a market economy we cannot simply ignore a price change. If we prevent it, we merely transfer its effect.

As long as the debt is expressed in the creditor currency, a depreciation of this currency does not directly harm the international investor more than the domestic investor. A depreciation of the debtor currency raises the burden for the debtor, who now has to earn more in terms of his own currency to make his contractual payments in the creditor's currency. But the debtor country pays its debts through exports of goods whose prices are determined in foreign markets, so that its foreign exchange earnings, too, are increased.

It would be wrong to blame currency depreciation for a deterioration of the terms of trade with the implication that under fixed rates this "extra burden" could have been avoided. The necessary adjustments under fixed rates and convertibility could produce a heavier burden than mere depreciation when domestic price rigidities produce unemployment rather than increased competitiveness.

We can now summarize the case for flexible exchange rates.

A system of flexible exchange rates is the only really consistent international payments system among modern market economies. The rates of exchange should be permitted to fluctuate as real market prices. Artificial price fixing will mean only that other even more strategic prices, i.e. the rates of interest, will have to be changed in response to balance-of-payments disequilibriums, however inconvenient these alterations may be from the standpoint of domestic economic policy.

Changes in interest rates are supposed to alter both the level and the structure of domestic prices. These price adjustments meet with substantial resistance in modern economies. Downward adjustments encounter price inflexibilities and produce unemployment rather than expanding exports. Upward adjustments may be frustrated by the inability or unwillingness of a surplus country to expand its monetary circulation.

Assuming that national economic policies diverge and that price inflexibilities preclude speedy domestic price adjustments, a system with unalterably fixed rates becomes practically impossible. The Bretton Woods Agreement acknowledged this fact. But it substituted an adjustable-peg system which lacked the stringent integration features of the gold standard without offering sufficient flexibility. Alterations of exchange rates in this system are rare and take place only when a "fundamental disequilibrium" can be proven to exist. Disequilibrating capital movements will hasten the decision to change the rate of exchange and the impact of this change on the domestic economies will be considerable because these economies have been guided by an unrealistic rate of exchange and also by interest rates which were chosen to deal with the problem of international reserves.

A system of flexible (but not freely fluctuating) exchange rates would be more suitable under existing conditions. It would keep the exchange rate continuously near the equilibrium level, would shoulder

a substantial part of the adjustment burden, would make it unnecessary to manipulate interest rates predominantly on the basis of balance of payments considerations, would permit to insulate the domestic economy against unwelcome effects of economic policies in other countries, and would greatly reduce the need for reserves of international liquidity.

It would be wrong, however, to claim for a system of fluctuating exchange rates that it frees the members of the system from any consideration of the balance-of-payments impact of their national policies.

OVERVALUATION OF THE DOLLAR: CAUSES, EFFECTS,
AND REMEDIES

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OVERVALUATION OF THE DOLLAR: CAUSES, EFFECTS, AND REMEDIES

I. PREAMBLE

1. STATEMENT OF PURPOSE

The first purpose of this paper is to show that the U.S. dollar is fundamentally overvalued. Next, the causes of this condition will be analyzed, and its effects on U.S. and foreign economies will be considered. Finally, we will outline some conceivable remedies and argue that one is to be preferred.

2. ANALYTICAL METHOD

Although various points of the following analysis call for both economic and political judgment, the present writer feels neither fully qualified nor called upon to make the latter. Rather, it is his task to present a strictly economic analysis of the causal relationships involved.

II. DIAGNOSIS

1. DEFINITION

Before we can argue that the U.S. dollar is overvalued, we have to state what actually is meant by "overvaluation." The concept is by no means an unambiguous one. At least two interpretations can be conceived of. The simpler and more commonsense view is to observe the balance of payments, autonomous or "basic", over a number of years covering both periods of prosperity and depression. If over the entire period we find that there was a significant outflow of gold and dollars, we can conclude that the currency of the country in question is overvalued. In other words, it would take a lower price of dollars in terms of foreign currency to equilibrate the foreign trade accounts, the overall economic conditions remaining unchanged. This is the definition currently adopted or implied by most discussions of our balance-of-payments position.

A second (and in my view more significant) definition of overvaluation is obtained by asking, What would be the state of the balance of payments if the economy were continuously operating at (reasonably) full employment? Indeed, even in the years 1958 through 1960 when we experienced substantial deficits in our balance of payments, it would have been possible to design monetary and fiscal policies to keep the foreign trade accounts in balance; however, this could have been done only with, say, 12 percent unemployment and a considerably lower GNP than actually was realized in these years.

A rate of exchange balancing the foreign accounts with a 12 percent unemployment rate would not be considered normal or desirable, al-

though on the first definition there would be no signs of overvaluation.

Consequently, it is necessary to consider whether the currency is overvalued or not, keeping in mind the level of employment that on the average (over the cycle) is deemed desirable. Thus, even if there had been no deficit in 1961, and consequently no overvaluation by the first definition, by the second definition, with an average unemployment of 6 to 7 percent over that year, the currency still would be considered overvalued by those who regard the prevailing unemployment rates of 6 to 7 percent as undesirable. If employment had been 3 to 4 percentage points higher, because of higher demand for foreign materials and final products, the balance of payments would still have been in a substantial deficit and hence the currency not at a normal parity.

2. SYMPTOMS OF THE OVERVALUATION OF THE DOLLAR

So many analyses of our foreign trade and balance of payments have been presented in recent years that only a brief restatement of facts is needed. From the beginning of the 1950's through 1957 we experienced, on the average, minor deficits in our balance of payments that were fully financed by a dollar transfer to foreign countries; in most cases other countries were content rather than disturbed by such flows, since their stock of convertible currency was gradually increased. In the 3 years following 1957 the average deficit of the balance of payments rose to about \$3.5 billion annually, and was not reduced satisfactorily in 1961 even though the U.S. economy was in a rather depressed state in that year. A substantial portion of the deficits had to be financed through transfers of gold.

In the same period, following 1957, the average rate of unemployment in the United States has risen markedly compared to the earlier 1950's. Prices, especially export prices, have got markedly out of line in the past 4 years when compared with prices in other industrialized countries. The rate of growth of our economy—to the extent that it can be ascertained over so brief a period—has declined. The surplus countries, on the other hand, representing most of the industrial world outside the United States, have experienced unprecedented prosperity, not unrelated to the relative undervaluation of their currencies.

3. IDENTIFICATION OF THE U.S. OVERVALUATION

In the terminology usually employed in respect to domestic conditions of inflation, it is possible to distinguish between a cost-price-push overvaluation of the currency and a demand-pull overvaluation. In the first situation the economy experiencing a balance-of-payments deficit is likely not to operate at full employment, effective demand for domestic produce being deficient owing among other things to the balance-of-payments deficits. In the second case, a balance-of-payments difficulty arises with full employment, primarily owing to the pressure of domestic demand on national resources, bidding away supplies that otherwise could be exported, and raising demand for imports as well.

The U.S. situation is typical of the cost-price-push alternative. Indeed, without any strain on resources (observe that throughout the latter period under discussion our employment and capacity utilization were both unsatisfactory), our prices got out of line and, as a result, the balance of payments turned against us.

The distinction just made is very important, and its implications will be discussed in greater detail below. (See sec. II 5.) For the present it may be noted that in the case of a cost-price-push overvaluation, national employment and growth are likely to suffer considerably from the very effects of overvaluation. This phenomenon and its importance have been largely overlooked in most analyses of the balance-of-payments situation.

4. THE PRESENT AND PROBABLE FUTURE FACTORS OF OVERVALUATION

There is no single cause of our balance-of-payments difficulties and of the overvaluation of our currency. Although it will not be possible to discuss all the factors in any great detail here,¹ the principal arguments may be summarized:

We have already referred to the spread between U.S. and foreign prices that occurred in the last 4 years. This is only a result of underlying forces that now have to be identified. Studying the price and productivity trends in the leading industrialized countries, we find a marked negative correlation between the rate of growth of productivity and the rate of price increases. Prices of both export and domestic goods rose in the United States, where growth of productivity is low; on the other hand, in the countries with high productivity increases, prices remained stable or even declined compared to 1953, in the 4 years under investigation. The likely explanation is that with a certain degree of imperfection in both the labor and product markets, it is easier to satisfy union demands for increased money wages while maintaining reasonable profits in countries where the annual increments of productivity are substantial. Indeed, if productivity grows, say, at 7 percent, laborers can be fully contented with an equivalent wage increase; on the other hand, with 2 or 3 percent rise in productivity, strong unions in this country may well overshoot the mark of reasonable wage demands consistent with the growth of productivity, and thereby induce an "autonomous" inflationary pressure.

The factor just pointed out is likely to be a powerful one because, on the whole, the surplus countries were operating closer to full employment. *Prima facie*, it would have been expected that the stronger inflationary pressures would be encountered in those countries whose productive resources were under the heavier strain.

It cannot be expected that the pressure stemming from different rates of productivity growth will disappear in the near future. Indeed, as long as this country maintains its considerable *absolute* productivity advantage vis-a-vis the rest of the world, productivity in other countries is likely to grow faster than in the United States. This is owing to the technological imitation that is always open to the rest of the world.

But technological progress, the adoption of new techniques and of new products in countries outside of the United States also appear to have another longrun effect on our balance of payments. At the end of World War II, this country was just about the only one capable of producing a large variety of complex industrial products. Fifteen

¹ See my essay, "Longrun Factors in the United States Payments Disequilibrium," in Seymour E. Harris, editor, "The Dollar in Crisis" (New York, Harcourt Brace & World, 1961).

years later, in the period we are examining, a number of Western industrialized countries became very efficient producers of most of these manufactures, capable not only to satisfy their domestic demands, but also to compete with American producers in third markets.

Further, it can be argued that the technical perfection and quality improvement in manufacturing outside the United States, and the often excellent taste of foreign goods, are likely to shift our domestic demand in favor of such products, thereby further worsening our balance-of-payments position. A case in point here is that of foreign small cars and foreign high luxury cars. It is true that the growth of this market in this country was largely checked by the competition of domestic motor companies; but the general tendency toward foreign quality products is to remain with us in some degree, especially when and if our economy moves permanently to higher levels of operation.

Finally, two important factors, both deriving from commercial policy, ought to be examined. The first, already with us today, is the European Common Market. With fairly inflexible and autonomous domestic prices in the United States, there is no doubt that the Common Market arrangement presently affects both our balance of payments and domestic employment, and will do so even more in the future. The protective impact of discrimination by the EEC on our balance of payments, according to a rough calculation of the present author, could be somewhere near \$1 billion annually; the effect on our domestic production will be a good deal larger, once the Common Market's internal tariff is fully eliminated.

The second factor is the present administration's trade-expansion program. While from the point of view of efficiency of resource allocation this is a desirable policy, provided that substantial concessions are obtained from our trading partners, the effect on our balance of payments is by no means certain. It all depends on the specific forms the program takes. With approximately equal concessions on both sides, provided that our domestic output is stimulated through the policy, as is expected, the balance of payments may even deteriorate to some minor degree.

5. THE EFFECTS OF U.S. OVERVALUATION ON DOMESTIC AND FOREIGN ECONOMIC CONDITIONS

We referred to the importance of the effect of overvaluation on our domestic income, and hence on employment and profits in section II 3. We now summarize this issue from a rigorous study of the problem.²

Let us use, as a point of departure, the increase of about 10 percent in U.S. domestic and export prices between 1953 and the 4 deficit years following 1957, and consider what would have been the effect of unchanged rather than higher prices in the latter period. First of all, our balance of payments would have remained in much better condition with perhaps very little overvaluation. Second—and this is the point we want to stress here—our national income and product would have been a good deal higher. A good portion of the gap in our GNP,

² Jaroslav Vanek, "The Balance of Payments, Level of Economic Activity and the Value of Currency: Theory and Some Recent Experiences." Three lectures presented at the Graduate Institute of International Studies in Geneva (Geneva, Librairie E. Droz, 1962).

which was estimated by the President at near \$30 billion (in his message to the Congress, February 1961) would have been avoided. A sober estimate of the loss of output imputable to the price increase is \$15 billion, and a possible one is \$20 billion, in each of the past 4 years.³ In other words, if our prices had not gotten out of line by about 10 percent, our domestic unemployment rate could have been about half of that actually realized, and profits would have been correspondingly higher. Also, our rate of capital formation and technological advance would very likely have been greater.

The reasoning underlying this conclusion is as follows: with lower domestic and export prices in the United States, a larger volume of goods and services would have been exported from the United States and more domestic supplies would have been purchased by domestic buyers. This would have raised domestic production and incomes; in turn, such higher incomes would have yielded further increased expenditure on domestic products. This again would increase incomes and expenditures, and so on, until natural economic forces would have brought this cumulative process to an end, or until full employment and full capacity would have been reached. Thus, even though the initial (first round) effect of a greater price competitiveness would have been only a fraction of \$15 or \$20 billion, the cumulative process of expansion would have added this amount to our national income.

This is only one side of the picture, although admittedly the one closer to our hearts. If relative overvaluation generates deficiency of effective demand for domestic output in the country whose currency is relatively overvalued, the same phenomenon viewed from the other side generates an excess of effective demand in the countries whose currencies are relatively undervalued. And this is precisely what we have been witnessing in recent years on the part of most industrialized countries outside of the United States; only rarely, if at all, was the connection between our own relative stagnation and high unemployment, and the booming conditions abroad realized.

A peculiarity of the situation just described is that while income and employment have no arbitrary limitations in their decline in the United States, increasing demand in countries with undervalued currencies soon must bring those countries to the full-employment, full-capacity barrier. Once such a barrier is reached, the authorities of the surplus countries either can free their prices, and accept that the U.S. rate of inflation be imposed on them, or through stringent monetary policy can check on inflation. It is the latter alternative that most of the other industrial countries have adopted, at the cost of tight money and high rates of interest.

The net effect of U.S. overvaluation then is a total decline in income and output of the free world, because the income of the United States is free to decline, while that of the surplus countries is constrained by the full capacity operation of these countries. Moreover, the combating of excess demand in the surplus countries is likely to result in unnaturally high interest rates, and these, with correspondingly low rates in the United States, cannot but generate disturbing short-term capital movements that we have frequently witnessed at various occasions in the past 4 years. Such short-term capital out-

³ For supporting analysis, see my Geneva study already cited.

flow from the United States then can only reinforce the speculative movements of short-term capital resulting from overvaluation of the dollar.

6. EVALUATION OF THE DEGREE OF OVERVALUATION

Related to the question whether a currency is overvalued is the question of how much is it overvalued. Before estimating the degree of overvaluation, it can be indicated why the difference between the actual rate of the dollar with respect to gold and other currencies and the rate that would equilibrate our foreign trade accounts is quite large.

The reasons for such a hypothesis are in a sense the inverse of the argument presented in the preceding section (II.5), and can briefly be stated as follows: Suppose that the value of the dollar is lowered. The immediate effect of such a decline will be beneficial to the balance of payments. Lower prices of American products and services in terms of foreign currencies will definitely tend to increase the dollar value of exports, while the dollar value of imports will be likely to decline, domestic buyers finding it less expensive to procure their purchases domestically. In the second round, however, the increased domestic output, stimulated both by rising exports and shifting from imports to domestic produce, will raise incomes and employment at home; and this in turn will tend to produce a higher demand for imports, and possibly even higher domestic prices that would counteract the beneficial primary (price) effect on the value of exports.

The two effects, the first operating through prices, the other through incomes, will tend to offset each other. Short of full employment, there is only a presumption, rather than a certainty, that the balance of payments effectively would improve as a result of devaluation. Under the conditions existing in the United States, it can be expected that the balance of payment will improve, although not as much as if the price effects only were operative.

Since the net effect of an altered exchange rate is less than the price effect, it can be expected that the value of the dollar would bring our balance of payments into equilibrium is rather lower than it may appear. Using results of a more detailed study of this particular problem⁴ as well as a personal evaluation, the present writer believes that the equilibrium value of the dollar is somewhere near 15 percent below the actual value. The important fact to be kept in mind, however, is that the social benefit to the United States attached to such an equilibrium value is not only an equilibrated balance-of-payments account, but also, and perhaps more important, an annual level of gross national product around \$20 billion above what it would be otherwise.

7. OVERVALUATION AND U.S. ECONOMIC POLICY

In section II.5 we have pointed out one important effect of overvaluation on U.S. income and employment. We may refer to this as the economic effect. But it is not the only consideration. Overvaluation and an unsatisfactory state of the balance of payments

⁴"The Balance of Payments, Level of Economic Activity and the Value of Currency" (op. cit.).

influence domestic economic conditions unfavorably also, through what we may term the "policy effect"; some economists would even argue that this policy effect is of greater importance than the economic effect.

Indeed, the state of our currency and of the balance of payments forces our policymakers into a straitjacket. Easy-money policies that would be warranted to promote higher levels of domestic activity have to be forgone, (1) because low short-term interest rates would induce outflow of short-term funds, and (2) because a higher level of economic activity would generate higher demand for imports and inflationary pressures which could further restrict our exports. Reasons similar to those under (2) may influence us to forego expansionary fiscal policies although economic conditions are unsatisfactory.

Finally, but not least important, overvaluation renders all of our industries less competitive in foreign and domestic markets. The weakest among these industries then—not without justification—demand protection of one kind or another. But such a protection is neither economically efficient, nor can it improve our relations and understanding with our trading partners.

III. REMEDIES

1. CONCEIVABLE REMEDIES

There is a large number of courses of action open to the U.S. Government to cope with the present balance-of-payments situation. Although some appear quite undesirable, we ought to start our discussion by listing at least the principal ones.

A. *International credit expansion.*—Although this remedy, strictly speaking, is not one to cope with a fundamental balance-of-payments maladjustment, we are listing it in the first place, as in recent years action has been discussed, and actually taken, along these lines. Because major maladjustments in world payments must increase demand for monetary and short-term credit financing of the deficits, the argument is advanced by many that the stock of international liquidity is insufficient. Thence the plans proposed by Professor Triffin (actually a modification of the Keynes plan), by Dr. Bernstein and others, and action to increase the stock of international reserves via the International Monetary Fund, or via official international short-term credit arrangements.

B. *Deflation of incomes and prices.*—Alternatively, the U.S. authorities could bring the balance of payments into a permanent state of equilibrium, and consequently eliminate the state of overvaluation on our first definition (see sec. 2.1), through domestic fiscal and monetary policies reducing income and possibly prices. Indeed with lower domestic income and prices, less could be imported and more exported, and the entire balance of payments could be brought into equilibrium.

C. *Commercial and exchange policy.*—The U.S. Government also could use such exchange controls, tariff and quantitative restrictions, or export subsidies as would equilibrate our external accounts.

D. *Reduction of official and private transfers.*—Through direct action the U.S. Government can reduce its economic and military aid to the rest of the world. Moreover, through appropriate fiscal and

monetary measures outflow of long- and short-term private funds can be checked.

E. *Coordination of monetary policies in leading world countries.*—At different occasions in recent years it has been argued that synchronization and coordination of monetary policies would alleviate the pressure exercised on the U.S. balance of payments. The argument usually advanced is that with only minor or no differences in short-term interest rates among Western countries, the impetus for short-term interest arbitrage, and hence for destabilizing short-term capital movements, would be eliminated. While the argument is correct, it may be pointed out that the proposed coordination implies also other side-effects that would further tend to improve the balance of payments through action on current—rather than capital—account. Indeed if countries with naturally high short-term rates were to lower these rates in order to match that of the United States, the credit expansion in these countries that such a reduction would involve necessarily would be inflationary. Such an *induced* inflation in countries outside of the United States would then tend to offset the overvaluation of the dollar and restore, or better approximate equilibrium in international accounts.

F. *Dollar devaluation.*—While the five preceding remedies assume a fixed dollar-gold parity, we are here concerned with correcting the balance-of-payments maladjustment by adjusting the rate of exchange to its equilibrium level. Economic forces analyzed in the preceding sections would through a reduction in the value of the dollar, in terms of gold and in terms of foreign currencies, tend to increase the value of our exports and reduce that of our imports on current account.

G. *Floating, or freely fluctuating, exchange rate of the U.S. dollar.*—Our foreign accounts can be brought into equilibrium through free competition in the foreign exchange market, where naturally and automatically the rate of exchange settles at a level bringing to equality the supply and demand for foreign exchange. In practice, this policy corresponds to a discontinuation by the U.S. Treasury of obligatory dealings in gold at a fixed price with foreign monetary authorities.⁵

H. *Appreciation of all or some other currencies.*—This remedy is largely comparable in its economic effects to dollar devaluation, except that here the gold-dollar parity remains unchanged while gold price in terms of other currencies is reduced. Strictly speaking, it is not a policy open to our authorities. Rather, it would have to be solicited from our trading partners.

2. FIRST SCREENING OF THE CONCEIVABLE REMEDIES

Before turning to a thorough discussion of F, G, and H, it will be argued in this section that remedies A through E are to be rejected from the outset. In the following section then we will bring out the major advantages of the remaining three courses of action.

As for remedy A, it has already been pointed out that it really is not a tool for coping with a long-run balance-of-payments maladjust-

⁵ Of course, in case we would want to guarantee part or all of present dollar holdings by foreign countries, corresponding redemption of past short-term indebtedness in terms of gold at present parity could be envisaged.

ment. Indeed, greater liquidity through international credit expansion can only aggravate the situation when more fundamental correctives are put to work. Moreover, and what is more important, while greater liquidity may create temporary monetary stability in the international markets, it does not prevent the losses in domestic incomes, employment, and profits owing to overvaluation; these latter were pointed out and explained in part II of this paper.

In the financial context, within which this policy is usually presented, it needs to be stressed that there is no basic scarcity of international liquidity in the world. On the contrary, were it not for the fundamental disequilibria in world payments, there would be an abundance, or even an excess, of such liquidity, given its existing stock (i.e., gold, and international dollar and sterling short-term liabilities).

As we have attempted to show in part II, course of action B might call for such monetary and fiscal policies as would deflate domestic income to a very low level. It can be argued that such deflation—perhaps involving 12 percent unemployment—would not only be unacceptable to most Americans, but it would also be contrary to the stated aims of U.S. policy in many fields, including the Employment Act of 1946.

Direct commercial and exchange controls C are to be rejected on both grounds of economic inefficiency and on political grounds. While the latter considerations are of less concern in this report, it will be recalled that tariffs, subsidies, quantitative restrictions, and exchange controls lead to an inefficient use of resources and output allocation throughout the world. Especially if such actions were followed by foreign retaliation, as was the case in the 1930's, the degree of such an inefficiency could be enormous; moreover, our balance-of-payments situation might not improve at all. In addition, such restrictive policies may be incompatible with existing international agreements.

It has also been argued on many occasions that official grants and loans for economic and military assistance D could be reduced and thereby the balance-of-payments situation improved. To the extent that such grants and loans do not generate purchases of U.S. material and hence U.S. exports, such a policy is desirable from the point of view of our balance of payments. However, it seems that a major portion of such grants and loans is tied contractually to purchases in the United States; consequently the balance-of-payments effect may not be very large. Moreover, withdrawal of tied loans and grants is likely to depress output and employment in domestic industries supplying the beneficiary countries.

Private long-term investment, direct or other, can also put additional strain on our balance of payments insofar as such investment—similarly to official grants and loans—is not matched by exports of capital and other goods. While direct investment, especially in underdeveloped countries, will call for U.S. equipment, this may not be so with investment projects in advanced, especially European countries. Here related goods and service procurements often take place locally, or purchases are made outside of the United States. In such situations, and also when investment—at least temporarily—assumes a purely financial form without generating demand for American

products, the U.S. balance of payments necessarily must suffer. Nevertheless, it must be observed that reduction of such capital flows could not solve the entire balance-of-payments problem, nor would it be easily accepted by our business community.

One additional observation here: to the extent that the transfer of capital funds is not matched by corresponding exports that keep the balance of payments in equilibrium, this primarily is owing to the overvaluation of the dollar, which makes the investors procure their investment goods as well as services in more advantageous foreign markets.

We now come in our survey to policy E, that is, coordination of monetary policies. Technically, if used in appropriate doses, it would be sufficient to wipe out any overvaluation of our currency, bringing price levels in different countries to the required levels. However, given the present state of national economic sovereignties and autonomies, it would hardly be acceptable to foreign countries. Indeed, if foreign monetary policies were entirely shaped by the requirements of our external balance, these policies, traditionally designed to cope with problems of internal income and monetary stability, would be entirely paralyzed. Moreover, foreign governments would have to accept passively rates of inflation as high as, or higher than those in the United States. The infeasibility of such an alternative today is obvious.

None of the remaining three policies—a floating exchange rate, dollar devaluation, or appreciation of other currencies—can be rejected outright. Also the comparative merits of the three require an analysis of greater detail and subtlety. This analysis follows in the next two sections of this report.

3. GENERAL ATTRIBUTES OF AN ADJUSTMENT IN THE VALUE OF THE U.S. DOLLAR ⁶

The three possible remedies that remain to be discussed, that is, floating rates, dollar devaluation, or appreciation of other currencies, have a good deal in common. While the first of the three produces equilibrium at all times in the foreign exchange market, and consequently in the balance of payments, the other two tend to restore the value of the dollar closer to equilibrium, if not exactly at it, for a sufficiently long period.

As all three policies tend to correct the state of overvaluation of the U.S. dollar, all three also are liable to produce the other beneficial effects—besides the equilibration of our foreign accounts—that were discussed in part II. We may only restate them briefly here.

First of all, free or administered devaluation of the dollar to a level near its equilibrium value, roughly estimated at 15 percent, would give an enormous stimulus to our domestic income, employment, and profits. Our average annual national income over future years could increase by \$20 to \$30 billion, and employment by around 3 percent of total labor force. (Note that the \$15 to \$20 billion mentioned in section II.5 was based on an estimated overvaluation of 10 percent.)

This overall improvement in business conditions would clearly affect

⁶ The propositions presented in this section are based on a rigorous analysis in "The Balance of Payments, Level of Economic Activity and the Value of Currency," op. cit.

our long-run growth. Higher profits, higher incomes, and an increased productivity of capital, owing to operation closer to full capacity, would all tend to produce a higher rate of capital accumulation and technical innovation, and hence a higher rate of growth.

There is one unsatisfactory effect of this all-around improvement in our economic conditions: given our present institutional framework and our present market structures (in both labor and product markets) we would have to expect stronger inflationary pressures with higher levels of employment and fuller utilization of plant and equipment.

Recalling that a dollar devaluation of one form or another is also an appreciation of other currencies with respect to the dollar, the policy here discussed would also have its effects on the rest of the world; these are also mostly beneficial to other countries. In the period of the past 3 or 4 years, with overvaluation of the dollar, we have witnessed a marked deficiency in our incomes and employment, while other industrial countries experienced extreme pressure on their resources, accompanied by high rates of interest, incapacity to fill all orders, etc. Under such conditions adjustment in the exchange rates to a more natural level is likely to reduce strain on resources, reduce interest rates, and diminish inflationary pressures in the countries that presently have a surplus balance of payments, without affecting seriously—if at all—the level of their incomes and employment. On the contrary, with lower interest rates, the excess of exports over imports that formerly generated a balance-of-payments surplus could be diverted to domestic investment and hence to the stimulation of economic growth.

But there is another beneficial impact of the exchange rate adjustment of a rather financial nature that ought not to be overlooked. With improved conditions in the United States and reduced pressure of demand in the rest of the industrialized countries, interest rates are to be expected to rise naturally in this country, and decline abroad. And this precisely would reduce the impetus for international (short-term) interest arbitrage that has so often in recent years caused difficulties in our foreign accounts. Such a reduction of destabilizing short-term capital movements could only add to the beneficial impact of reduced speculation in foreign exchanges.

Finally, at least mention ought to be made of the fact that with a satisfactory balance of our external accounts, an important impediment to our foreign economic and military assistance would be removed.

4. FLOATING RATE COMPARED TO AN ADMINISTERED CHANGE OF DOLLAR PARITIES ⁷

Having pointed out in broad lines the advantages of an exchange-rate adjustment, the task remains to compare and appraise the alternative ways whereby such an adjustment can be performed. Indeed, it is on such consideration—and on political considerations—that the choice between the three alternatives should be based.

⁷ Throughout this section we are drawing on a more extensive and rigorous analysis presented in the present author's "International Trade: Theory and Economic Policy" (Homewood, Ill., Irwin, 1962), chs. 8, 10, and 17.

There are a large number of different criteria or points of view to consider. In the rest of this section we will consider the principal criteria starting with those which favor a floating rate, and then those which support either the case for a controlled exchange-rate adjustment, or do not point clearly in one way or another.

A. *Criteria favoring a floating-rate arrangement.*—1. Owing to the fact that in a free competitive market the price will at all times find its correct equilibrium level, it can be expected that the floating-rate arrangement will generally come closer to its natural equilibrium value than an administered devaluation. Indeed, our means of predicting the true equilibrium rate are quite imperfect, and consequently the likelihood that a devaluation would exactly yield the desired equilibrium result is very small.

2. A corollary of the above proposition is what we may term the "ethics of devaluation." No one can object to a country's wanting to have the value of its currently naturally in equilibrium through operation of a free exchange market. However, it can be argued by some—rightly or wrongly—that a currency is devalued to an improper value, in pursuit of beggar-my-neighbor policies or for other reasons. In the past such arguments were employed only too often.

3. It is often suggested that if the U.S. dollar were devalued (with respect to gold), most or all other countries would follow suit, raising the price of gold in terms of their own currencies in proportion, and consequently no actual readjustment of international currency parities would take place; only the price of gold would be raised. In such a situation, of course, none of the desirable balance of payments and income adjustments would materialize. On the other hand, if the dollar rate is freed, the present parities among the dollar and other world currencies can be preserved, by action of foreign authorities, only if the latter engage in supporting indefinitely the dollar at its present rate. But this, in all likelihood, would necessitate indefinite accumulation of dollar balances by foreign authorities. Thus it can be concluded that while controlled dollar devaluation can—and may even be likely to—lead to retaliatory devaluations of other currencies, floating rates would perform the desired adjustment.

4. The permanence of the floating-rate solution is another of its advantages that ought not to be overlooked. If the economic conditions in the United States and abroad that have produced the present state of overvaluation are lasting ones, it can be expected that in the future every so often further adjustments of the rate would be called for, if the devaluation alternative is chosen. This then can lead to destabilizing speculation in foreign exchanges and interest arbitrage of the type we have been witnessing in recent years. A floating rate, on the other hand, would—or at least could with rational domestic monetary policies—perform the adjustment of parities smoothly without major disturbances.

5. A still further important advantage of a floating rate lies in the fact that such a policy disposes entirely of the so-called international liquidity problem. Indeed, demand for international liquidity is not so much a function of the volume of international transactions—as contended by so many—but rather a function of potential deficits in the balance of payments. But if the possibility of such deficits is

entirely eliminated, then the necessity of holding precautionary reserves of gold and foreign exchange also disappears. In practice, retention of some international currency reserves under floating rates could be envisaged by national or international stabilization funds designed to cope with emergency situations. However, the volume of reserves serving such a purpose would be incomparably smaller than the reserves presently in existence.

6. Monetary policies designed to cope with situations of depression or recession are necessarily more effective under floating rates than under fixed rates. In other words, credit expansion generating monetary expansion within the United States of, say, \$1 billion, will provide a greater stimulus to the economy with flexible rates than it would with a fixed dollar parity.

Observe that in the first situation initial expansion of income coming from an easier money policy would tend to increase demand for imports, and this, in turn, make the dollar price of other currencies increase. But such a change in the dollar rate would make exports from this country more desirable for foreign buyers, so that more would be exported, and thus domestic income further expanded. Moreover, foreign products would then become more expensive in the United States, less would be imported, and in all probability more would be spent on domestic products; in this way domestic output also would be stimulated. It is clear that none of these secondary effects can be hoped for with a rate that is administratively held at a given level. Also, it will be observed that forces similar to those just outlined strengthen the impact of tight-money policies in producing the desired effect.

7. A given expansion of money supply in the United States will not only generate a greater improvement in domestic income under flexible rates, provided that income is depressed, but it will also keep the interest rate at a higher level than it would have been with a fixed value of the dollar. This in turn will produce a lesser impetus for international interest arbitrage with flexible rates than there would be with a fixed rate.

8. Following very much the same lines of reasoning as in (6) above, it can be concluded that a given fiscal policy will also have a stronger effect on the economy with flexible rates than with a fixed rate of exchange. For example, a budgetary surplus of \$1 billion will check an overexpansion of the economy with greater vigor, if the rate of exchange is permitted to fluctuate freely.

9. While the arguments presented under 6 through 8 above derive from the strict mechanics of economic interdependence, there is another advantage to flexible rates of rather psychological nature with respect to economic policy. Indeed, the authorities will be at greater ease to pursue full-employment policies within the country, realizing that such policies cannot bring about maladjustments in the balance of payments, the latter being automatically equilibrated through a floating rate.

10. But it is not only economic policies that make income and employment change. The primary causes of business fluctuations generally are autonomous, stemming from the operation of the economic system itself. And with respect to such fluctuations, and especially with respect to their spreading over national borders, the floating rate

also has an important role to play. The general proposition is that a floating rate—as compared to a fixed rate—will tend to protect an economy from foreign cyclical disturbances. Using a comparison, if we visualize spreading of business cycles across national borders (under fixed rates) as waves spreading from a stormy region to other parts of the sea, then a flexible rate serves as a breakwater in such a sea. To consider just one such concrete situation, suppose that a strong business recession occurs abroad. Under fixed exchange rates, our exports also will decline a good deal, and the deficiency of demand for our exports will generate unemployment and overall depressed conditions in this country also. Now if the same happened with a flexible dollar rate, the foreign decline in business activity and in demand for American exports would tend to appreciate the foreign currencies vis-a-vis the dollar, and hence American exports would appear less expensive to foreign buyers, who, even with lower incomes, would now buy more of our products than if the international price relationships remained unchanged.

It will be apparent that the argument just presented is as valid for the protection of this country as it is for protection of our trading partners against depressions that might arise in our economy.

11. The very fact that the floating rate keeps the foreign exchange market in equilibrium cannot but add to economic efficiency of resource and product allocation throughout the world. A fixed rate, if it not exactly at the level that would be attained through a flexible rate, actually acts as a global subsidy to exports and a global tariff on imports, or vice versa. Thus certain products can be exported (imported) that would otherwise be cheaper to produce abroad (at home).

12. Usually—and most often for good reasons—speculation in foreign exchanges is offered as an argument against a floating exchange rate. (We will turn to such arguments below.) However, there is one point with regard to speculation that favors the floating-rate arrangement. The fact that under floating rates, changes in the rate can be greater than those permitted by the gold points under fixed rates, increases the degree of risk incurred by speculators; and such an increase in risk can be expected to restrict the volume of speculative transaction.

13. Our final point that favors a floating rate and a permanent equilibrium of the balance of payments—at least in the view of the present writer—is that such an exchange arrangement makes the nation adhering to it live within its means. Observe that running a persistent balance-of-payments deficit implies, from the point of view of other countries, the transferring of real resources to the deficit country. People in the deficit country then have incomes exceeding their output and in the surplus countries they have less than what they have produced. Especially if the former country is comparatively wealthy, such an implicit borrowing through a balance-of-payments deficit may appear objectionable.

B. *Criteria either favoring pegged devaluation against a floating rate or not yielding a unique answer.*—We may now turn to the other criteria—those that either favor a fixed rate and a controlled devaluation, or are rather ambiguous. Two general remarks are in order at this point: First of all, the criteria pointing in the direction of an adjustable pegged rate are less numerous than those (just outlined)

in favor of a floating rate; second, most of these criteria are of practical and institutional, rather than of objective, theoretical nature.

1. Probably the most important argument put forward against a floating rate is that of speculation in foreign exchanges. It is argued that such speculation could produce fluctuations of the rate wider than otherwise would be encountered in the foreign exchange market. Historical evidence is either inconclusive in this respect, or tends to deny this contention. On theoretical grounds, it is impossible to provide either a firm proof or refutation. However, one important theoretical proposition is very much in order: If, under flexible rates, speculation is destabilizing, in the sense that cyclical fluctuations of the rate are accentuated through speculative transactions, speculators, as a group, necessarily have to lose money. What comes to the same thing, if the "speculators' industry" makes positive profits, it must stabilize (cyclically) the exchange rate. These propositions no longer hold under an adjustable-peg arrangement. Here speculative short-term capital movements can force the authorities to devalue, and thereby secure profits for the speculators.

Also, it will be recalled that a fixed-rate arrangement creates a certain asymmetry of risks assumed by the speculators. As there usually is no ambiguity as to the direction in which an administered rate would move, if it moved, speculators betting on a change in such a rate are taking the small risk of losing very little or nothing if devaluation does not take place, against a possibility of a substantial gain if the currency actually is devalued.

When we want to evaluate the dangers of destabilizing speculation in foreign exchanges, it must also be kept in mind that in the case of the United States roughly \$30 billion is cleared through the foreign exchange market every year for other than speculative purposes. In the light of these 30 billion, how important would the amounts employed for speculative transactions have to be, and how great the speculators' losses, in order to destabilize significantly the foreign exchange market, is a crucial question.

2. In the preceding paragraph (1) the problem of speculation was raised in respect to cyclical fluctuations of the exchange rate; here we want to speak about the role of speculation in a longrun exchange rate adjustment under floating rates. Indeed, with such unwise monetary and fiscal policies as would lead to a hyperinflation and to a fast depreciation of a currency, the speculative flight of "hot money" can only aggravate the situation and eventually lead to a complete collapse of the currency. But the floating rate that we are envisaging here is not one corresponding to a state of hyperinflation. Rather, we are speaking here of a floating rate that is to change by between zero and, at the most, 2 percent per annum (in a longrun trend), to accommodate minor divergences in rates of inflation in different countries and for possible structural changes that are necessary for a healthy operation of world economies. Given speculators' transaction charges, risk taking, uncertainty and imperfections of the speculators' market, it is highly unlikely that an average devaluation of a currency of 1 percent per annum would bring about important speculation on such a mild trend. However, it again has to be kept in mind that those are only theoretical a priori propositions, and that they could be refuted by actual events.

3. Closely related to the point raised in 2 above is the more general consideration of internal financial discipline. Many economists will argue that a monetary authority which does not have over its head the "Damocles' sword" of the balance of payments (owing to continuous equilibration through a floating rate) will practice a good deal less monetary restraint than it would under a fixed-rate arrangement. Again, only practical experience could give a full answer in each particular situation; however, it appears to the present writer that a rapid continuous depreciation of a currency can be as distasteful to a central banker as is a persistent or increasing balance-of-payments deficit.

4. The next, and really the only unambiguous objection or obstacle to a floating rate, and support for a fixed rate, is a practical one. First of all, those who, in practice, would have to administer a floating rate have had much less experience with such a form of the foreign exchange market than with the present fixed-rate arrangement; consequently, there is a resistance to something mostly unknown in favor of something well known and actually practiced. Second, there are national and especially international institutions directly geared to the present form of international payments. Such institutions always will provide a good deal of inertia against monetary reform that would undermine their very *raison d'être*.

5. Although it is not necessarily so, there is a good likelihood that variations in exchange rates under a floating-rate arrangement would generally be wider than those we presently observe within the gold points. Such variations then can, especially if they are fairly wide, increase the buyers' and sellers' uncertainty with respect to price. Some would argue that this would lead to a contraction of international trade in goods and services. While this may be so in a degree, we ought not to forget that even without a floating rate, prices fluctuate—some quite widely indeed. Existence of a forward market in foreign exchanges can then dispose of the risk element of international trade for those who do not want to assume an exchange risk.

6. A similar argument extends also to foreign investment. Especially with respect to portfolio investment, divergent rates of inflation in different countries and longrun changes in the exchange rate can hinder investment flows across national borders. In particular, investors in countries with more stable prices may be reluctant to purchase bonds from countries with higher rates of inflation. But in the long run, it will be observed, there is a real difference between the floating rate and an adjustable pegged rate in this respect only if the floating rate leads to faster currency depreciation than would a step-by-step readjustment of parity.

IV. CONCLUSIONS

The preceding analysis does not lend itself to an easy summary, since it is itself mostly a summary of other more detailed work. However, let us at least point out the most important conclusions.

Without any doubt there is an enormous benefit to be derived for the U.S. economy from an exchange-rate adjustment. Not only would our balance of payments be brought into equilibrium, but also it can be expected that our domestic employment, profits, and income, as well as our rate of economic growth would benefit from such a policy.

On the other hand, economic conditions of other countries would not be affected unfavorably.

Among the different forms that an exchange rate adjustment can assume, on grounds of an economic evaluation, a floating rate appears as the preferable arrangement.

In this report we have not gone into the discussion of the transition period between the present exchange arrangement and any other one, nor have we discussed the concrete forms of implementation of such a transition. Such an inquiry would require a thorough investigation, carried out by a number of experts. It would have to deal with such concrete problems as the attitudes of foreign authorities, what guarantees—if any—to give to our short-term creditors, how to organize the international short-term capital market, how to create or transform appropriate institutions, how to safeguard international financial stability immediately following the change of our exchange policy, and so forth. Indeed this report is understood by its author primarily as a statement illuminating the fundamentals of the mechanism of our balance of payments, rather than a concrete blueprint for immediate action.

EXCHANGE RATE ADJUSTMENT

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INTRODUCTION AND SUMMARY

The continuing international deficit of the United States and the lack of domestic buoyancy present economic policymakers with a perplexing problem. There are well-known methods for dealing with each of these conditions separately, but curing one symptom usually means aggravating the other. Evidently the two symptoms have to be attacked together, the more so because they appear to have a common cause: the overvaluation of the dollar in terms of other currencies. It would be rash, however, to jump from diagnosis to prescription. If overvaluation is the cause, devaluation would appear to be the cure, but to many people this remedy seems so farfetched that they will not even talk about it. Now devaluation is certainly not to be undertaken lightly, and if it is really inappropriate some harm may be done by merely discussing it. On the other hand the domestic and international economic situation of the United States is not showing much improvement as the years go by, despite a change of administration and a succession of short-term expedients, so it is natural to ask if a sufficiently wide range of policies has been considered. Treating exchange rate policy as unmentionable is hardly a promising way of finding out its advantages and drawbacks.

The present paper deals with various economic aspects of exchange rate adjustment. Without venturing a final evaluation (which would necessarily involve political considerations), it aims at providing a background for a balanced discussion.

In section 1 the need for public consideration of devaluation is more fully explained. The next section analyzes the Bretton Woods Agreement, which has governed international payments since World War II, and points out that exchange rate adjustment is an indispensable part of the prevailing system. In section 3 an alternative to Bretton Woods, namely flexible exchange rates, is examined and found unsuitable. Next, the equilibrium pattern of exchange rates is related to domestic cost conditions and long-term capital movements: the equilibrium exchange rate between two countries has to be equal to the ratio of unit factor costs. Section 5 condemns the restoration of international equilibrium by means of domestic depression, and argues that the initiative to exchange rate adjustment must come from the deficit countries.

In section 6 some data are presented from which it appears that the United States and Canadian dollars are strongly overvalued with respect to all European currencies, whereas the latter are in reasonable balance with each other. Section 7 points out that dollar devaluation is by no means inevitable, but that alternative methods of equilibrating the balance of payments have serious disadvantages. Reference to the gold problem in section 8 leads to the conclusion that if exchange rates are to be adjusted, this should be done by devaluing the dollar

rather than by revaluing European currencies; the so-called liquidity problem is also briefly considered. Section 9 deals with the practical difficulties to which devaluation of a key currency would lead, and suggests some remedies, including a write-up of existing dollar balances. Section 10 concludes the discussion.

1. THE NEED FOR A PUBLIC DISCUSSION OF DEVALUATION

Public discussion is necessary for three reasons. In the first place, the effectiveness of economic policy depends on the number and kinds of instruments that are used. If an important instrument (such as the exchange rate) is deliberately set aside, the attainment of such goals as full employment and growth becomes more difficult if not impossible. In the last few years the international deficit has become a critical constraint on domestic economic policy, to the point where on balance little or nothing can be done to stimulate the economy for fear of aggravating the deficit. Painful though devaluation may be, as a goal of economic policy exchange stability would not seem to rank as highly as full employment of labor and capital. Moreover it is by no means obvious that international financial stability is better served by immutability of exchange rates than by appropriate and timely adjustments.

In the second place public discussion is useful because fears of devaluation are to some extent based on sheer ignorance, which may be dispelled by objective analysis. Thirdly devaluation is one area where the Administration is not in a position to present a balanced appraisal to the public at home and abroad. The Administration is bound to uphold prevailing rates until they are changed by law, which implies that it cannot give rise to doubts about their permanency. To a question about the possibility of devaluation, the official answer can be nothing but denial of its usefulness. Sir Stafford Cripps, who in 1949 denied any intention to devalue the pound sterling until the very day it was actually done, has set the classical standard of behavior. This does not mean that the denial is necessarily insincere, but only that the question is pointless. The public will have to seek enlightenment elsewhere.

As against these advantages it could be argued that a discussion of exchange rates would weaken foreign confidence in the dollar, and thus precipitate an unnecessary financial crisis. This argument has merit if the underlying difficulties are ephemeral, but they clearly are not. The importance of confidence, moreover, should not be exaggerated. It may be of considerable significance in preventing minor disturbances from getting out of hand, but in the long run international equilibrium depends on more solid factors. It is to these factors that we now turn.

2. THE LOGIC OF BRETTON WOODS

Let us first recall some features of the prevailing international monetary system, the keystone of which is the International Monetary Fund. To understand the logic underlying the Bretton Woods Agreement, by which the Fund was created, it is convenient to distinguish three types of disturbances in a country's balance of payments:

(a) Minor and irregular disturbances due to seasonal factors, crop variations, changes in demand for particular export prod-

ucts, and so forth. Such disturbances have to be met from the country's own resources, amplified where necessary by borrowing from other countries, but without assistance from the Fund. The obligation of member nations to maintain fixed exchange rates is not affected either.

(*b*) More serious, but essentially temporary disturbances, especially those due to speculation against a currency and other major financial causes. A country's reserves may then be insufficient, and under these circumstances other countries may not be willing or able to make sufficient credit available. The Fund will then stand ready with relatively large amounts of foreign currency, repayable when the crisis is past. Again the country under attack is not supposed to alter the par value of its currency.

(*c*) Persistent imbalances stemming not from temporary factors but from the basic determinants of a country's competitive position. This situation is called "fundamental disequilibrium," and the remedy envisaged by the Bretton Woods Agreement is devaluation or revaluation; any financial assistance provided in this case is intended merely to smooth the transition to a new long-term equilibrium. Unfortunately the agreement does not spell out how a "fundamental disequilibrium" can be recognized, and the distinction between cases (*b*) and (*c*) is therefore not as clear cut as it should be. In fact a "fundamental disequilibrium" may not show up in the balance of payments at all, and manifest itself only in the country's domestic economy. The definition of "fundamental disequilibrium" is discussed further in section 4 below.

The remedies provided for each of the three types of disturbance, constitute (at least in principle) a complete system of international adjustment in which every country retains considerable freedom over its domestic economic policy. It is to be noted, however, that each of the three remedies is essential to the proper functioning of the mechanism. The third, in particular, cannot be dispensed with lest the whole system breaks down for lack of liquidity, for there quite rightly is no provision for dealing with continuing deficits of any country. For better or for worse, exchange rates are now on the principle of the "movable peg," a description in which both words are equally important. As far as Bretton Woods is concerned, the effect of dollar devaluation would be not to destroy, but to fulfill.

It is true that the system has not worked exactly as planned. The idea of changes in par values, in particular, has met with great resistance on the part of some leading countries with surpluses or deficits, probably because of a concern that frequent changes in par value would open the door to destabilizing speculation. It would be premature to conclude from this experience that the system will not work at all; indeed the events of the last 5 years have shown only too clearly that a departure from the logic of Bretton Woods will lead to ever-increasing financial complications, of which the so-called liquidity problem is a prime example (see sec. 8). It is conceivable, however, that Bretton Woods should be scrapped in favor of an alternative, which we shall now consider.

3. IS BRETTON WOODS WORTH SAVING?

A return to the classical gold standard, with its subordination of the domestic economy to international transactions, may safely be ruled out. There is only one serious alternative to the prevailing system, namely flexible exchange rates. Some experience with the latter was gained during the 1930's, and more recently in Canada. No very definite conclusions can probably be drawn from this experience, but the principle itself has considerable support among academic economists and some others.¹

It may readily be conceded that flexible rates are capable of smoothing movement to international equilibrium without undue strain on domestic policies, even though the effect of exchange rates on imports and exports is often subject to considerable time lag. The dangers of destabilizing speculation have been frequently exaggerated by opponents; the Canadian experience, for instance, does not suggest that speculation is much of a problem at all. Nevertheless there are three powerful reasons for believing that the universal adoption of flexible rates would be a step backwards.

The first and most important reason is that rate flexibility is inconsistent with increasing international integration. Within a single country there are no variations in exchange rates: the California dollar is always at par with the New York dollar, an arrangement which greatly simplifies interstate commerce and monetary policy. These advantages are bought at a price, as the phenomenon of persistently depressed areas indicates, but a program of resettlement and area redevelopment can overcome these problems. As economic integration proceeds, currency differences will inevitably become more burdensome, so that currency unions will become more attractive; while at the same time the need and the willingness to coordinate domestic economic policies will be reinforced. Fixed exchange rates facilitate the formation of currency unions, while variable exchange rates tend to isolate the economies of different countries from each other.

Secondly, the recent experience of Canada shows how hard it is to realize the advantages for domestic policy which exchange flexibility is supposed to provide. In particular Canada was no more able to achieve full employment than the United States. It is often said that Canada mismanaged its affairs, but can we be confident that other countries will have more success? The technical problems of coordinating monetary, fiscal, and exchange-rate policy appear to be formidable; their solution calls for a degree of economic statesmanship and flexibility in decisionmaking that is not readily available anywhere.

Lastly, under flexible rates a heavy burden is put on the forward exchange markets because of the universal need for hedging positions in foreign currencies. In their present form these markets seem to be poorly organized for such an expanded task. They are usually accessible only to banks and large firms; participation by outside speculators (which is important for the efficient provision of hedges, as the commodity markets show) is discouraged; publicity and supervision are

¹For a persuasive statement see E. Sohmen, "Flexible Exchange Rates: Theory and Controversy" (Chicago, 1960).

minimal or nonexistent. No doubt the organization could be improved, but this would take much time and the subjugation of powerful vested interests.

We can only conclude, therefore, that flexible rates are not an acceptable substitute for the "movable peg." The free world has chosen the Bretton Woods system, and now it has to live with it.²

4. THE EQUILIBRIUM LEVEL OF EXCHANGE RATES

The Bretton Woods Agreement provides little guidance in the search for "correct" exchange rates. In fact it only gives a negative indication, namely in section 5(a) of article IV, according to which "A member shall not propose a change in the par value of its currency except to correct a fundamental disequilibrium." This is a very important clause because it rules out competitive devaluation (see sec. 8), but it is useless for the present purpose. The only inference which it warrants is that par values should reflect fundamental conditions rather than more transitory factors such as the state of the balance of payments at any one instant of time.

What are these fundamental conditions? Clearly they are conditions controlling the balance of payments in the long run, which means in particular the ability to export, the propensity to import, and the direction of capital movements. Let us for the moment abstract from capital movements and consider only goods and services. The ability to export depends primarily on the level of costs in the exporting country compared to cost prevailing in its foreign markets, the conversion of prices being made at official exchange rates after allowance for tariffs and freight charges. Confining ourselves for the sake of brevity to the labor element in costs (which is by far the most important part), we see that a country can export much if its unit labor costs (i.e., wages per unit of output after correction for productivity) are low and if its export prices are converted into import prices at favorable exchange rates; that country will then also import relatively little.

For foreign trade to be in longrun balance (still abstracting from capital movements) it is necessary, roughly speaking, that unit labor costs, converted at official exchange rates, be the same everywhere. This implies that the equilibrium exchange rate between two countries must be equal to the ratio of unit labor costs or, more generally, unit factor costs if other inputs are taken into account. If the official value of country A's currency in terms of country B's currency is higher than the ratio of unit factor costs, A's currency is overvalued; as a result, A's balance of trade will show a long-term deficit, or its domestic economy will be depressed, or both. Countries A and B will then be in fundamental disequilibrium, except possibly for offsets from other items in the balance of payment.

The introduction of capital movements modifies the above conclusion to some extent. If these movements are unrelated to relative

² Various proposals for reforming Bretton Woods have been made in recent years, the Triffin plan being the best known. These proposals are aimed at the second type of disturbance mentioned in sec. 2 above; they do not have any relevance to the third type, with which this paper is mostly concerned. There may be a good case for enlarging the resources of the Fund, but freely available liquidity can never be a substitute for more basic corrections if they are indicated, and can indeed make it too easy to postpone the day of reckoning.

costs (as is the case with foreign aid or reparation payments) the capital-exporting country will have to have a surplus of commodity exports, and its unit factor costs, calculated in terms of foreign currency, will have to be correspondingly lower, except to the extent that the capital-importing country increases its demand for current imports from the capital-exporting countries. Conversely, if a country receives foreign aid, it may be able to afford a somewhat overvalued currency.

Not all capital movements, however, are independent of relative costs. Private investment abroad is frequently motivated by cost considerations. U.S. firms, for instance, often invest abroad because they find production costs elsewhere, calculated at official exchange rates, lower than in this country. This U.S.-controlled foreign production³ in turn competes with U.S. exports. Thus overvaluation is bad not only for commodity trade but also for an important class of capital movements.⁴

In the case of the United States, consequently, overvaluation of the dollar is a danger on all counts. Because of large oversea commitments in the form of foreign aid and military expenditures, this country should have a considerable surplus in commodity trade, quite apart from the further movement of long-term capital induced by cost differences. There has been a surplus, but it has not been large enough. Moreover, the surplus is due in large part to unpaid exports (including tied loans and grants) and to import restrictions (such as those on oil and textiles and on military expenditures), rather than to competitive ability.

5. RESTORING INTERNATIONAL EQUILIBRIUM BY DOMESTIC DEPRESSION

The U.S. balance of payments also gives too favorable a picture, because imports have been held down by the mildly depressed state of the domestic economy. This is, no doubt, the most disturbing aspect of overvaluation. A deficit in the balance of payments, even a prolonged one, is not a matter of great concern as long as there are ample reserves. The United States, which accounts for only 16 percent of world trade, even now has about 40 percent of the free world's monetary gold, though much of this gold is tied up in anachronistic reserves against domestic currency issues. The exchange of several billion dollars' worth of buried gold for productive investments abroad in itself was certainly a good bargain for the United States, even if it would have been still better if the funds involved had found employment at home. But this is just how overvaluation af-

³ An article in the September 1962 Survey of Current Business puts it at no less than \$25½ billion, in 1961 a rise of 40 percent over 1957. In that year, \$5.6 billion was needed to finance new U.S. investments abroad, of which nearly half was financed by capital movements from the United States and the rest from internal sources.

⁴ It is sometimes maintained that the large net outflow of long-term private capital from the United States is caused primarily by the higher rate of economic growth abroad, especially in continental Europe and in Japan. This explanation, however, puts the cart before the horse. The lower growth rate in the United States can itself be largely attributed to overvaluation of the dollar (see the next section) and is therefore not a cause but an effect. (For evidence on the cost advantages of American investment in Europe see the Conference Board study quoted in footnote 7 on p. 296. Another proposed explanation is equally dubious, namely, that it is natural for the United States to export capital because at its high income level it must have a surplus of savings. The fact is that of 12 high-income countries for which comparable data are compiled by the United Nations, the United States has the lowest saving-income ratio except for the United Kingdom where it is only slightly lower. Even in as poor a country as Japan, the savings-income ratio is more than twice as high as in the United States. Capital exports from this country, in effect, are made possible not by high savings, but by low domestic investment.

fects the domestic economy: not only by reducing exports, but also by discouraging domestic investment in favor of foreign investment; in addition, it hampers the adoption of fiscal and monetary policies to stimulate the economy because they would aggravate the international deficit. Slowing down the domestic economy is one way in which international equilibrium may be gradually restored, but it is a vastly more expensive and risky way than exchange rate adjustment.

We should recall, in fact, that it was precisely the tendency to cure international deficits by domestic depressions which made the classical gold standard unacceptable to modern ideas and which brought about the Bretton Woods Agreement with its greater freedom for domestic policy. The older method of adjustment is expensive, because the output once lost can never be regained, and risky, because the depression may not remain confined to the country whose currency is overvalued.⁵

While slackness in the domestic economy is to be expected with overvaluation, the opposite will be found in countries with undervalued currencies. It is no accident that in most European countries unemployment is now very low and that labor shortage is a problem in many industries there. The undervalued countries, in effect, are importing employment opportunities from the overvalued countries. It does not follow, however, that the results of disparities in exchange rates cancel each other for the world as a whole. Output in the overvalued countries is kept down by lack of demand, but for their more fortunate competitors capacity limitations curtail the corresponding increase in output. The labor force, in particular, soon becomes a bottleneck. The competitive advantage of undervaluation cannot, therefore, be fully realized, and it is in the interest of the country to increase the par value of its currency.⁶ If it does not do so, inflation will gradually erode the undervaluation by raising the general level of costs and prices. This is a less painful cure for undervaluation than a depression is for overvaluation.

We can see now why, generally speaking, the initiative to major adjustments in exchange rates should be taken by the countries with overvalued currencies. An undervalued country will avoid nothing worse than inflation by revaluing, while at the same time it exposes itself to some risk of (at least temporary) unemployment by reducing the demand for its exports. An overvalued country, conversely, will reduce unemployment by devaluing at some risk of inflation, but all other measures against unemployment would equally involve a risk of

⁵ That this risk is by no means extinct can be seen from developments in the gold market during the second quarter of 1962 (see Survey of Current Business, September 1962, p. 12). Of the \$300 million worth of gold produced in that quarter, less than 1 percent went into monetary gold stocks (the normal fraction is about 50 percent). Apparently private investors abroad, frightened by the slump in Wall Street, stepped up their hoarding of gold. Such a flight into gold, if repeated on a larger scale, may well reduce the demand for other commodities enough to precipitate a worldwide depression of the 1929 type. The only remedy would be massive sales of gold by central banks, combined with monetary and fiscal measures to counteract the deflationary effect of such sales, but these measures may then come too late. It is clearly wiser not to permit a gradual decline into a depression—the above remarks also show that any adjustment of exchange rates has to take careful account of repercussions on the gold market (see sec. 8 below).

⁶ This is what Germany and the Netherlands did in March 1961. At the time, it was widely felt that a 5-percent revaluation was too small and caused more trouble than it was worth. It is true that the revaluation left the mark and especially the guilder strongly undervalued with respect to the dollar, but it did restore their relations with most other currencies to a more durable level. The U.S. market is not of overwhelming importance to Germany and Holland, so it would be unreasonable to expect these two countries to eliminate the overvaluation of the dollar without supporting actions by other countries.

inflation. Indeed this pattern of risks may induce surplus countries to oppose devaluation by major deficit countries (quite apart from financial considerations, of which more in sec. 8), though this opposition is basically shortsighted. In the long run a balanced pattern of exchange rates, by maximizing world output, is in everybody's interest.

It follows that a devaluation of the dollar, while improving the competitive position of the United States, would not do so at the expense of its overemployed competitors.

6. INFORMATION ON OVERVALUATION AND UNDERVALUATION

In section 4 it was argued that exchange rates are in equilibrium, apart from long-term capital movement, if they reflect unit factor costs. It appeared also that in the United States long-term capital movements are such that the dollar may have to be undervalued. The assertion that the dollar is in fact overvalued was freely made in the preceding pages, and a few words should now be said about the evidence in support of this assertion.

Information about unit factor costs in different countries is hard to obtain directly⁷ but there is an indirect and much simpler way of making the necessary comparisons. In the long run wages are equal to the marginal product of labor in terms of commodities sold locally and for export. Domestic production competes with imports, which means that prices are equalized and that marginal product can also be measured in terms of commodities consumed rather than commodities produced. The competitive position of different countries can therefore be evaluated from the relative price levels of consumption goods. For this purpose it is necessary to look not only at commodities that enter into international trade, but also at all other commodities in the proportions in which they are normally consumed in each country.

The theory just outlined is not new (though this particular justification apparently is). It is known as the purchasing power parity theory and was popular in the early 1920's when it was often applied uncritically; later the pendulum swung the other way, but its critics usually overlooked the relation between prices and costs which is basic to the theory. Since then a more balanced view has come to prevail, thanks to the work of Metzler.⁸ If used with circumspection the PPP theory (for short) is still the only approach to a limited but important problem. It is not a general theory of international trade, nor does it give absolute prescriptions for correct exchange rates. It applies only to the long run, and in fact does not really refer to purchasing power at all but to productivity (or, to save the initials, to "production power"). We have seen already that a country may very well be in long-run equilibrium with an overvalued or undervalued currency, depending on the state of its capital movements in the long run (see sec. 4 above). The application of PPP theory also leads to an index-number problem, but its quantitative importance is probably small in most cases (see the discussion below). All in all it would be most un-

⁷ See, however, the study by D. C. Palge and G. Bombach ("A Comparison of National Output and Productivity of the United Kingdom and the United States," OEEC, Paris, 1959). A study by the Conference Board ("Costs and Competition," Studies in Business Economics No. 73) contains pertinent material of a somewhat different nature.

⁸ In "International Monetary Policies," Postwar Economic Studies No. 7 (Board of Governors of the Federal Reserve System, 1947).

wise to ignore the unique insight which PPP calculations can afford.

In the present paper we shall present data from only one source, namely the German Statistical Office, which publishes monthly data for a large number of currencies in comparison with the German mark.⁹ For this purpose it has made extensive surveys of retail prices in various countries. Calculations and surveys of this sort present many technical and conceptual difficulties and it should be emphasized (as the German Statistical Office itself does constantly) that the resulting figures are subject to error, as are all economic statistics. It appears, however, that the figures agree well with similar studies made elsewhere, such as the well-known OEEC studies by Gilbert and associates which are now somewhat out of date.

It is also worth pointing out that the calculations reprinted here were not originally intended for the study of exchange rates or international trade. Their initial purpose related to war damage payments, but since then they have found application in many other contexts. In any case they are true purchasing power parities and as such relevant to the problems discussed here.

For the U.S. dollar the German Statistical Office found a value in April 1962 of DM2.61 if the German consumption pattern was used for weighting the individual prices, and of DM3.64 if the American consumption pattern is used. Each of these patterns biases the result in favor of the country whose weights are used. The German consumption pattern gives more weight to commodities that are cheap in Germany, and therefore makes Germany appear cheaper than it really is; conversely for the U.S. pattern. It is well known from the theory of index numbers that the geometric mean of the two values usually gives the best compromise between the two biased sets of weights. In this case the geometric mean is DM3.12, which means that in terms of purchasing power the dollar is now worth 22 percent less than it is at the official exchange rate of 4 German marks to the dollar. This implies a very substantial overvaluation of the dollar which can certainly not be wholly attributed to statistical defects of the calculation.¹⁰

We shall have more to say about these figures later; for the moment let us see how currencies rate by this standard. The table gives the percentage by which the PPP of a currency (taken as the geometric mean described above) differs from its official exchange rate with respect to the mark.

*Overvaluation (—) and undervaluation (+) with respect to the mark
in March 1962*

	<i>Percent</i>		<i>Percent</i>
Austria.....	+21. 2	Netherlands.....	+29. 2
Belgium.....	+4. 8	Norway.....	+3. 9
Canada.....	-23. 1	Sweden.....	-8. 8
Denmark.....	¹ +17. 3	Switzerland.....	-11. 7
France.....	+4. 2	United Kingdom.....	+3. 9
Italy.....	-2. 2	United States.....	-22. 2

¹ January 1962.

⁹ The exact reference is Statistisches Bundesamt, "Internationaler Vergleich der Preise für die Lebenshaltung," Fachserie M. Reihe 10. The issue of May 1962 was used, since German prices have not changed on balance.

¹⁰ It would nevertheless be desirable if a U.S. statistical agency also undertook calculations of this sort. Apart from the German bureau several international organizations (notably the Organization for European Economic Cooperation, the International Labor Office, the European Economic Community, and the United Nations) are active in this field, but apparently not a single organization in this country.

It appears that the mark is close to PPP with such important European currencies as the pound sterling, the French and Belgian franc, the lira, and the Norwegian crown. It is clear, therefore, that in the dollar-mark comparison it is not the mark that is out of step; in fact the mark itself is overvalued if anything. The only other currency showing a considerable overvaluation is the Canadian dollar, which has more recently been partially corrected by devaluation. The Swiss franc and the Swedish crown also appear to be overvalued, though must less so than the United States and Canadian dollar. Of the other currencies the Austrian shilling, the Danish crown, and especially the Dutch guilder seem to be substantially undervalued.¹¹

The pattern of overvaluation and undervaluation has not changed greatly in the postwar period, except as a result of devaluations and revaluations. The dollar-mark ratio has had a slightly declining trend, but by no means as fast as is sometimes believed. It is true that German wage rates have risen rapidly during the last 2 or 3 years, but this has not led to a corresponding rise in prices; moreover in Germany and in most other European countries prices and wages now appear to be leveling off; in September 1962 export prices and the cost of living were mostly equal or only slightly higher than in March 1962. The wage increases have been largely absorbed by greater productivity, reduced profits, and cheaper imports; and prices and wages in the United States have not been stationary either. Even if the trends of the past 2 or 3 years continue, which is unlikely, it might take 8 or 10 years before the dollar ceases to be overvalued with respect to the mark.

The cause of the overvaluation of the dollar can be pinpointed with considerable assurance: it is the series of devaluations undertaken in September 1949, which in the case of the pound sterling, the guilder, and other major currencies amounted to about 30 percent. There was much short-term justification for this large cut, but it certainly went too far from a long-term point of view. Until the middle 1950's the true cost conditions remained hidden because Europe and Japan were still recovering from the war, so that delivery times were long and prices sometimes meaningless. These were the reasons of the so-called "dollar shortage," which disappeared as soon as peacetime conditions were restored.

7. IS DOLLAR DEVALUATION INEVITABLE?

The mention of "dollar shortage" serves to remind us that persistent phenomena are not necessarily permanent. At a time when learned authorities were still seeking cures for the dollar gap, it had already reversed itself, so we may well ask ourselves whether we are not now worrying about a dollar surplus that soon will vanish without any drastic measures.

Therefore let it be stated clearly and unambiguously: it is perfectly possible to cure the balance-of-payments deficit without devaluing the dollar. All that is needed is time, continued prosperity abroad, continued unemployment in the United States, and a variety of mildly protectionist measures. "Time" in this context means an ample gold stock (liberated by repeal of the gold cover), continued willingness

¹¹ It is interesting to pursue the relationship between overvaluation on the one hand and economic growth and employment on the other hand, but we cannot do so here. See the article by M. Shinohara in the 1961 volume of "Weltwirtschaftliches Archiv," reprinted in his book "Growth and Cycles in the Japanese Economy" (Tokyo, 1962).

on the part of foreigners to accumulate dollar balances, and a tendency for prices to rise less here than abroad. Continued prosperity abroad is necessary to maintain the demand for U.S. exports, and a continued mild depression at home to keep the U.S. demand for imports in check (a reduction of unemployment to 3 percent of the labor force would probably raise imports by about \$1 billion). A worsening of the domestic situation, however, might precipitate a crisis of confidence and a breakdown of the international monetary system. The protectionist measures alluded to include quantitative restrictions on oil and textiles and especially the diversion of military expenditures to the United States, even where such diversion raises the dollar cost by 50 percent.

It is also true that the Government could take a number of steps short of devaluation to improve the payments position. Some of these, such as greater sharing of other countries in military expenditures and foreign aid, have been tried for years without much success.¹² The advance repayment of U.S. loans to other countries has had a more favorable response, but only provides temporary relief; much the same is true of the attraction of foreign short-term funds by offering higher rates, which might actually further depress the domestic economy. Stricter tax treatment of foreign income may also provide some relief. Perhaps the most promising measure would be a drastic lowering of farm prices,¹³ which would permit this country to realize its tremendous cost advantage in the production of grains, cotton, and many other farm products without the need for giveaway schemes.

Devaluation is therefore avoidable, but only at a heavy price. The crucial item in the above list of preconditions is the state of the domestic economy. A choice will have to be made between maintaining exchange rates and reviving the economy. This choice turns largely on the practical difficulties of devaluation, and to these we turn in section 9. First, however, we have to be more specific about the desirable magnitude of devaluation if one were undertaken, for the practical consequences depend largely on that.

8. EXCHANGE RATES, GOLD AND LIQUIDITY

According to the analysis of this paper the purpose of exchange rate adjustment would be to make official rates correspond more closely to unit factor costs in each country and to other long run determinants of the balance of payments. What matters, therefore, are the rates at which currencies are exchanged for each other, and not the rate at which they are exchanged for gold. Nevertheless the price of gold is an important element in the problem because it is impossible to alter exchange rates without changing the price of gold in at least one country.

Changes in the price of gold are important because of their effect on the supply of and demand for gold. An influential school of

¹² It is beyond dispute that a large part of U.S. outlays for defense and foreign aid also serve the interests of European countries which could afford to contribute; on the other hand these countries are not likely to pay their share of the cost without receiving a greater measure of control. Both in defense and in foreign aid European ideas often differ radically from American ideas.

¹³ For a method of doing this without immediate repercussions on farm income see H. S. Houthakker, "Towards a Solution of the Farm Problem," *Review of Economics and Statistics*, February 1961. A bill to this effect (H.R. 13240) was recently introduced by Representative Udall of Arizona.

thought holds that there is not enough gold in the world to meet the world's needs for liquidity, so that either the gold supply would have to be enlarged by raising the price of gold, or substitutes have to be introduced. We shall have more to say about the liquidity problem later in this section; for the moment it should be noted that a fall in the gold price in gold-producing countries would reduce the supply and therefore aggravate the (real or imaginary) liquidity problem.

This constraint would seem to rule out one method of exchange rate adjustment that has occasionally been proposed; namely, that the surplus countries should revalue their currencies, thereby making the foreign value of the dollar more realistic. To the extent that the revaluing countries would include gold producers (notably South Africa, Canada, and Russia) this would adversely affect the supply of gold. In any case the figures quoted in section 6 suggest that most European currencies are in reasonable equilibrium with each other, so that they would have to revalue together; a unilateral action by the United States (possibly joined by Canada) would clearly be much simpler.

As to the demand side, a rise in the gold price would have undesirable effects on the large speculative holdings of gold. Although in some industrial uses gold will behave like any other commodity, the demand for which shrinks as the price goes up, this is probably not true for gold as a store of value. A rise in the price of gold would vindicate the actions of speculators and hoarders. This would be undesirable not so much because of the resulting windfall profits, but because it would probably lead speculators to expect further rises in the gold price; the flight into gold mentioned in section 5 above might thus be set off, with all its possibly disastrous consequences. Such "perverse" expectations are not peculiar to the gold market; when the German mark was revalued last year by only 5 percent many speculators also expected a further revaluation, but they soon realized they were wrong, and no great harm was done. The case of gold, however, is different: the gold stock is so large compared to annual production and consumption that excessive hoarding may lead to an artificial scarcity in which a price rise may feed upon itself. It is imperative to avoid creating the impression that the world's liquidity problem can only be solved by successive increases in the price of gold. This has also been the policy of the U.S. Treasury and its partners in the Basle agreement, designed to keep fluctuations in the London gold market within bounds.

These considerations of gold supply and gold demand together provide us with two limits on the price of gold after exchange rate adjustment: the price should neither fall in the gold-producing countries nor rise in the gold-hoarding countries (such as France and India). A rise in the U.S. price of gold would not influence any appreciable number of speculators because U.S. residents are not allowed to own gold; it would stimulate U.S. gold production, though probably not to any great amount.

We see once more than exchange rate adjustment would have to be brought about by devaluation of the U.S. dollar, with most other currencies (except probably the Canadian dollar) staying at their current par values.

It is widely believed (partly on the basis of informal statements originating in European central banks) that in the event of dollar devaluation all other countries would immediately devalue their currencies as well. Exchange rates would then stay at their present levels, with only the gold price rising everywhere. This threat should not be taken too seriously. *Competitive devaluation would be a gross violation of the explicit language of Bretton Woods.* (See sec. 5(a) of art. IV, quoted in full at the start of sec. 4 above, which permits devaluation only to "correct a fundamental disequilibrium.") Devaluation of most European currencies (including the pound sterling, the French and Belgian francs, the guilder, and the Danish and Norwegian crowns) would require prior approval from the International Monetary Fund under section 5(c) (iii) of article IV, the penalty being loss of access to IMF facilities, or expulsion. Quite apart from international good faith, a country as heavily dependent on the IMF as Britain is would hardly take this risk. Germany, Italy, Sweden, and Japan are not covered by the penalty clause (at least for moderate devaluations), but they are still bound by the prohibition of competitive devaluation.

The approximate amount by which the dollar would have to be devalued (if at all) is indicated by the purchasing power parity data in section 6, though these should perhaps be supplemented by more accurate calculations made specifically for the problem at hand. In view of price trends in Europe and the United States, and of the relatively small size of the U.S. deficit, a dollar devaluation by about 15 percent might be sufficient to restore international equilibrium in the long run; this would raise the gold price to a little more than \$41 per ounce. It is important to avoid devaluation by too small a percentage because this would lead to adverse speculation; on the other hand an unduly large devaluation would lead to difficulties later on. Of course the percentage selected could not be expected to solve the world's problem in all eternity, but it should at least have an appearance of permanence.¹⁴

We mentioned the alleged shortage of liquidity in passing, and this is perhaps a suitable place to say a few words about it. Those who worry about liquidity point to the fact that the gold stock is not rising as rapidly as the value of world trade. As Under Secretary Roosa in a recent article has pointed out,¹⁵ this is no great cause for concern and does not warrant any drastic measures. The world has learned to use gold more and more efficiently; in fact it is not long ago that gold was used extensively for domestic monetary purposes (remnants of this use survive in central bank laws in many countries). The tendency toward international economic integration will lead to still greater economies in the use of gold, and one day the need for monetary gold may disappear altogether. At the moment there is no case for a *general* rise in the gold price, though it would be imprudent to let the price fall.

¹⁴ A devaluation of the dollar by more than 10 percent would require the consent of the IMF, which might not be automatic if European countries object. For this reason it may be necessary (though in itself undesirable) to limit the devaluation to 10 percent if the diplomatic situation appears unfavorable.

¹⁵ "Assuring the Free World's Liquidity," Business Review, Supplement, Federal Reserve Bank of Philadelphia, September 1962. It is to be noted that this excellent essay does not deal with the problems raised in the present paper.

It should also be pointed out that persistent overvaluation and undervaluation put a great strain on international liquidity, which may be one reason why so many people believe there is a shortage. The international financial system cannot be expected to cope forever with the imbalances among major countries that now exist. There may or may not be a liquidity problem at the moment, but there probably will be one if these imbalances are not corrected.

It is also true, and this is another reason for concern, that the gold stock is very unevenly distributed, so that certain countries suffer from lack of liquidity in relation to their commitments. The outstanding example is Britain, whose gold stock is less than a quarter of its short-term liabilities. Consequently relatively minor adversities in international trade threaten to wipe out Britain's reserves. The recurrent sterling crises are apparently not due to any competitive weakness of the British economy, but to Britain's inability to accumulate sufficient reserves. In other words, Britain is held back by being banker to the sterling area. Although the United States is in a much better position, there is also a lesson for this country here: no single country should try to provide the rest of the world with reserves. Secretary Roosa's advocacy of multilateral reserves, in the previously quoted paper, deserves the fullest support.

9. PRACTICAL DIFFICULTIES OF DEVALUATION

In the preceding sections a number of difficulties that devaluation might cause have already been dealt with, but there are more which will now be taken up.

The most obvious problem arises from the existence of large short-term dollar balances, held mostly by foreign central and commercial banks. This country is willing to convert these balances into gold if they are held by central banks and if the gold is to be used for monetary purposes. The balances held by commercial banks are not convertible into gold, but their attraction nevertheless lies partly in the status of the dollar as the only major currency with a direct link to gold. Like the pound sterling the dollar is a "key currency," so that any revision of exchange rates would affect the reserve position of many other countries.

The reason why some central banks (though by no means all) are willing to hold a large part of their reserves in the form of dollars rather than in gold is simply that these dollars earn interest. In return for this interest foreign holders of dollars accept the risk of devaluation, a measure that is undoubtedly within the rights of the United States and for which history offers abundant precedents. From this point of view it might seem, therefore, that foreign holders of dollars have no grounds for complaint if the dollar is devalued, since their interest earnings could have provided them with a reserve against this contingency. The United States has steadfastly refused to give any guarantee against devaluation of the dollar, so it is clear that foreigners who choose to hold dollars do so at their own risk. It is true that responsible officials, from the President down, have repeatedly stated that the dollar will not be devalued, but we saw in section 1 how such statements are to be interpreted. Furthermore, the

privilege which the United States gives to foreign central banks of obtaining gold for monetary purposes is inevitably subject to limitations. Thus if Germany attempted to turn all its dollars (amounting to more than \$2 billion) into gold the United States would probably refuse.

From the equity point of view, then, it would seem that devaluation of the dollar does not call for any special treatment of existing foreign holdings. But the matter is not quite so simple. A devaluation of the dollar would affect the total amount of world liquidity; by how much depends on the unit of measurement. If we reckon everything in current dollars liquidity would increase (assuming that exchange rate adjustment takes the form mentioned in sec. 8), but reckoned in gold liquidity would decrease. Neither of these measures has any special authority, but the fact remains that some countries will consider their liquidity decreased if their dollar balances are worth less in terms of their own currency. A case could be made, therefore, for the United States to write up the dollar value of foreign-held dollars by the amount necessary to keep their value in terms of the holder's currency unchanged. This writeup would, of course, apply only to net holdings. It would not arise in the case of countries which devalue their currencies by as much as the dollar. The net cost to the United States of this writeup would be small since net foreign balances are only slightly larger than the gold stock, the increased dollar value of which would provide most of the necessary funds. After devaluation the United States would continue to offer gold convertibility to central banks on the same terms as now, so there is no reason why devaluation should destroy the dollar's usefulness as a reserve currency.

A most serious practical problem would be that of timing. Like most measures of economic policy, devaluation should ideally be undertaken in cold blood rather than in the midst of a crisis. This, however, may be difficult because a change in the gold price requires congressional action to amend the Bretton Woods Agreements Act of 1945. It would clearly be undesirable to initiate such action on a highly delicate subject unless it can be completed in a very short time. Unfortunately, the required sense of urgency may be lacking as long as there is no actual emergency. This is an additional reason why, as argued in section 1, greater public attention to this problem is needed.

Public discussion may also lead to clearer understanding of the matter of prestige. It is typical of little understood topics that they are approached in emotional terms, and exchange rates are no exception. Devaluation may conceivably diminish the prestige of the United States among casual observers but the persistence of large-scale unemployment will do so much more surely and seriously. And this, as we have seen, is the alternative against which devaluation should be evaluated.¹⁶

¹⁶ One other practical matter which should be briefly mentioned is the effect of devaluation on the domestic price level. Since imports of goods and services account for less than 4 percent of gross national product the direct effect of a 15-percent devaluation on the Consumer Price Index would only be about one-half of 1 percent.

10. CONCLUDING REMARKS

It is not up to the academic economist to strike a balance between the pros and cons of exchange rate adjustment. One purpose of this paper has been to enumerate and analyze the principal implications of dollar devaluation, but there may well be disagreement about the emphasis given to the various elements of the problem, and important aspects may have been inadvertently ignored here. The political problems mentioned toward the end of section 9 are especially hard to evaluate by an outsider, yet they may well be crucial. If the economic analysis presented here stimulates further thinking, this paper will have attained its goal.

SOME CONSEQUENCES OF DOLLAR SPECULATION
IN GOLD

By

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SOME CONSEQUENCES OF DOLLAR SPECULATION IN GOLD

I. INTRODUCTION

This paper questions the traditional conception of the relationship between international transfers of gold and deficits in the balance of international payments. Usually the balance of international payments is discussed first and, if there is a substantial excess of international payments over receipts, accompanied by an appreciable outward flow of gold, it is assumed that the former caused the latter. In consequence, solution of the problem of the loss of U.S. gold is made to hinge upon prior elimination of the balance-of-payments deficit.

It is proposed that it might be as logical to consider the problem of gold first, and to relate its loss to the balance-of-payments deficit. If so, it is inappropriate to conceive of the problem of the "balance-of-payments deficit" as central, and the problem of gold as subordinate. Two problems of equal importance need solution, namely (a) the loss of gold, and (b) the persistent balance-of-payments deficit. It is true that they are interrelated, but there is no reason to assume that the solution to either problem automatically will provide a solution to the other.

One of the difficulties in the way of finding solutions to these problems is that even experts do not agree as to the nature of the problem to be solved. There is even failure to agree upon the size of the balance-of-payments deficit itself. The experts differ as to what should be included in computing the deficit, and some even suggest that there is no deficit at the present time.

More and more it is becoming clear that what is really troublesome is not so much the balance-of-payments deficit as the loss of gold and the undermining of international confidence in the dollar as the free world's monetary standard. It is contended in this paper that a persistent outward flow of gold can, in effect, be a cause, as well as an effect, of persistent deficits in the balance of international payments.

THE THESIS

The thesis of this paper may be summarized as follows:

1. Some of the gold losses of the United States may be attributed to recent and current deficits in the Nation's balance of international payments. Some of them, however, may be attributed to speculation in gold, in anticipation of dollar devaluation relative to gold (that is, an increase in the dollar price of gold). Such speculation is encouraged by the huge accumulation of foreign dollar balances that have arisen out of past deficits in the balance of international payments. The outflow of gold during any given period of time, however, is not necessarily directly related to the balance-of-payments deficit during that period.

2. To the extent that the gold losses are being caused by speculation in gold, there is little that can be done to prevent them by increasing interest rates.

3. An important factor encouraging speculation in gold is assurance by the U.S. Treasury that, at all times, it will buy all gold presented to it by foreigners at the predetermined price of \$35 per ounce. This assurance provides a price floor below which the world dollar price of gold cannot fall.

4. One way of helping to curb speculation in gold would be to remove this price floor. Without such protection, speculators in gold who are betting that the United States will raise the price of gold, would face the prospect of losses, as well as gains.

5. Such action, particularly if taken in conjunction with proposals already made that the United States issue gold certificates to guarantee its pledge to redeem in gold the dollar balances held in the United States by foreigners, would go far toward preserving international confidence in the dollar.

SOME BASIC PRINCIPLES RESTATED

There is danger, in the world of affairs, of losing sight of fundamental principles and, without realizing it, of substituting for them preconceptions that impede logical thinking and intelligent action. In no problem area is it more important that principles be clearly understood than in the area of gold and the balance of international payments.

1. *Value of gold not intrinsic.*—Nothing, not even gold, has intrinsic value. Value is a quality that humans attribute to something. Value is economic in nature when the importance attributed to something relates to a human desire to possess it. It is not a physical characteristic of an object, but rather a subjective appraisal by man.

Gold, like other things, is valued by man for various reasons. Gold has long been valued for purposes of ornamentation, for use as jewelry, for industrial purposes including dentistry, and as a means for hoarding wealth. The physical characteristics of gold, its virtual indestructibility, coupled with its limited supply, caused it to acquire a position of preeminence as the ideal money material, superseding other materials for this purpose, such as silver, tobacco, and paper.

The many uses of gold, including its use as reserve money, give it value, not only in terms of U.S. dollars, but in terms of everything else. When gold came to be the monetary standard of most countries in the 19th century, its value increased. If nations were to cease using gold as reserve money, its value would decrease. If each nation sought to accumulate gold without regard to the requirements of other nations, its value would rise. Like everything else, the value of gold depends upon the desire for it, on the one hand, and its physical scarcity on the other. There is nothing more mysterious about the value of gold than about the value of anything else.

2. *Relationship between the value of money and the value of the material of which it is made.*—A central question regarding national and international monetary systems is the degree to which the value of money should be related to the value of the material of which it is made. At one extreme is gold, and at the other extreme is paper. Historical experiences of many nations with paper money, the supply

of which is determined by man-made decisions alone, have not been happy ones. This is why many students of monetary affairs hesitate to break the few remaining ties between money and gold.

As long as a country is on a free gold standard, in the sense that its currency is freely convertible into gold at a fixed ratio, and gold is freely convertible into its currency at the same ratio, the value of its currency cannot differ from the value of gold. No country has been on the free gold standard since the United States abandoned that standard in the early 1930's.

Once a country abandons the free gold standard its currency becomes "managed," and its money supply comes to depend upon decisions of its governmental and banking authorities. In most of the famous inflationary experiences of history the supply of money was limited only by the speed with which the printing presses could be operated. In more recent years the supply of money has become practically synonymous with the supply of bank credit which, in turn, is determined by central banking and governmental policies with respect to central bank interest rates and open market operations and the requirements of government financing.

The temptation to expand the supply of money is great, particularly when economic recession and unemployment threaten. Because, throughout history, this temptation so often has led to runaway inflation, conservative students of monetary history and policy are not sanguine as to mankind's capacity to regulate the supply of money unless there are some built-in safeguards against overissue. For quite a while the use of gold in the form of the free gold standard performed this function reasonably well.

3. *Importance of confidence.*—The value of paper money that is not convertible into gold depends entirely upon its power to command goods and services in exchange. It continues to be acceptable as a medium of exchange only as long as there is general confidence in its ability to do so. Without public confidence paper money is worth no more than the paper upon which it is printed. Unlike gold and other precious metals, there is no minimum value of the money material itself below which the value of the money cannot fall. This is why, by definition, paper money is known as credit money (Latin: *credo, credere*, meaning "to believe," or "to have faith").

Loss of confidence in the ability of an inconvertible currency to perform the purchasing power function causes it to lose value. Its loss of value, in turn, brings about a still greater loss of confidence, a process that can continue until the currency loses all value. At present, international confidence in the dollar depends, in part, upon the ability and willingness of the U.S. Treasury to exchange gold for all dollars presented to it at 0.89 gram per dollar (1 ounce of gold for \$35). It might be that international confidence in the dollar would be maintained even if the United States were to cease redeeming dollars in gold. It can be generalized, however, that gold is more acceptable throughout the world than paper currency because of deep-seated historical and psychological attitudes regarding it. The advantage to the United States would seem to lie in continuing to pay gold for dollars, upon demand.

II. INTERNATIONAL BALANCE UNDER THE FREE GOLD STANDARD

Prior to World War I, when the leading countries of the world were still on the free gold standard, the international financial balancing mechanism was largely automatic. Currencies were readily convertible into gold at fixed parities of exchange, and gold moved freely from country to country.

Freely moving prices within countries, together with the free international movement of gold, provided the world with a multilateral payments systems which worked so well that, by the close of the 19th century, it was looked upon as "natural" and "permanent." This almost-automatic system came to prevail largely because of the United Kingdom's position in the world economy. The ready convertibility of the pound sterling into other currencies and into gold, and the strong international creditor position of the United Kingdom, made it convenient for traders everywhere to carry on international trade in pounds sterling. Convertibility meant that the British pound could be exchanged for gold at a fixed ratio at the will of the holder, regardless of his nationality. The fact that the United Kingdom maintained convertibility made it easier for other countries to do so also.

GOLD PARITIES AND PRICE LEVELS

Under the free gold standard currencies were legally defined in terms of their gold weights. The U.S. dollar was 23.22 grains of pure gold and the British pound sterling was 113.0016 grains. The ratio of the weights of the two currencies (\$4.866+ to £1) was known as the par of exchange. Individuals anywhere could convert gold into currency, or currency into gold, at the legal ratio or convert either currency into the other at the current exchange rate. Gold was the standard of value, both domestically and internationally, and also provided a mechanism for keeping currencies in line with each other at approximately their gold parities. In consequence, gold was distributed throughout the world according to need, as determined by changing prices and foreign exchange rates.

If commodity prices in the United States, for example, increased relative to prices in the United Kingdom there would be a tendency for U.S. imports from the United Kingdom to increase, and for U.S. exports to the United Kingdom to decrease. This increase of imports, relative to exports, would cause the dollar to weaken, in terms of pounds sterling. The decline could not go beyond the "gold export point," however, which was the level at which it becomes profitable to convert dollars into gold and to ship the gold to the United Kingdom.

Since the supply of money and credit in both countries was directly dependent upon gold reserves, the exportation of gold from the United States to the United Kingdom had the effect of curtailing credit in the United States, and of permitting it to expand in the United Kingdom. As a result, prices in the United States would fall, while prices in the United Kingdom would rise. As prices in the United States ceased rising, and started to decline, there would be a tendency for merchandise imports from the United Kingdom to decline, and for U.S. exports to the United Kingdom to increase.

Before long, price levels in the two countries would come into balance with each other and there would be international financial

equilibrium, with the two currencies exchanging for each other at a point close to parity.

Usually, long before the gold export point was reached, the decline in the value of the U.S. dollar, in terms of other currencies, in the foreign exchange market would attract short-term capital, which would tend to bring the international payments and receipts into balance. The system worked well largely because the British Government and the Bank of England pursued liberal trade and monetary policies and served as world banker.

As long as countries operated under free gold standard conditions they were not conscious of any balances, or deficits, in their international receipts and payments because money inflows and money outflows never were far out of line with each other. Movements of capital and gold provided the automatic correctives which distributed gold among nations.

Essential to the functioning of this system was willingness of countries to allow their economies to adjust to each other. Fluctuations in exchange rates, although relatively narrow, were sufficiently sensitive to cause international capital and gold transfers. The inflation or deflation that resulted from international gold movements usually was gradual and mild. Difficulties appeared, however, when countries that had departed from the free gold standard, and experienced marked inflation, tried to return to the gold standard at previous parities of exchange. The United Kingdom tried to do this shortly after World War I with disastrous consequences. Once functioning, the free gold standard leads to economic stability, provided that the principal countries of the world do not try to insulate their economies against outside influences.

ILLUSTRATION OF INTERNATIONAL FINANCIAL ADJUSTMENT UNDER THE FREE GOLD STANDARD

The steps in the process of adjustment under the exchange rate mechanism of the free gold standard may be summarized as follows:

1. An excess of U.S. commodity imports over commodity exports causes dollars to become more plentiful in terms of British pounds sterling, so that dollar exchange drops from $\$4.866 = \text{£}1$ (parity) to, let us say, $\$4.87 = \text{£}1$.

2. In consequence, $\text{£}1$ will now purchase more dollars than previously and it becomes profitable to convert pounds into dollars for short-term investment in the United States.

3. The ensuing flow of short-term capital into the United States will increase the supply of short-term capital relative to the demand for it and cause the short-term interest rate to fall, thus tending to neutralize the effect of the decline in the exchange rate.

4. Meanwhile, since the dollar is now cheaper in terms of pounds sterling it becomes more profitable than before for foreigners to buy merchandise in the United States. Hence, U.S. exports will increase relative to imports, thereby tending to correct the excess of imports over exports. The effect will be to raise the value of the dollar in terms of pounds and tend to bring it back to parity.

Observe that these correctives (capital movements and merchandise trade) were brought about by fluctuations in foreign exchange rates

without any manipulation of interest rates and without any shipments of gold.

5. If the adjustment mechanism just described fails to work promptly the value of the dollar in terms of pounds sterling will continue to fall until it reaches $\$4.886 = \pounds 1$. This is the "gold export point." Since it costs—or used to cost—approximately 2 cents to ship 1 pound sterling in gold from New York to London it will be more profitable to ship gold than to pay more than $\$4.886$ for $\pounds 1$ in foreign exchange.

6. The movement of gold from New York to London decreases U.S. monetary reserves and increases those of the United Kingdom thus serving to contract credit in the United States while expanding it in the United Kingdom.

7. In consequence, commodity prices in the United States will tend to fall relative to prices in the United Kingdom, thereby making the United States a better market in which to buy and the United Kingdom a better market in which to sell. U.S. exports, therefore, will be stimulated while imports will be retarded.

8. Generalizing the illustration, changes in exchange rates, by inducing short-term capital movements, by making it profitable to ship gold, and by changing the relationship of exports to imports served to distribute the world's gold among the nations in accordance with their needs and to prevent prices in all countries from getting out of line with each other. This is what economists mean when they refer to the "automatic equilibrium under the free gold standard."

III. INTERNATIONAL BALANCE UNDER CONDITIONS OF INCONVERTIBILITY

Two World Wars and a major economic depression shattered this world payments system. Currencies are no longer based on the free gold standard, but are "managed," in that the quantity of money and credit in circulation is determined by the fiscal and monetary policies of governments and central banks. The nexus between commodity price levels and gold has been broken. Monetary gold is now used only to settle international balances as a matter of government policy. In practice, the U.S. Government buys gold at the fixed price of $\$35$ an ounce and sells it at the same price to foreigners, on demand. The U.S. dollar is not freely convertible into gold domestically, and the United States is no longer on a free gold standard.

Now that the automatic correctives of the gold standard are no longer operative, countries watch their international payments with a keen eye so as to be in a position to intervene whenever weakness develops, meaning by "weakness" a tendency for outward payments to exceed receipts from abroad.

A country's balance of international payments is a barometer of its economy vis-a-vis the outside world. Adjustments that used to be prompt, and usually near painless, under the free gold standard now require considerable effort, time, and strain. Strong pressures develop, therefore, to prevent them from occurring. As soon as there are unfavorable developments in a country's balance of international payments, efforts are made to "correct" them, usually by preventing adjustment.

In foreign exchange rates were allowed to fluctuate freely and widely there would be a persistent tendency for price levels to adjust

to each other through changes in imports and exports of goods and services. Thus, if prices in the United States should rise to higher levels than in the United Kingdom, imports into the United States from the United Kingdom would increase, thereby causing the value of the dollar to fall in terms of pounds sterling. As the dollar falls in value, relative to other currencies, it becomes profitable for foreigners to convert their money into dollars and to use them to buy certain goods in the United States, which would tend to correct the rising prices. This reasoning, known as the purchasing power parity theory, because it emphasizes the attainment of international equilibrium through international price adjustments, rather than through gold movements, probably would work if countries were willing to allow their economies to adjust to each other.

However, since adjustments sometimes cause deflation by forcing certain wages down, governments resist. The home currency is not allowed to fall on foreign exchange markets, and steps are taken to introduce exchange controls, export subsidies, quotas limiting imports, and other devices designed to prevent adjustment. In the absence of a free international gold standard, wide variations in uncontrolled foreign exchange rates would make international commercial transactions hazardous and would be a serious deterrent to international trade.

Notwithstanding worldwide abandonment of the free gold standard and freely fluctuating foreign exchange rates, there are still deep-seated pressures for economic forces to adjust internationally. What has been eliminated is the sensitive mechanism of the gold standard, which made it possible for national competitive economies to adjust to each other quickly and with a minimum of friction. Although gold is still used to settle international balances, it no longer brings the purchasing power of national currencies into line with each other in any sensitive way. Prices, wages, and other economic variables can now be out of line with each other, internationally, for a long time.

The automatic correctives of the old payments systems served to insulate the basic factors of production (principally labor) against sudden shocks from abroad. With the automatic correctives no longer operative, the factors of production become more sensitive internationally, unless governments intervene to prevent outside influences from being felt through such devices as the curbing of imports.

It is conceivable that the leading countries of the free world could agree upon an international monetary system that would approach the automaticity of the free gold standard. There was hope, as World War II drew to a close, that the United Nations would be able to establish an international currency and a world reserve bank. The most that could be agreed upon, however, was establishment of an International Monetary Fund which, though constituting an important step toward international monetary stabilization, is not an adequate substitute for the free gold standard.

Under the free gold standard, international gold movements were residual and passive, in that gold was shipped abroad to reestablish international equilibrium whenever other economic variables, such as exchange rates, merchandise trade, services, and capital movements failed to balance. Although gold is still used to settle international balances, it no longer moves automatically as a corrective. At the

present time, gold can be more than a residual item in the balance of international payments. Independent movements of gold, such as those caused in 1960 by speculation against the dollar in the free gold market in London, can be the symptom of a cause, as well as a direct result, of a deficit in the balance of international payments.

IV. RECENT CHANGES IN THE U.S. BALANCE OF INTERNATIONAL PAYMENTS

Between 1951 and 1956 the United States incurred an overall deficit in its balance of international payments, each year, of between \$0.3 and \$2.1 billion. The excess of international payments over receipts took the form of additions to dollar balances in U.S. banks to the credit of foreign banks and foreign nationals and aroused little concern in the United States.

In 1957, because of the Suez crisis, the deficit was transformed into a surplus of \$0.4 billion. But in 1958 the United States suddenly exported \$2.3 billion of gold, and immediately the balance-of-payments deficit problem loomed large in the eyes of many Americans. The principal European currencies became externally convertible at the end of 1958, since which time short-term capital outflows have been of more than usual significance. In 1959 gold exports receded to \$0.7 billion, but again reached a high level of \$1.7 billion in 1960. In 1961 the gold loss again declined to \$0.7 billion, but during the first half of 1962 was at an annual rate of \$2 billion.

The stock of U.S. monetary gold now amounts to almost \$17 billion, which is about one-third below the 1949 peak of \$24.8 billion, when the United States held approximately 70 percent of the free world's total monetary gold. Its present stock accounts for over 40 percent of the free world's total gold supply and to over 150 percent of the \$10.5 billion short-term dollar assets of foreign central banks (as of March 1962). Thus, notwithstanding the steady loss of gold during the past few years, the stock of U.S. monetary gold is still large, considered in historical perspective and in relation to U.S. short-term liabilities to foreigners.

An outstanding characteristic of the U.S. balance of international payments during the past few years has been the phenomenal increase in short-term capital outflows. If these outflows are excluded from the balance of international payments, the overall deficits in 1960 and 1961 are reduced from \$3.9 to \$2.5 billion, respectively, to \$1.8 and \$0.6 billion. In other words, about one-half of the large balance of payments deficit in 1960, and about three-fourths of the somewhat smaller deficit in 1961, are accounted for by short-term capital outflows. Stated differently, if it had not been for the large increases in short-term capital outflows, the international accounts of the United States would have been practically in balance.

The overall balance of payments deficit of the United States between 1951 and 1962, together with short-term capital outflows and gold movements, are shown in the accompanying table.

During the first half of 1962 the overall deficit declined to an annual rate of \$1.2 billion. Recorded outward short-term capital movements declined to \$0.8 billion (annual rate), but gold exports were running at an annual rate of \$2 billion.

U.S. balance of international payments: The overall deficit, short-term capital movements, and gold movements, 1951-61

[In billions]

Year	Overall deficit ¹	Private short-term capital movement	Gold movement (+ equals outward flow)	Year	Overall deficit ¹	Private short-term capital movement	Gold movement (+ equals outward flow)
1951.....	-\$0.3	-\$0.1	-\$0.1	1957.....	+\$0.4	-\$0.3	-\$0.8
1952.....	-1.1	-1	-4	1958.....	-3.4	-3	+2.3
1953.....	-2.1	+2	+1.2	1959.....	-3.8	-1	+7
1964.....	-1.5	-6	+3	1960.....	-3.9	² -2.1	+1.7
1955.....	-1.1	-2	+04	1961.....	-2.5	² -1.9	+7
1956.....	-1.0	-5	-3	1962 ³	³ -1.2	³ -8	³ +2.0

¹ Sometimes called the conventional balance, to distinguish it from the basic balance (which excludes private short-term capital movements).

² Including approximately \$600,000,000 in 1960 and \$600,000,000 in 1961, shown officially as "errors and omissions." The official assumption has been that large negative errors and omission figures reflect unrecorded short-term capital outflows.

³ Annual rates based on figures for 1st half of the year.

SPECULATION IN GOLD

Recent deficits of international dollar payments over dollar receipts have taken the form of increasing balances to the credit of foreign banks or nationals in U.S. banks. An outstanding fact is that although sales of gold to foreigners have increased, there has been no net decline in foreign-held dollar balances. If there had been an appreciable loss of confidence in the U.S. dollar, the foreign-held dollar balances would have decreased as foreigners deserted dollars in favor of gold.

Maintenance of confidence in the U.S. dollar is vital because the dollar has become the world's reserve currency. Confidence depends upon both its convertibility into gold and the stability of its purchasing power. At present the dollar is convertible into gold—in practice, though not required by law—for the settlement of international balances at the fixed price of \$35 per ounce. If the price of gold were to be raised, that is, if the dollar were to be "devalued" with respect to gold, or if there were what appeared to be well-founded rumors to that effect, there could be a stampede to convert dollars into gold. Heavy speculation in gold on the free gold market in London during the latter half of 1960 ran the price of gold to a temporary high of \$41 per ounce.

It seems highly probable that an important reason for the substantial withdrawal of gold during the latter half of 1960 was the purchase of gold from the U.S. Treasury by the Bank of England to replenish the gold that it had been paying to those who were exchanging dollars and other currencies for gold for speculative purposes. The assurance that the United States stands ready to buy gold at the fixed price of \$35 per ounce encourages speculation in gold. A person having, or obtaining, gold abroad who believes that the United States will devalue the dollar has only to sell dollars short and to sell his gold to the U.S. Treasury after devaluation occurs, thereby reaping large dollar profits. The cost and risk of the transaction are small since the speculator can lose no more than the cost of the transaction itself. If the United States does not devalue the dollar the speculator can always present his gold to the U.S. Treasury and receive dollars for it at the fixed price of \$35 per ounce.

If the United States, while continuing to redeem foreign-held dollars in gold at \$35 per ounce, were to terminate the implicit guarantee to purchase gold for dollars at that price, speculators would have to take a chance of loss since they would no longer be assured of the minimum price of \$35 per ounce. Such action by the United States would discourage speculation in gold and should stimulate the return of substantial quantities of gold to the United States.

Stated succinctly, the United States would give assurance that, although it intends to support the dollar in terms of gold, it has no intention of continuing to support the world gold market in terms of dollars. The United States, of course, would purchase gold at the world market price whenever it deemed it necessary to do so to replenish its gold reserves.

The conversion of foreign-held dollar balances into gold, whether by foreign central banks for the purpose of replenishing their gold reserves, or by foreign nationals in anticipation of a rise in the dollar price of gold, has no effect upon the U.S. balance-of-payments deficit. In such cases the loss of gold is balanced by an equal decrease in foreign dollar balances.

It is when short-term capital leaves the United States for the purpose of buying gold that the effect is to increase outward payments, thereby aggravating the balance-of-payments deficit. When these dollars (short-term capital) are used to purchase gold abroad to be hoarded in anticipation of dollar devaluation, the effect is to withdraw gold from the free gold market (in London or Switzerland). To the extent that the gold purchased is not newly mined gold, but is supplied by the gold market, it ultimately comes from the Bank of England's reserve. The Bank of England, in turn, replenishes its reserves by converting some of its dollar balances into gold at the U.S. Treasury.

Thus, the loss of gold which was made possible by the outflow of short-term capital is a cause, rather than a result, of an increase in the U.S. balance-of-payments deficit.

WHAT IS SHORT-TERM CAPITAL?

Short-term capital transactions are a more or less miscellaneous category in which are placed, for the purpose of constructing a balance-of-payments statement, all dollar outflows that cannot otherwise be accounted for. Short-term capital is sometimes thought of as "a stock of footloose money hopping from country to country only because relative interest rates vary, or in search of gains from exchange rate speculation."¹

The concept of short-term capital is vague. The definition that is followed for balance-of-payments purposes was determined primarily by the need for a criterion that is statistically manageable. Short-term capital, thus defined, is "capital which is held in the form of assets (including bank deposits) with an original maturity of not more than 1 year." A number of transactions that are classified as short term are more in the nature of long-term transactions because

¹ Cf.: Monthly Review, Federal Reserve Bank of New York, July 1962, article entitled "Short-Term Capital Movements and the U.S. Balance of Payments," p. 94. According to this article, "short-term capital transactions are among the least understood items in our balance-of-payments accounts."

they are regularly renewed at maturity. Similarly, some of the capital flows between parent companies and their subsidiaries may, in fact, represent only short-term financing, although in existing statistics they would be shown as direct investment.

Confusion arises from failure to distinguish between capital and dollars. Capital is a financial concept, whereas the dollar is a monetary concept. Private short-term capital movements that arise from import needs are true capital movements. They represent an investment of funds for the purpose of acquiring gain in the form of income on principal. Similarly, if short-term funds move from one country to another because of international differences between interest rates, there has been a movement of capital. In both cases, dollars (or other funds) are used, as principal to obtain a right (or power) to receive future income.

In all probability, as indicated above, a large number of dollars moved from the United States to other countries in 1960 and 1961, not for the purpose of securing a right to receive future income on those funds as principal, but rather in anticipation of a change in the value ratio between the money unit itself and gold. Dollars that move in response to this motive do not represent an investment of capital, and are not financial transactions. They represent rather, money manipulation, or speculation against the dollar, itself, with respect to its gold value.

Although investment, on the one hand, and manipulation on the other, are not separated by a clear line of demarcation, it is clear that the transfer of dollars from the United States in anticipation of an increase in the dollar price of gold is the realm of monetary speculation, rather than in the realm of investment. Dollars that move in response to this motive should not be included in the category of short-term capital, but should constitute a separate category. Unfortunately, there is no way of ascertaining how many dollars move in response to the motive of monetary speculation.

Unlike ordinary international transfers of short-term capital, where differences between rates of interest here and abroad are casual, the outward flow of dollars for the purpose of speculating in gold is influenced little, if at all, by interest rates. For, if it is anticipated that the dollar price of gold will be doubled, from \$35 to \$70 per ounce, the interest charges incurred by holding gold are insignificant compared with the large speculative gains to be made.

V. THE MECHANICS OF "ONE-WAY" SPECULATION

Some persons find it difficult to think of a ratio from the point of view of both elements comprising it, simultaneously. Thus, the ratio 2:3 can be thought of either as 2 being two-thirds as large as 3, or as 3 being $1\frac{1}{2}$ times 2. In the same manner, some persons find it difficult to distinguish between the price of gold in terms of dollars, and the price of dollars in terms of gold.

At the present time the U.S. Treasury supports dollars in terms of gold, and gold in terms of dollars, at the fixed ratio of 0.89 gram one-thirty-fifth of 1 ounce of gold per dollar. Or, as more commonly stated, it buys and sells gold at the fixed price of \$35 per ounce. It does it by paying 0.89 gram of gold for every dollar presented to it by

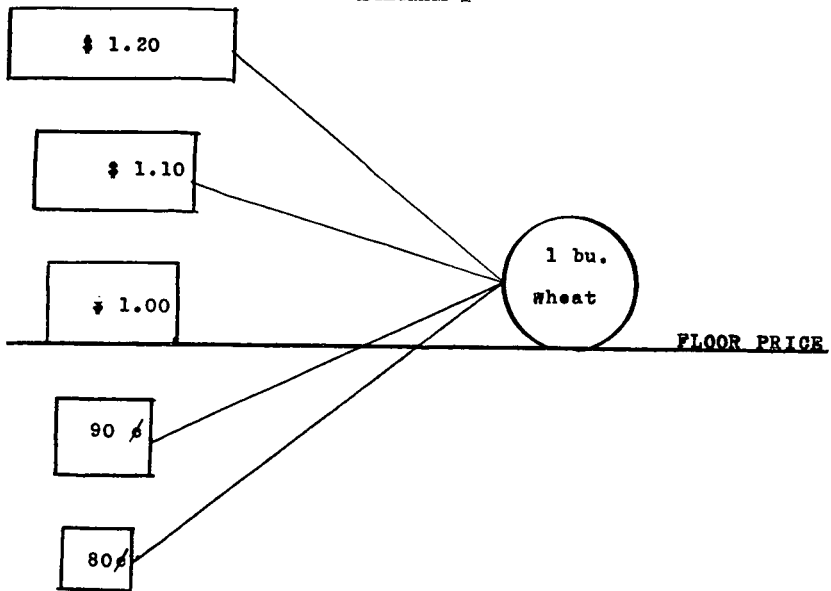
foreigners, and by buying all gold presented to it by foreigners at \$35 per ounce.

SPECULATION IN WHEAT

The accompanying diagrams might help clarify thinking on the subject. But, instead of delving directly into the relationship between dollars and gold, let us first consider the relationship between dollars and some commodity other than gold, say wheat.

Assume that the U.S. Government is supporting the world price of wheat at \$1 per bushel, by selling it to foreigners, and buying it from them freely at that price. Assume, further, that rumors spread to the effect that the United States is about to increase the price of wheat.

DIAGRAM 1



Speculators will waste no time in buying all the wheat that they can lay their hands on at \$1 per bushel in anticipation of the price rise, withdrawing dollars from bank accounts, and borrowing on wheat as collateral, so as to buy more wheat for future delivery. As long as they know that the United States will continue to buy all wheat presented to it at \$1 per bushel, they can lose nothing more than the interest charges of borrowing the dollars to buy the wheat futures. For, if the U.S. Government does not raise the price of wheat to something higher than \$1 per bushel, or if the world price should fall to less than \$1 per bushel, they can always sell their wheat to the U.S. Government at \$1 per bushel.

This kind of speculation is highly profitable. The speculators can make a financial killing if the Government raises the price of wheat, but will lose practically nothing if the Government does not raise the price, or if the world price should fall. This might be called one-way speculation. Under the circumstances, the speculators will exert every effort, through propaganda and political pressure, to induce the Government to raise the price of wheat.

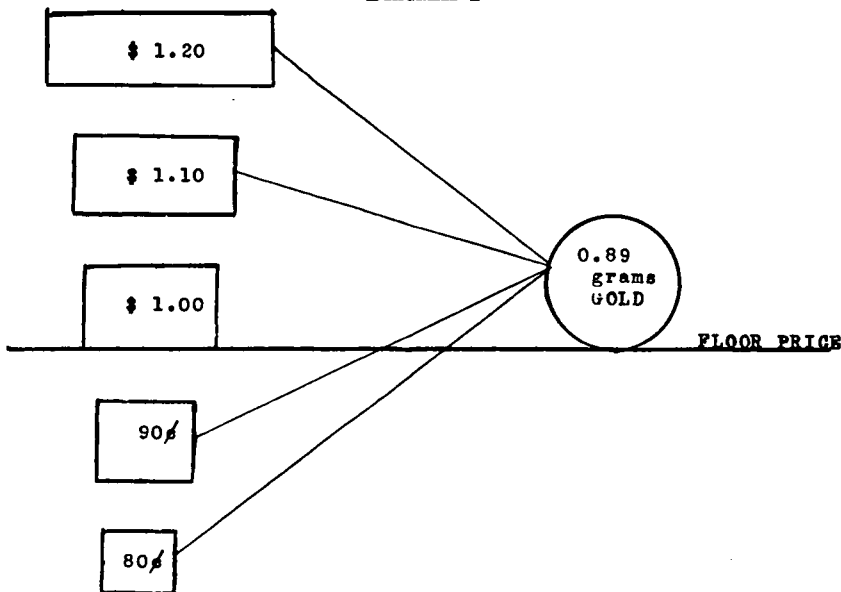
To reduce the profitability of such speculation, all that the Government has to do is to announce that it no longer will guarantee to buy all the wheat presented to it at the predetermined price of \$1 per bushel. Once the guaranteed floor price is removed, speculation becomes a two-way street. The speculators can then lose, as well as gain, because the future price of wheat is indeterminate. Speculation then assumes its normal, proper role in the economy, which is to absorb the risks of price fluctuations. Two-way speculation performs a useful function; one-way speculation does not.

GOLD SPECULATION

Gold is a commodity, and the same reasoning applies to it that applies to wheat. The U.S. Treasury (not by statute, but by administrative practice) supports its price at \$1 per 0.89 gram. Substitute gold for wheat in the diagram, and the same reasoning applies.

As rumors spread that the U.S. Treasury is about to double the price of gold, speculators waste no time in buying all the gold that they can lay their hands on at \$1 per 0.89 grams in anticipation of the dollar devaluation, withdrawing dollars from bank accounts and borrowing on gold as collateral, so as to buy more gold for future delivery. As long as they know that the U.S. Treasury will continue to buy all gold presented to it (by foreigners) at \$1 per 0.89 grams, they can lose nothing more than the interest and premium charges involved in borrowing dollars to buy the gold futures. For, if the U.S. Treasury does not raise the price of gold to something higher than \$1 per 0.89 grams, or if the world price of gold should fall to less than \$1 per 0.89 grams, they can always sell their gold to the U.S. Treasury at \$1 per 0.89 grams.

DIAGRAM 2



This kind of speculation is also highly profitable. The speculators will make a financial killing if the Government raises the price of gold, but will lose very little if the price of gold is not raised, or if it should decline. This, too, is one-way speculation, and the speculators will exert every effort to induce the U.S. Treasury to raise the price of gold.

The U.S. Treasury could reduce the profitability of such speculation by announcing that it no longer will guarantee to buy all gold presented to it by foreigners at the predetermined price of \$1 per 0.89 grams (or any other predetermined price). Once the implicitly guaranteed floor price is removed, speculation in gold will become a two-way street. The speculators can then lose, as well as gain, because the future price of gold is indeterminate. The fact that since January 1961, it has been illegal (by Presidential order) for Americans to hold gold abroad hardly deters the unscrupulous from engaging in the practice.

Nothing herein is intended to suggest that the U.S. Treasury should cease paying gold for all dollars presented to it by foreign holders at the fixed price of 0.89 grams per dollar. U.S. dollars are instruments of credit and ultimately are backed by the real wealth and productivity of the U.S. economy. The requirement that they be redeemed in gold serves the useful purpose of limiting their volume, thus restraining the temptation to over-issue.

The President of the United States has made it clear, upon numerous occasions, that the United States has no intention of raising the dollar price of gold. But, by silence, he has implied that it also has no intention of allowing the dollar price of gold to drop below \$35 per ounce.

THE SWISS GOLD MARKET

There are free gold markets in London and Switzerland, where gold and gold for future delivery can be bought and sold freely. Contracts for future delivery can be bought in London or Zurich and can be purchased by anyone paying for them in hard currency, including U.S. dollars. Because the Swiss market offers complete facilities for the acquisition of bar gold and gold coins, it is probable that more of the speculation in gold has been carried on there than in London. Although it is illegal, under U.S. law, for Americans to buy gold abroad, there is nothing in Swiss law to limit such transactions. Anyone, whether a Swiss resident or a foreigner, can buy, sell, and import gold, or store it, without formality. Furthermore, Swiss banks observe secrecy, which prevents them from divulging information about any transaction. The identity of the owner under the system of "numbered accounts" is known only to one or two persons within the bank, so that shrewd investors from all over the world can own such accounts. According to a well-known expert on the subject,² gold bars and gold coins can be acquired as easily as groceries in a supermarket. No questions are asked and any hard currency is acceptable in payment.

No official statistics are available to indicate the actual volume of gold bought and sold in the Swiss gold market, but it has been estimated that at least \$3 million worth has been traded in per working

² Pick, Franz, "Gold: How and Where To Buy and Hold It." Pick Publishing Corp., New York City, 1961.

day. It has also been estimated³ that during the hectic days of October 1960, when the world price of gold was soaring to over \$40 per ounce, more than 50 percent of the buying orders were of U.S. origin.

A TYPICAL TRANSACTION

On December 30, 1960, a speculator, wanting to buy gold for delivery in London or Switzerland at the end of June 1961, would have had to pay \$36.54 per ounce (the price of gold which was \$35.65 per ounce, plus a premium of 2½ percent).

By purchasing 1 bar of gold (400 ounces) outright, he could use it as collateral for a bank loan to buy 10 additional bars for future (6 months) delivery. If, during that period, the price of gold should be increased to \$70 per ounce, the speculator would make a profit of over \$147,000 on an original investment of less than \$15,000. The mechanics of the transaction are as follows:

On Dec. 30, 1960: Buys 1 bar of gold (400 ozs.), at \$35.65 per oz-----	-\$14,260
On Dec. 30, 1960: On the basis of the 1 bar of gold, as collateral for a loan, buys additional 10 bars for future delivery (6 months) at a premium of 2½ percent. Two and one-half percent of 4,000 ounces at \$35.65 per ounce. Uses the original bar as collateral to borrow from bank at 6 percent interest. (6 percent on \$3,565 for 6 months)-----	-107
Total outlay-----	-14,367
On June 30, 1961: Sells 4,400 ounces gold at \$70 per ounce-----	+308,000
Less original outlay-----	-14,367
	+293,633
Buys (under the futures contract) 4,000 ounces gold at \$35.65 per ounce-----	-142,600
Difference-----	+151,033
Repays bank loan-----	-3,565
Net gain-----	+147,468

If the price of gold does not rise, or even if it should fall, the most that the speculator could lose would be \$6,532, which is the total of the 2½ percent premium cost of the futures contract (\$3,565), the difference between the buying price of gold under the futures contract (\$35.65) and the selling price to the U.S. Treasury (\$35) on 4,400 ounces (\$2,860), and the small interest charge on his bank loan (\$107).

This is what is meant by one-way speculation. The speculator can make a large profit on a small investment, but because the United States will buy all gold at the predetermined price of \$35 per ounce, he can lose very little. Small wonder that a rumor to the effect that the United States is about to raise the price of gold can start a speculative stampede on the free gold market.

VI. PROBABLE EFFECTS OF ABANDONMENT OF THE GOLD PRICE GUARANTEE

Some have misinterpreted the proposal that the United States abandon the assurance that it will buy all gold offered to it at the predetermined price of \$35 per ounce to mean that the United States

³ Op. cit., p. 37.

would no longer buy any gold. The proposal does not imply this. The United States is a sovereign nation and will continue to buy gold, or any other commodity that it wants, at the world market price. Gold, as a commodity, will command a world price whether the United States guarantees it, or not. Whether, under the circumstances, the price would be higher, or lower, than \$35 per ounce is indeterminate.

Action of this kind by the United States would amount to the demonetization of gold. It has been asserted that if the United States were to do this: (a) the value of gold would decline precipitously and, at the opposite extreme, (b) the value of gold would rise because there would be a scramble for gold in anticipation of eventual remonetization. Although it is conceivable that either of these diametrically opposed predictions could come to pass, it seems unlikely. It is more probable that, after a few temporary price flurries—both downward and upward—the price of gold would settle back to somewhere in the vicinity of \$35 per ounce. It is unlikely that many persons would hold gold once the United States had decided to tear loose from it. Some other country, of course, could remonetize it, but it is not probable that it would do so without the cooperation of the United States.

Finally, one might ask what difference it would make if gold did cease to be the standard of international payments. Gold is no longer the monetary standard within the United States, even though it continues to serve as nominal backing of U.S. currency. It is not real economic backing, however, because holders of currency cannot obtain gold for it. The most that the gold does is to act as a restraint against overissue.

If the international gold standard (or whatever one chooses to call the present system) collapses it would be necessary to evolve a new system of payments. In fact, gold is a relative newcomer on the world's monetary stage. In ancient times silver was the standard, and it was not until the 19th century that gold attained a preeminent position. Abandonment of gold as an international standard would soon result in the adoption of some other standard. It might even hasten the adoption of rational liquidity arrangements, such as those recently proposed by Under Secretary of the Treasury Roosa, under which various currencies would be held and used to settle international balances.

However, countries will not be willing to keep the bulk of their reserves in one another's currencies as long as the price of gold can go up, but not down. Such a plan would be more likely to succeed if the floor price supporting gold were removed, for unless there are safeguards against the flight of currencies (U.S. dollars and the currencies of other countries as well) into gold, there is not much likelihood that the monetary authorities of many countries will be willing to hold their reserves in each other's currencies.

VII. GOLD SPECULATION AND THE BALANCE-OF-PAYMENTS DEFICIT

It should be noted, again, that a deficit in the balance of payments does not necessarily result in an equivalent withdrawal of gold in the same period of time during which the deficit was incurred. Throughout the period 1951-57 foreign banks and foreign nationals were build-

ing up their dollar balances in U.S. banks in preference to withdrawing gold or buying U.S. exports.

These dollar balances have become very large and they are subject to conversion into gold at any time, as long as the United States continues to redeem dollars in gold (for foreigners, though not for Americans). The extent to which, and the rapidity with which, foreign central banks convert their dollar balances into gold depends, not only upon their own monetary requirements, but also upon an awareness that if they withdraw too much gold, too quickly, it will have a bad effect upon international confidence in the dollar. For this reason, the Bank of England and other central banks are cautious about how much of their dollar balances they convert into gold. It is in their own self-interest that the dollars to which they have a claim be "as good as gold."

A current deficit in the balance of international payments may, or may not, result in a corresponding gold loss, and it is not necessary that a deficit in the balance of payments be incurred before foreigners can withdraw gold. Like any other bank balance, the foreign dollar balances are redeemable in cash—in this case gold—at any time.

What is not always appreciated is the direct and close relationship between dollar-gold speculation in Europe, in anticipation of a rise in the price of gold, and the U.S. balance-of-payments deficit. Dollars that are sent from the United States to Europe for the purpose of buying gold for speculative purposes take the form of short-term capital outflows and, as such, add to the payments side of the U.S. balance of payments. They undoubtedly accounted in large part, for the balance-of-payments deficit in 1960.

The dollars that leave the United States to buy gold in Europe are added to the dollar balances of the banks supplying the gold to the open market in London or Zurich (principally the Bank of England). As dollars accumulate, the bank finds its gold reserve diminished by an equivalent amount. It therefore converts some of its dollar balances into gold to replenish its reserves, which has the effect of increasing gold exports from the United States. In this indirect manner, speculation in gold through the exportation of short-term funds from the United States causes both an increase in the U.S. balance-of-payments deficit and an increase in the exportation of gold.

Gold that is purchased for speculative purposes with some currency other than dollars, however, or with dollars that have not been withdrawn from the United States for the purpose, do not affect the U.S. balance-of-payments deficit directly because such transactions do not depend upon new outward flows of dollars. The fact that the large outflows of gold from the United States in 1960 and 1961 were accompanied by substantial increases in short-term capital outflow would seem to indicate that U.S. dollars from the United States were being used to speculate in gold.

During the first 6 months of 1962, however, the large gold outflow was not accompanied by large short-term capital outflows. In fact, the outward movement of short-term capital during the first 6 months of 1962 was about half of what it was in 1961. The presumption is that the gold that has been leaving the country in 1962 has been in response to speculation in terms of currencies other than dollars.

As long as the U.S. Treasury assures speculators that it will continue to buy gold at any predetermined price there will be a temptation for holders of dollars to speculate against the dollar whenever there are rumors to the effect that the United States is going to devalue the dollar in terms of gold. If the dollars are withdrawn from the U.S. economy the speculation will result in stepped-up outward short-term capital movements and in aggravation of the U.S. balance-of-payments deficit. Those who are prone to speculate will do so whenever they see a gambler's chance to make something on a "sure thing."



87th Congress }
2d Session }

JOINT COMMITTEE PRINT

FACTORS AFFECTING THE UNITED STATES
BALANCE OF PAYMENTS

MATERIALS PREPARED FOR THE
SUBCOMMITTEE ON INTERNATIONAL
EXCHANGE AND PAYMENTS
OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

Part 5
EMERGENCE OF AN AMERICAN BALANCE
OF PAYMENTS POLICY



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LETTERS OF TRANSMITTAL

NOVEMBER 29, 1962.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress are four papers which our Subcommittee on International Exchange and Payments feels to be of such importance in understanding evolving U.S. policies respecting international monetary arrangements as to merit reprinting in connection with its study of "Factors Affecting the United States Balance of Payments."

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

NOVEMBER 29, 1962.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith are four speeches and papers which the Subcommittee on International Exchange and Payments feels to be of such significance in explaining the emergence of recent U.S. balance-of-payments policy as to deserve reprinting and combining among the materials being assembled on the general subject of "Factors Affecting the United States Balance of Payments."

Three of the items are reprints of remarks and an article by Mr. Robert V. Roosa, Under Secretary of the Treasury for Monetary Affairs. Another item is a report prepared by Mr. Charles A. Coombs, vice president in charge of the Foreign Department of the Federal Reserve Bank of New York, reprinted from the Monthly Review of the Federal Reserve Bank of New York.

The materials are presented in advance of the subcommittee's hearings in accordance with the Joint Economic Committee practice of providing members of the committee and the participating panelists an opportunity to examine thoroughly the analyses in preparation for discussions at public hearings.

Prof. Don Humphrey of the Fletcher School of Law and Diplomacy, Tufts University, has been acting as a consultant to the subcommittee and has had staff responsibility in planning the subcommittee's study.

Sincerely,

HENRY S. REUSS,
*Chairman, Subcommittee on International Exchange and
Payments.*

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THE BEGINNING OF A NEW POLICY
BANKING AND THE BALANCE OF PAYMENTS
ASSURING THE FREE WORLD'S LIQUIDITY

By

ROBERT V. ROOSA

UNDER SECRETARY OF THE U.S. TREASURY

THE BEGINNING OF A NEW POLICY ¹

Over the past 14 months the United States has, for the first time since the later 1930's, entered into foreign exchange transactions for monetary purposes, as distinct from the more or less routine handling of foreign exchange to meet the Government's operating needs abroad. The Treasury began limited operations in March 1961, acting through the Federal Reserve Bank of New York as its fiscal agent. In February of this year the Federal Reserve System announced its decision to enter the exchange markets for its own account.

To date, U.S. action in the foreign exchange markets has been largely exploratory in character, designed to probe and possibly to limit temporary disturbances in the exchange markets. All operations have been carried out in close consultation with, and usually jointly with, the financial authorities of the other countries involved.

These activities in the foreign exchange markets have sometimes been referred to as the financial component in the outer perimeter defenses of the dollar. This is probably a good characterization, since of course the inner defenses depend upon the productivity, production, and competitiveness of the American economy. But in what we have been doing, both basically and peripherally, to defend the dollar, we have also been defending, in concert with others, the whole system of convertibility at stable exchange rates that has been so painstakingly reconstructed since the end of World War II. And the effective functioning of that system is, in turn, essential for diversified growth and integration among the free, capitalist economies of the World.

In addition to the shortrun objectives of our foreign exchange operations, on which I shall say a bit more in a moment, there are longer run implications and potentialities of an approach in which a key currency country becomes an active participant in the international exchange markets. As we go along we are also, therefore, trying to think through some of these possible implications for the long run—can such participation aid in assuring the stability of the international financial mechanism? Can it, if properly executed, reinforce the fundamental work of the International Monetary Fund? Does it afford a helpful means toward providing sufficient international liquidity for the continued growth of the world economy? Does it strengthen the role of gold as the base of our international reserve arrangements?

These are the kinds of questions that central bankers, and commercial bankers and treasuries can usefully ponder together, in our joint efforts to find the combination of private and governmental monetary facilities that a flourishing capitalism needs. While I cannot presume to suggest any of the answers, it may be of some help as background for others who can, if I discuss two themes that seem to run through our American experience of these recent months. First,

¹ Remarks of Robert V. Roosa, Under Secretary of the Treasury for Monetary Affairs, at the monetary conference of the American Bankers Association, Rome, Italy, May 17, 1962.

what has thus far been the nature of our foreign exchange operations within the framework of the system of convertibility based on fixed exchange rates? Second, what possibilities seem at this early stage to be suggested, concerning the accumulation by a key currency country of balances in the convertible currencies of other leading countries?

Other countries have long accepted direct intervention in the exchange markets as a customary way of life. At the least, they must be buyers or sellers as exchange quotations reach the acceptable limits of variation around their own fixed exchange rates. The United States, on the other hand, was and still is, the only country that maintains complete interconvertibility between gold and its own currency at a fixed price, and until recently, was content to leave all operations concerning the exchange relations between the dollar and other currencies to the officials of those other countries. The recent decision to participate in the international markets in cooperation with other financial authorities reflects, as do many other governmental and private actions, a growing awareness within the United States of the dual nature of our own balance-of-payments problem.

We must not only respect and fulfill the balance-of-payments disciplines to which other countries have been accustomed for so long; but we must do this while also keeping our own currency and gold equally and alternatively available as reserves for all other countries. We must gain and keep the initiative for influencing the factors that affect our balance of payments, but we must do so in the impeccable manner that assures and retains bankers' confidence. This means that, both as trader and as banker, the United States has to keep its markets open and free. We have, therefore, a major stake, which the Western World shares with us, in resolving our balance-of-payments problem within the framework of a free international economy, with stable exchange rates and an immutable gold price of \$35 an ounce.

Let me make it absolutely clear again that there is no thought that foreign exchange operations can provide the solution to the U.S. balance-of-payments deficit. More fundamental correctives are necessary for this end, and I know that you are all familiar with the many-sided program of American business, finance, and Government that is moving forward toward a restoration of equilibrium, and surplus, in the American balance of payments.

Our foreign-exchange operations have so far been mainly designed to help in providing a breathing space during which these basic programs could have a chance to become effective. In our judgment, they have been most helpful in deterring unwarranted speculation and unwanted capital flows, and in reducing the drain on our gold stock, which stands as the bulwark of the whole international currency system.

I should emphasize that our operations have not at any time involved an attempt to rig markets or peg prices. Within the relatively narrow band which is, in any event, permitted for exchange fluctuations under the rules of the International Monetary Fund, there must be room for market prices to demonstrate the basic strength or weakness of any currency. We could not, of course, have pegged exchange rates even if we had wanted to. In March 1961, the United States held no reserves of convertible foreign exchange—and the balance of payments was in deficit. As a result, there was no opportunity to support the dollar in the exchange market through spot sales of other currencies

in the way that European monetary authorities customarily do when their own currencies come under pressure.

Some minor limited selling operations in the spot market have been undertaken more recently to alleviate temporary pressures, using foreign exchange acquired by borrowing in Switzerland and Italy (or limited amounts acquired at times when the rate would not be adversely affected). Operations have been mainly concentrated, however, in forward exchange. These markets can at times be quite thin and even a relatively limited volume of market demand can have an excessive impact on rate, which are not subject to limitations under IMF regulations but which can generate great pressures upon the spot rates. When the forward rate, whether because of expectations concerning future currency values or for other reasons, moves conspicuously out of line with its interest parity, short-term private capital movements can be set off that may be disturbing to both the country receiving and the country losing funds. It is useful to have facilities for testing out whether the particular developments are in fact deeply rooted and sustained, or whether they are short-lived and may soon be reversed.

It was precisely this sort of situation, in fact, that provided the immediate motivation for Treasury operations, in conjunction with the Bundesbank (and actually in response to a very constructive initiative on the part of the Bundesbank), in the forward market for deutsche marks in March 1961. You will recall that the revaluation of the mark and the guilder at that time led to a state of great uncertainty in the markets and there were widespread expectations that further appreciation of these, and perhaps other, currencies would shortly be forthcoming. In these circumstances, forward rates moved to substantial premiums, the deutsche marks approaching a 4-percent-per-annum premium for a time, and incentives were created for heavy flows of funds out of the dollar and into the mark. Actually, in providing marks to the forward market, we made it possible for the recipients to continue holding their dollars, while assured of later convertibility into marks if their acquisitions did in fact prove to be sustained. Our own forward sales of marks reached a peak of about \$350 million in mid-June and aggregated considerably more as some initial contracts were rolled over once or twice more. But now, they have all been paid off, as the excessive flow of funds into Germany first subsided and then was reversed when the Berlin situation deteriorated during the late summer of 1961 and expectations of further appreciation disappeared.

Operations were also undertaken in Swiss francs beginning in May 1961 on a small scale, and accelerating in July when the Berlin crisis encouraged a stepped-up flow of funds into Switzerland. The Swiss were anxious to encourage an outward flow of short-term Swiss capital to offset inflows from other sources that were creating domestic problems of excessive bank liquidity and inflationary pressures, and the United States was glad to cooperate, since we were equally anxious to defend the dollar by lessening the pressure on the Swiss National Bank to absorb more dollars. Early this year, for roughly similar reasons, forward sales of guilders and Italian lire were made. To give you an idea of the magnitudes involved, sales of forward Swiss francs reached a maximum of something over \$150 million. Sales of Italian lire have been larger, while guilder sales have been quite modest. All in all, total forward exchange operations undertaken by the Treasury

in the four currencies that I have mentioned, including the rollover of maturing contracts in some cases, have amounted to about \$1½ billion in the 14-month period.

One of the main results of these sales of forward exchange, as is obvious from what I have said so far, has been to encourage foreign private investors to stay invested in dollars (or to increase their holdings) and thus restrain the piling up of dollars in central banks abroad.

As long as the United States continues to run a sizable deficit in its balance of payments it is unlikely that we can or should expect that some part of the dollars pumped into the international financial stream will not reach central bank hands. Nor should we expect to avoid some resulting drain on our gold stock. And the disciplines which such movements imply are fundamental and clear.

At the same time we must be constantly mindful that the dollar is not just another currency, but that it is a key reserve currency—not only for foreign monetary authorities but also for foreign private banks and corporations. We must remember that foreign monetary authorities adjust their own balance-of-payments position day by day and week by week by the purchase and sale of dollars in the exchange market. Irrespective of our balance-of-payments position the shift of dollars from countries with traditionally low gold ratios to countries with high ratios can result in a gold drain for the United States. Similarly, with 8½ billion of liquid dollar holdings in the hands of private foreigners, we must make sure that speculative forces are not fed by uncertainty about either the ability or the determination of the United States to stand firmly behind the interconvertibility of the dollar with gold at the fixed price of \$35 per fine ounce.

A clear distinction has to be drawn—and it is not always easy to convey this readily—between the absolute and unconditional availability of gold to foreign monetary authorities for legitimate monetary purposes and the compulsion on us—in cooperation with foreign monetary authorities—to avoid any unnecessary dispersions of the U.S. gold reserve, on which our existing international system, in the last analysis, depends. The United States would, in fact, be just as derelict in its duty to help support and sustain a growing and viable international economy if it failed to defend the gold stock through improved techniques of monetary cooperation as it would be if it failed to make gold available to foreign monetary authorities on demand.

A solution of the balance-of-payments deficit is fundamental if we are to ward off a steady attrition of the U.S. gold stock. But, the problem goes even beyond this. The United States is a ready seller of gold on demand, but other countries are not necessarily sellers to us when they have exchange deficits, partly indeed because their own gold reserve is cushioned—in many cases substantially—by dollar reserves.

It is consequently a matter of first priority for us to develop methods that will minimize our gold losses whenever our balance of payments swings into deficit—by no means avoid them, but certainly avoid conditions that exaggerate them. Under present procedures, we cannot be sure that gold will return to us when we move into surplus—and we must and will have surpluses from time to time.

This kind of consideration leads directly into my second main theme—the potential uses of foreign exchange holdings by a key

currency country. As I had mentioned earlier, our exchange operations to date have been largely dictated by clear, current opportunities and needs. We have acted in response to market developments and have not sought to become permanent and regular participants in the market for any currency. Our spot exchange holdings—which, on the latest published figures were about \$150 million, built up partly from borrowing and partly from purchases in the easier markets that have prevailed for some currencies so far this year—have mainly been acquired to back up our forward sales. But looking ahead to the future, there may well be good reason for more or less continuous holdings by the United States of some moderate amounts of the convertible exchange of various leading countries.

While it is premature to see clearly where we may be heading so far as the currency holdings of the United States are concerned, it may well turn out that some contribution toward resolving a part of our problem may be found in building up—in time of surplus—holdings of other currencies that are not thought of as reserve currencies in the same way that the dollar and the pound sterling are viewed. Should we do that, either with open holdings or through hedged forward positions, our exchange holdings might be able subsequently to handle a considerable part of the normal swings in payment patterns, leaving the gold reserves available to cover more fundamental and lasting adjustments. There would be no commitment to hold any particular currency, of course, and the relative size of any such holdings would presumably be comparatively small. Nor would there be any lessening of the needed balance-of-payments disciplines upon us or upon others. For changes in our combined reserves of gold and foreign exchange, taken together with changes in our short-term liabilities to foreigners, would then become as significant to the determination of our policies as changes in gold alone have been over recent years.

If such a system were bolstered by suitable international arrangements to insure a steady and orderly distribution of newly mined gold into monetary reserves, much of the pressure—both psychological and real—that arises from the accident of shifts in reserves among other central banks would be lifted from the U.S. gold stock. With such a system we might perhaps be able to view in better perspective our gold loss of the past 5 years as a basic and healthy redistribution of available world gold reserves, a redistribution that has added to the strength of the international financial community.

What I am suggesting is that we need to build further the outer defenses around the liquidity of the International Monetary Fund, which will be substantially augmented by the standby agreement on which progress toward ratification is going ahead with gratifying dispatch. We need to provide a means of further economizing on gold reserves, while insuring that the liquidity needs of our expanding world economy will be met in a manner consistent with the sovereignty of individual countries and with heavy reliance on the discipline provided by the balance of payments.

The net effect, if this line of development should be followed, would be to multilateralize a part of the role performed now by the two key currencies, within a framework that would place great stress on still further cooperation among monetary authorities of the type that has been so successfully developed over the past year or so. It is clear that the attributes of a key currency involve many things—its

use in international trade, its relationship to gold as the ultimate reserve, the existence of broad and deep capital and money markets. In all these respects the dollar is now unique, although we hope to see further progress in the freeing up of European money and capital markets. But what makes a currency good basically is the way the country manages its economy. Where there are a number of strong countries—as there are today—a plausible case would seem to exist for some sharing of the burdent placed on the key currency.

It may be, too, that a system such as I have outlined would be a sensible way to provide for any large increase in longrun liquidity requirements. Long before there can be any agreement on any of this, however, there are many knotty problems that will have to be resolved by our own policymakers and through international consultations—through the Basle Group, through the Organization for Economic Cooperation and Development, and through the International Monetary Fund. But explorations along these lines are far preferable, it seems to me, to the often proposed types of action (involving still more difficult decisions and negotiations) that basically involve an oath of allegiance by all governments and central banks to a synthetic currency device, created by an extranational authority bearing neither the responsibilities nor the disciplines of sovereignty.

On the other hand, a system where countries maintain some mutual holdings of foreign exchange has the extreme advantage of using existing institutions and practices. Within such a system the patterns of reference are known to all; no one will be asked to do things that fall outside the realm of his experience. A system erected on established currencies and mores, would surely have a firmer foundation than one based on artificial devices. At the least, I suggest, there is food for thought in such a possibility—and that, along with the excellent cuisine, is what I have understood to be the provocative aim of these meetings.

BANKING AND THE BALANCE OF PAYMENTS¹

Your meetings have begun here in Atlantic City just as the annual meeting of the free world's finance ministers and central bankers ended in Washington. There, the financial officials of the more than 80 countries renewed, indeed they reinforced, their expressions of confidence in us, and in our dollar. But, gratifying though this is, the reaffirmation of confidence must not be misinterpreted. It does not mean that any of us in the United States can slacken in any way the drive toward getting this country's international accounts into balance. It only means that enough has so far been accomplished to persuade the rest of the world that we will be able, if we try even harder, to finish the job.

That is why our discussion of the balance of payments here this morning is so timely. For the banking fraternity has played, and will certainly continue to play, a leading part in alerting America to its balance-of-payments problems and the new efforts needed to limit costs and raise productivity in order to promote both greater growth and more exports. Bankers know that the dimensions of the problem ahead are still large. To be sure, thus far in 1962, the overall deficit has approximated an annual rate of \$1½ billion—a striking contrast to the deficit of \$2.5 billion in 1961, and to the much higher figure of \$3.9 billion in 1960. While it is still not possible to sort out fully the influence of the recent Canadian difficulties from more lasting factors, the performance this year has been gratifying. But what this also means is that all of the more obvious, the easier measures to reduce the deficit have now been taken. That is why our approach in the Government is, and must be, to give continuing and direct attention, systematically and persistently, to every possible way—large and small—of helping our drive toward balance-of-payments equilibrium.

That is why we have a special Cabinet committee, headed by Secretary Dillon, which reports directly and frequently to the President, in order to speed decisions and assure continuous top-level leadership within all branches of the Federal Government. Out of that committee's work has come a new control system, covering all expenditures of funds overseas by every Federal agency. Every item must now be justified in terms of today's priorities. And the national export drive is receiving new impetus from the appointment last July of an export coordinator who will oversee and expedite all of the vastly expanded services for exporters throughout Government—not passively, but actively, by working with individual companies and industry groups to establish goals for expanded sales around the world.

So far as Government's own part of the deficit is concerned, the large items have been military outlays and economic aid. Over the past 18 months, the Defense Department has cut roughly one-third from

¹ Remarks of Robert V. Roosa, Under Secretary of the Treasury for Monetary Affairs, at the annual convention of the American Bankers Association at Atlantic City, N.J., Sept. 25, 1962.

our net dollar spending abroad for defense—not by cutting down on activities, though some cuts have proved possible, but mainly by persuading our allies that it would pay them to return to us the dollars they receive. How? By purchasing here, at lower costs, some of the military equipment which they need, and achieving the ends of standardization at the same time.

We have been equally vigorous in limiting the balance-of-payments drains from our economic assistance programs. The balance-of-payments impact of the current \$4 billion program is being reduced by providing more aid in the form of American goods and services. Eighty percent of the funds being committed under current directives will directly result in American exports—and I can assure you that every significant outlay for aid that comes within that other 20 percent (that is, spent abroad) must be justified in terms of national priorities at the highest level of Government.

Essential as is this close attention to Government programs, all of us recognize that, in the end, American success must rest on the performance of the private economy—its ability to find profitable opportunities for productive home investment, to reduce unemployment, to improve efficiency, to maintain price stability, and to seek out and penetrate export markets. This is the way, and the only way, we can expect to combine healthy growth at home with external balance. It is just such considerations that underlie so much of our emphasis on tax reform, reform that will stimulate new incentives to work, to invest, and to cut costs. Such reform has already reached some distance by revising depreciation guidelines; will soon hopefully be enlarged by the 7-percent tax credit for investment; and must be furthered in the next Congress by an across-the-board realignment and reduction in the tax rate structure. We simply cannot afford to carry on indefinitely, in this competitive world, with a tax structure that dulls initiative and brakes the economy at levels well below its full potential.

Government itself is now providing American businessmen with more information in detail on foreign markets than ever before. And foreign businessmen are being exposed to many more American products through new trade centers abroad, through trade fairs, and through the determined day-to-day efforts of our foreign representatives. But these activities can reach their full potential only if the facts and opportunities of foreign trade become as familiar to the American businessman as they have long been to his foreign competitor, who, by necessity, has had to depend for generations on foreign markets for his daily livelihood.

The challenge is clear. We look to a further expansion in exports, not in hundreds of millions but in billions, within the next 2 years to help accomplish balance in our payments. That is not unrealistic. During the first half of this year, our exports were 6½ percent higher than a year earlier. But it will take sustained and energetic effort. The Export Coordinator, Draper Daniels, acting within the Department of Commerce, setting goals industry by industry and region by region, is already depending heavily on the new National Export Council, which has 33 regional councils and the participation of 10,000 individual businessmen.

Many of you no doubt are aware of these activities in your own area. You are crucially situated in your own communities to provide

the leadership necessary to make this program a success. I realize that you cannot all become experts in the special problems of foreign trade. But you do know the problems of the local businessman and you can help him find the assistance he needs. Within the banking community itself there are vast resources of knowledge and talent, and it is a challenge to our correspondent banking system to tap these resources effectively and make them available to every American producer capable of reaching profitable outlets in foreign markets.

There is one particular area where your services and knowledge are absolutely essential—the financing of exports. Financing for export, as you well know, presents special problems, some technical and some attributable to the additional element of risk. The Export-Import Bank has long had programs for participating with banks in credits of this kind. The Export-Import Bank's commercial bank guarantee program, geared to the special political and exchange risks, has been streamlined and simplified to increase its usefulness, as many of you know. If any of you still find problems, the Bank's Chairman and President, Harold Linder, wants to know about them. In addition, the resources of private enterprise are now being utilized more effectively through the facilities of the Foreign Credit Insurance Association—a cooperative effort of the Export-Import Bank and 72 insurance companies. The FCIA, operating successfully since February in the insurance of short-term credit, has now extended its activities into the medium-term field, and we expect that it will have actually issued policies to over 1,000 exporters covering potential exports of one-half billion dollars before the end of the year.

This combination of Government support with private enterprise can now provide exporters in this country with credit facilities that are the equal of any industrialized country. I urge you to familiarize yourself with this program more closely by reading a little booklet published just last week by the Export-Import Bank entitled "From One Bank to Another." I understand that copies are available from the ABA office, here and in New York and Washington.

But our balance-of-payments problems include even more than the need to expand exports, both of goods and of services, and to curb the outflow of dollars through Government programs, for they also involve the flows of capital. This country rejects direct controls on the flow of capital, not only because they would be inconsistent with our traditional and fundamental objectives of freeing trade and payments between countries, but for immediate dollars-and-cents reasons—they would cost us more than they could possibly save. Our own money and capital markets are the most highly organized, most efficiently diversified, of any in the world. To try to impose controls over outward capital movements in any one sector of these markets, say, bank loans, would only invite capital flight through many others. And to try instead a comprehensive approach—clamping the cold hand of capital issues controls, or credit rationing, over the entire sweep of the markets—would literally congeal the bloodstream of American capitalism.

No, so far as the outflows of capital are concerned, there is no effective answer outside the forces of the markets themselves. That is why, so far as volatile short-term money flows are concerned, we have combined the influence of debt management and monetary policy for more than 2 years to exert some upward force on short-term money rates.

At the same time, we have minimized the pressures of governmental operations in the longer term market so that constructive investment at home would be encouraged. These measures have been important in stemming outflows into money market instruments abroad and, at the same time, continuing a ready availability of funds for any form of productive new domestic investment—not only during the recession which ended last year but also throughout the expansion phase we have enjoyed since that time.

To those who favor some administrative check on outflows of capital, or those who want some arbitrary forcing up of interest rates on bank loans and capital issues to thwart flows abroad, the answer must be essentially the same—neither the public nor the private sectors can be expected to take action which might handicap the functioning of a competitive, market economy, a capitalist economy. But there are many answers that can be sought short of that prescription. None will cut through the problems with a single, decisive thrust; each will seem minor in itself, but will gain decisive strength by being an incremental part of a comprehensive total effort.

We know, for example, that Europe will not be able overnight to transform its own capital markets in order to carry a larger part of the world's capital requirements. But there are many kinds of steps that can be taken, not only by the Europeans but by Americans as well, that will help somewhat in lessening the pressure for outflows of capital from the American markets while also contributing toward the evolution of needed new facilities in Europe. This kind of approach is symbolized by the work that the Export-Import Bank has been doing, for example, in placing some of its own paper with European investors.

The investment banking community in New York is making a comparable contribution, not only in its own longrun competitive interests but also with shortrun benefit to the American balance of payments, by making increasingly vigorous efforts to attract European funds. Those efforts extend also to the broader listing of American securities on European exchanges. They have resulted in sales of a significant proportion of recent security issues in New York to foreign investing institutions, both directly and in secondary distribution. Pressures have consequently begun to mount within those countries which still maintain tight controls, as individuals seek the freedom to invest abroad and cite, in support of their desires, the currently strong balance-of-payments positions of their particular countries.

And there are ways in which American business and banking can also help in the financing of commercial requirements. Ingenuity in searching out sources of funds abroad for American businesses operating there, as well as imaginative extension of participation arrangements to more foreign lenders in the credits granted by American banks at home and abroad, can pay off in broadened contacts and a wider range of services for any customers engaged in foreign operations.

For the present, in the area of governmental capital flows, we have been successful in developing a large reverse flow to the United States in the form of prepayments of long-term debt owed the U.S. Government by the surplus countries of Western Europe. Prepayments this year by France, Italy, and Sweden have already amounted to \$550 million. We know that such prepayments do not "solve" our balance-

of-payments needs, but they do reduce the outstanding supply of dollars abroad that our foreign deficit would have otherwise produced. They temporarily reduce strains while the slower, but more lasting, forces of market adjustment are bringing our trade and payments position back into equilibrium.

Cooperative efforts between nations have been the basis for most of our progress over the past 18 months toward developing and strengthening our international financial system. The backbone of that system, as it has evolved out of experience since World War II, rests on the widespread use of the dollar as a supplement to gold in the international reserves of other nations and as a medium of international payments.

This convertible gold-dollar system, bulwarked by the resources of the International Monetary Fund, has served the world well. It has provided ample liquidity to support more than a doubling of world trade since 1950, a trend which is continuing with an increase of 6 percent in the first half of this year compared to the like period of 1961. It has permitted the industrialized countries to dismantle part of their exchange controls, to lessen their restrictions on capital movements (and in a few cases to remove them) and to restore the convertibility of their currencies for all ordinary payments. And it has, at the same time, allowed individual nations to work out their own economic destinies, free to develop along the lines of their own capacities and choices, but within a framework of ever-growing cooperation among nations to work out and achieve common objectives.

These are no small accomplishments. Yet, progress has brought with it new problems. In meeting them, again in the spirit of neglecting nothing, of trying to cope with all the pieces of the problem, large or small, we have worked out in cooperation with the other leading countries a new system of defenses for the dollar. Little if any of this could have been done if the United States was not clearly determined to bring its balance of payments back into fundamental equilibrium, and to do this in a way that would be adapted to the progress already achieved in liberalizing trade as well as to the longer run needs for convertibility, liquidity, and growth in the future. All that has been done has rested on the clear understanding—among all of the participating countries—that financial arrangements, essential as they are for the support of trade, cannot take the place of real correction in our underlying balance of payments position.

Convertibility brought with it a freer flow of short-term funds among nations. While this was a highly desirable addition to international liquidity, it also involved an increased risk of sudden and disruptive flows of short-term capital between nations. Funds were now free to move, at least on short-term, among all the leading countries, not only in response to differences in money market rates of interest but also in reflection of changing fears or hopes concerning the weakness or strength of each country's economic position. The balance of payments disciplines—always present—were even more clearly visible. The need was to develop new arrangements which, while never concealing the persisting force of those disciplines, would limit the scope for speculative aberrations which could so easily develop in the new environment.

This is why the United States, working step by step with the leading foreign nations, has taken the initiative over the past year and a half to build an enlarged set of defenses for the international monetary system, building on experience and existing institutions and supplementing and reinforcing the protection already implicit in the world's existing monetary reserves and in the International Monetary Fund.

The new initiatives have taken the form of a new set of arrangements under which the United States, for the first time in a generation, is dealing directly in the foreign exchange markets, in a great enlargement of the resources available through the IMF, and in the application of cooperative arrangements to the London gold market. Taken together, an entirely new dimension has been added to our international financial system.

One innovation is that the United States is now holding foreign exchange as part of its own reserves. These foreign currencies can be acquired when one or another of the leading industrial countries has a deficit with the United States. In turn, such holding, once acquired, can be used, with the understanding of the other countries involved, to buy up dollars flowing into the hands of foreign official institutions, thus becoming an alternative to drawing on our own gold stock, if and when our dollar outflow might exceed the amounts that one or another of these foreign central banks and governments might wish to hold voluntarily. In a similar way, temporary disturbances in the exchange markets can be checked before setting off a massive speculative run as we alternately acquire and then release holdings of the other major currencies. Moreover, our holdings of foreign currencies (or arrangements permitting us to borrow them on a limited standby basis) can support much larger sales of forward exchange. By participating in the forward markets to assure larger availabilities of "turn-around" facilities, we make it feasible, for example, for private parties abroad, who may wish to hold dollars passing into their hands for temporary periods, to go on holding them while assured of the availability of enough of their own currency to meet expected needs at some later date.

With our own balance of payments in deficit, we have acquired foreign currencies to support these activities largely by means of so called swap agreements arranged by the Federal Reserve with our principal trading partners. These agreements provide for a reciprocal exchange of currencies, usable by either party when needed to meet temporary shifts in the international flow of funds. In addition, we have, on occasion, acquired currencies from certain countries, so far in modest amounts, by outright purchase, by direct Treasury borrowing, or by accepting repayment of debts owed the U.S. Government in usable foreign currencies rather than dollars.

Thus far, the operations have been mainly in the nature of "pilot" projects, testing and probing the mechanical possibilities and their possible usefulness. But experience has, I believe, already demonstrated their value in meeting specific situations, involving marks, Swiss francs, lire, guilders, and Belgian francs. One encouraging characteristic of the operations already undertaken has been the early reversibility of many of them. This point clearly emerges from the recent full report on Treasury-Federal Reserve operations prepared by Charles A. Coombs of the New York Federal Bank. The release

of this report reflects our policy of making available to the public, from time to time, as much of the detail of our operations as we possibly can.

I should stress again, too, that it is no part of our intention to disguise the basic forces of supply and demand, or the various market evidences of changing needs and conditions in the international financial position of the United States or any other country. We want and need the sensitive signals of changes in fundamental forces that are reflected in price fluctuations in free markets. And as one of my foreign friends remarked to someone from another country, perhaps with a slight ulterior motive, the United States publishes and discloses its record so freely and frequently that it could not—even if it were to try—hide the facts of its balance-of-payments position from the intelligent observer.

Useful as these operations in the exchange markets have been, it is not their past or current size that is so significant—although the United States does have, today, approximately \$900 million of foreign currencies at its disposal, either in the form of cash or standby facilities. Rather, the significance lies in the pattern set for meeting future contingencies—the technical feasibility of the arrangements, their expansibility in time of agreed need, and the ability to pinpoint the use of our resources at the point and time of need.

All of these new arrangements are, of course, reinforced by the enlarged capacity of the International Monetary Fund to provide assistance in time of need. As a result of the increase in subscriptions voted in 1958, the United States alone has a Fund quota of over \$4 billion. These facilities are being further supplemented by the new \$6 billion standby credit pool agreed to by 10 of the industrialized countries last December, a pool in which the U.S. share of \$2 billion is now awaiting final approval by the Congress.

Taken together, these new arrangements—emerging from a mutual understanding of common problems and needs among the industrialized countries—powerfully enlarge the defensive capabilities of our convertible gold-dollar system to withstand strains or shocks from any source. A little of their defensive potential can be glimpsed in the assistance that emerged so promptly and effectively at the time of the recent Canadian difficulties, and during the spring of 1961, when sterling was under heavy pressure. But it is clear that the emerging system is capable of much more, including both defending the dollar itself from any conceivable attack as well as contributing to the needs of the world for adequate international liquidity over the years ahead.

The U.S. decision to hold foreign currencies as part of its reserves—taken in conjunction with the wide range of cooperative facilities being worked out with other leading countries—can make a major contribution toward enlarging the usable means of international payments. But we have only made the beginning. The skills, energies, and judgments of many men, in many countries, will be needed to fashion the changing shape of these and possibly other new measures as experience provides the needed tests.

The renewed and healthy confidence in the stability of our international monetary system so evident at the sessions of the world central bankers and finance ministers at the Fund meeting last week nonetheless reflects, already, an increased appreciation of the arrangements now in place—arrangements that have necessarily been revealed only in

bits and pieces as they have emerged over the past 18 months. It is worthwhile repeating the closing sentence in the appraisal contained in a communique issued last Wednesday (September 19) by the members of the 10 countries in the Fund's special resources group:

The additional resources thus provided, together with present national reserves and the existing resources of the IMF, are large enough to provide the support that might be needed to assure the stability of the existing exchange rate system as based on present gold parities.

But I cite that only to introduce the more important conclusion: We must not claim too much. The emerging system presupposes—as any workable arrangement must—that the United States and other leading nations will pursue their expanding growth objectives and do so by methods that will also assure an equilibrium in their basic trade and investment accounts. That is why I have emphasized the priority of the measures for meeting our own balance-of-payments problem here today. And that is why it is so important—as the President stressed last week—that other countries, now capable of doing so, assume a fuller share of the burdens of defense and aid.

In attacking those real and difficult tasks, we should not be diverted either by false fears for the stability of our monetary system or by vain hopes that mere monetary reform can substitute for more basic measures. To sink back into complacency would be to undermine all our very real achievements to date. But we must also appreciate the progress that has been made, so that we can identify the real challenges of the future and turn our energies toward meeting them. In that process, the bankers of the Nation can play a vital and constructive role.

ASSURING THE FREE WORLD'S LIQUIDITY ¹

In the present international financial climate, three familiar proposals are being widely discussed again on the grounds that they can assure the international liquidity that is necessary to absorb the shocks of any spreading disturbances:

Devaluation of the dollar by doubling or trebling the dollar price of gold.

"Guaranteeing" the dollar's present price so that other countries can readily go on accumulating more dollars to provide their needed increases in liquidity.

Immediate launching of plans for pooling all the international reserves of the Western World's monetary systems in a new supranational bank—usually visualized as one empowered to create additional supplies of a new international reserve currency that all subscribing countries would bind themselves to accept.

The latest expressions of support for these revolutionary approaches come at a time, perhaps surprisingly, when the United States, in cooperation with most of the other free industrial countries, is completing the groundwork for the most comprehensive restructuring of international liquidity arrangements since the founding of the International Monetary Fund at the end of World War II.

The paradox is understandable, for while the nature of practical monetary operations demands that they be established with the knowledge and the confidence of responsible financial officials in other countries, it is equally necessary that progress of this kind must initially evolve within a framework of confidential discussions and limited, step-by-step operations. There are grave risks of setting off disruptive speculation if there should be haphazard or uncoordinated release of information on any negotiations in process, or if new steps should be initiated or announced without preparation for cooperation by other affected countries.

That is why—although Treasury and Federal Reserve officials have been negotiating and designing and installing parts of the new structure for the past year and a half—it has not been possible in public discussion to make more than a few hinting references to the overall pattern as a whole.

That is why some alert critics have, quite understandably, charged that those bits and pieces of the new machinery which were actually installed and publicly announced seemed to be only a patchwork improvisation of minor devices.

And that is also why, during the recent unsettlement over economic conditions here—coming before the United States had achieved the fundamental correction of its balance-of-payments position upon which the real strength of the dollar in the world depends—responsi-

¹ By Robert V. Roosa, Under Secretary of the U.S. Treasury for Monetary Affairs; reprinted from Business Review Supplement, Federal Reserve Bank of Philadelphia, September 1962.

ble observers have turned to the better known, widely discussed proposals of earlier periods of unrest, instead of joining in an appraisal of the potentialities of the new design.

Fortunately, enough has not been accomplished to be able to put together a sketch, if not a blueprint, of the structure as a whole. Each of the pieces already in place has been reviewed and approved by President Kennedy; those which involved interpretations of existing legislative authority have been discussed in advance with the chairmen of the respective congressional committees; some have required legislation, which has either been obtained or is now before the Congress. Other steps are ahead, but they will need to be shaped by critical public discussion, just as all of the measures already taken will be adapted on the basis of the experience now being gained.

Even the steps already taken would seem, however, to remove most of the premises on which cases have been built in the past for devaluation, or guarantees, or a heroic new supranational organization. Appraisals in the future will have to take into account all of the new developments, as well as the vast array of new dangers that any one of these three other approaches would create. But before turning to the sketch of what is new—a sketch that can be filled out more fully before the end of this year as other still-confidential efforts mature—it should be helpful to restate briefly the problems implied by the wide-ranging consideration of international liquidity and to take a look at the way devaluation, or guarantees, or a superbank might be expected to cope with such problems.

I

International liquidity is needed to service the regular flow of payments among countries, to finance the shortfall when any particular country's outpayments temporarily exceed its inpayments, and to meet large withdrawals caused by outflows of capital. The responsible financial officials of virtually all countries are agreed that aggregate monetary reserves on hand or mobilizable in the world today are adequate for regular payments and for temporary swings in needs. The three debatable questions are: (1) Whether particular countries, notably the less developed, have access to enough reserves for their regular needs, that is, whether the distribution of existing reserves should be improved; (2) whether the emergency sources of liquidity, particularly in the event of runs on any of the larger countries, are adequate; and (3) whether existing facilities assure an adequate growth of total reserves for the future needs of an expanding world economy.

Devaluation, guarantees, and a superbank are all proposed to answer, in one way or another, these three questions. Yet each would, in providing its answers, gravely alter important parts of the monetary system on which the world depends, and which everyone takes for granted today. The new convertible gold-dollar arrangements, however, build upon existing currencies and payments facilities; recognize the limitations upon monetary devices as solutions for fundamental economic problems (including those underlying the recent U.S. balance-of-payments deficits); and avoid the hazards of despair and economic disruption so likely to result from the displacement of the dollar as the universally recognized supplement and alternative to gold in meeting the international liquidity reserve needs of the world.

II

Raising the price of gold by devaluing the dollar would certainly be followed by similar action on the part of other countries. An increase in the gold price, would thus not help the U.S. balance-of-payments. It would, however, mean writing up the gold reserves now held by any country, presumably providing a "profit" which would permit all countries, large and small, to start afresh with a feeling that, by the stroke of a pen (or a legislative act), they had become richer. Any present maldistribution would presumably seem less constricting with everyone suddenly better off; the greatest gainers might feel better able to lend reserves to those still in some need; total reserves would be so much greater that concern over future liquidity requirements would disappear; and the larger totals would provide fresh supplies of liquidity to meet any capital flight likely to occur—or so the argument goes.

But, in fact, devaluation of the dollar would, for practical purposes in the future, virtually destroy as much reserve liquidity as it might seem to create. For every holder of dollars before devaluation would have been tricked into heavy losses; losses as large as the gains would seem to be to those who had held gold instead. The possibility that the dollar could again serve, in any meaningful volume, as a usable part of general monetary reserves would disappear. In effect, the dollar holdings of other countries would thereafter be consumed, and the large part of world liquidity now represented by dollars would be gone. The world would be left without a major currency, generally acceptable as a supplement to gold. That is why most serious consideration of international monetary reform has long since dismissed devaluation of the dollar as a practical possibility, and has turned instead toward "guarantees," or the founding of a superbank, or both.

III

The appeal of a dollar "guarantee" is that it presumably assures the world that devaluation will not occur. For the key provision of any generalized guarantee must be that all dollars held as monetary reserves would receive full compensation for all losses in the event of devaluation. The aim of such contractual assurances is, of course, to persuade the other countries of the world that they can readily go on accumulating more dollars without any risk of loss. If guarantees were in this way able to assure all needed increases in liquidity without any offsetting consequences, it would seem that they could fit in very well as simply another feature of the new structure being erected for the convertible gold-dollar system.

In that event, so the argument goes, any existing maldistribution of liquidity could be met through assistance from the United States, with no risk that the further shifting about of such reserves, following their use by the needy countries, would bring them into the hands of unwilling holders. With everyone made absolutely certain that dollars held in monetary reserves would be revalued in the event of changes in the U.S. gold price, quick negotiations might ensue for effecting a uniformity in the ratio between gold and dollars in the reserves of other countries. Presumably there might even be a major move to turn in gold and acquire additional dollars, on which interest might be

earned. There would seem to be no problem then of assuring ample liquidity for the indefinite future; an increasing supply of dollars would always be acceptable to fulfill such needs. Moreover, there would never be reason to fear the effects of any sustained balance-of-payments deficit, or to be concerned if domestic developments in the United States caused investors to move large blocks of capital out to other countries—in any such circumstances, the United States could simply take it for granted that the additional supplies of dollars thus created would end up in the monetary reserves of other countries, who would be content to hold them because of the guarantee.

But this recital of the gains to be expected from the use of guarantees itself suggests that perhaps the prescription is too good to be true. Those who have become enthusiastic proponents of guarantees seem sometimes to forget that the strength of the signature on any guarantee depends upon sustained confidence in the credit of worthiness of the signer.

Moreover, the highest credit standing—and a currency capable of supplying the monetary reserves of the world should scarcely aim for less—is that of the debtor whose net worth is so great, and whose performance is so reassuring, that supporting guarantees would never be offered or required. What this means, translated into the position of the United States as supplier of reserves for the world, is that we cannot escape a fundamental interdependence between the strength of our economy, our balance of payments, and the dollar.

The case for guarantees rests upon a contradiction: in giving a guarantee, the United States would expect to release its domestic economic performance in some measure from the constraints imposed by the need for balance-of-payments equilibrium; in accepting a guarantee, other countries would expect the United States to maintain their confidence in its internal and external economic performance; otherwise, the guarantee would not be granted or renewed. Thus the United States would, in relying upon guarantees, incur an obligation initially or eventually to engage in recurrent negotiations with country after country. The end result would be either disciplines or constraints upon our own economic policy which, at the very best, could be no different from those already apparent, and which might, at the worst, become a complicated straitjacket of additional obligations, or the guarantee would be found unacceptable and all its supposed advantages would be lost.

Many countries today object to our balance-of-payments deficit, on the grounds that we are financing an aid and military effort which they could not afford, or would not willingly undertake, by foisting on them dollar deposits which they have no need to hold. Why should they, simply because they are offered a contractual guarantee, become implicit partners in underwriting programs that they themselves would reject? On the contrary, how much more likely may it be that one country after another will interpose conditions on its readiness to accept a guarantee—conditions that will at the least interpose their judgments more specifically into the determination of our military, aid, or investment activities abroad, or perhaps be made dependent upon our adopting their own formulas for achieving the needed further shrinking of our overall balance-of-payments deficit? And where would we find ourselves when the demands of one of our guaranteed creditors conflicted with those of another? How close might

our position then seem to be to that of the debtor approaching receivership, with tier upon tier of first-, second-, and third-mortgage claimants to satisfy? Rather than negotiate the relative priorities of such contractual liens, the United States might be better advised (as Chairman Martin has recently intimated when asked about guarantees by the Joint Economic Committee) to give up altogether the obligations of maintaining a reserve currency for the rest of the free world.

There are many of the industrial countries, too, which fear any further substantial diversion of the resources of the International Monetary Fund into the financing of recurrent distress situations in many of the underdeveloped countries—distress situations which the affected countries customarily view in simple terms as a shortage of liquidity available to them. Can we expect these same critical industrial countries to accept more dollars, just because they carry a guarantee, if the dollars arise from continued or additional American effort to supplement the contributions being made by the International Monetary Fund toward these frequent "liquidity" requirements of the less developed countries?

Some part of the current movement of capital from the United States toward Europe is apparently induced by interest rate differentials that are somewhat higher than normal relationships would otherwise bring about. Will the monetary authorities of other countries be content to go on acquiring more and more short-term dollar liabilities, as the byproduct of these capital movements, simply because their gold value is underwritten by a contractual guarantee? Or will they take advantage of the negotiations relating to the introduction of guarantees to lay down their own conditions with an impact at least as severe, perhaps considerably more so, than that now exerted?

Surely any responsible financial official in this country would expect to negotiate in exactly that manner, and to exact much more precise and limiting conditions, if we were being expected to rely on a guarantee of the gold value of any one other currency to provide a major part of our own international reserve needs. The financial officials of the other countries are neither more modest nor reluctant to exact conditions than we would be.

There is, in fact, no real escape, certainly not so long as we maintain a reserve currency for the world, from the kinds of limits upon our complete freedom of action which these various illustrations suggest. The one way to be assured of greater freedom is to achieve balance-of-payments equilibrium and, from time to time, a surplus in our own balance of payments. The effect of guarantees is, indeed, instead of creating greater freedom for us, to center all responsibility upon us. For those in the position of accepting guarantees are able to dictate their terms. If, instead, there can be a sharing, in some increasing degree, of the responsibilities now borne so largely by the dollar alone, the leeway remaining to use for independent action on our own initiative should broaden rather than shrink as expanding liquidity needs are met over the years ahead.

And in all of these reservations concerning the possible role of guarantees, there is another pervading theme which cannot be obscured. The United States abrogated a gold clause in contracts once; the action was supported by the Supreme Court and approved by joint resolution of Congress. What assurance can a mere guarantee provide again? Is not the real basis for any confidence to be found in the

strength, performance, and credibility of the American economic and financial system, and only there?

IV

One great attraction of a supercentral bank, or "an International Federal Reserve System," is that it would clearly provide for a mutual sharing of responsibilities by all of the countries of the world. Whether created out of the existing International Monetary Fund, or established as a completely new institution, its role would be to pool the reserve balances held by all countries, or at any rate all countries of the free world. The deposits held in the superbank could be transferable on its books, so that the resulting differences between inflows and outflows of any given country could be settled through a central clearinghouse. The dollar would no longer have any special role to perform as a reserve currency; that role would instead be shifted to some newly christened monetary unit of account, representing the deposit balances held at the superbank.

While gold might still hold some attraction, and could be used as an alternative means of settling differences of accounts among countries, there would presumably be no essential role for gold in the system. Much of it might find its way into the vaults of the superbank itself or gradually disappear in industrial uses.

On the assumption that the total supply of reserves available at the superbank could grow, and grow at a controlled rate that would preclude worldwide inflation and a reluctance to hold the reserve balances on deposit there, any longrun growth needs could be readily satisfied. The liquidity requirements of underdeveloped countries might be met through advances or loans extended to such countries by the superbank itself. And any serious pressures on a given country, because its balance of payments was in grave deficit on trade account, or because capital was leaving the country in heavy volume, could also be met through loans and overdrafts on the books of the superbank.

There are many variations and nuances and combinations of these several features which have been suggested in the writings of various proponents. But all such elaboration would represent a fruitless exercise if the basic premises on which the establishment of such a superbank rests should prove unsupportable. That, perhaps regrettably, is the inescapable conclusion dictated by the actual ways of the world—today and for any foreseeable future.

The money created by a superbank would be the most high-powered ever generated by a manmade institution, yet it would have no supporting super government to make good on its debts or claims. Even with all the underlying resources of the richest nation on earth, the performance of the United States in providing additional reserves has been at times rather conspicuously called into question. And, in our case, the world has the basic assurance that our performance will continue broadly to meet the tests of economic requirements because otherwise pressures can be exerted upon us through our own balance of payments. There will be no comparable assurance, and no comparable underlying strength in the new body. Instead, reliance must be placed upon the conflicting interests represented in a multinational legislative body, to judge and resolve conflicting demands for larger or smaller increases in the supply of the new monetary unit, or for a

greater or lesser shifting of its lending power toward one group of countries or another.

Even accomplishment of the first steps would be an heroic achievement. Simply to establish the superbank would require all countries of the world to give up their present reserves and accept instead the fiat issue of a super authority existing without a superstate. But assuming that could be done, what would happen when differences of view begin to exercise conflicting pulls upon the central organization? So long as monetary systems within individual countries continue to be managed by men who think and act as bankers, one after another will begin to hedge his country's own position either by acquiring gold or by acquiring increasing holdings of one or more currencies of other countries in which he has confidence. And so long as trade continues among sovereign nations the opportunity to convert holdings of the superbank's monetary unit into holdings of one currency or another will be available.

Thus it would be inescapable so long as major differences in economic policy arise among different countries that those differences will prevent the systematic direction of the superbank on uniform and consistent lines. The outcome if it is not utter chaos and impairment of normal payments transactions among nations is likely, instead, to be a drifting back toward systems of reliance upon clusters of currencies, and dependence on the strength given to them by the economies which underlie them. The drift, if it is in that direction, will indeed be back toward a system of arrangements very similar to that now evolving as part of the structure of the new convertible gold-dollar system.

V

The claims for this evolving convertible gold-dollar system are necessarily modest. The experience gained as step-by-step innovations are being put in place is providing ample evidence that workable arrangements depend fundamentally upon confidence rather than upon binding compacts—and confidence in monetary affairs, as in political or business life, is not attained once for all in a single negotiation, or a single declaration or compact, but is gained through continuing performance. Moreover, it has become irrefutably clear, if there was ever any doubt, that major initiatives cannot succeed unless the leading countries are prepared to support them by working toward equilibrium in their balance-of-payments accounts, whenever internal disturbances, outside events, or ordinary economic developments create other pressures away from balance.

Nonetheless, it already seems reasonably certain that the new structure being erected around the established gold-dollar system can make possible important additions to the liquidity of underdeveloped countries; can provide ample resources for promptly meeting heavy drains or a run on the currency of any leading industrial country, including the United States; and can assure the flexibility and growth in total liquidity needed to serve the requirements of trade in an expanding world economy for some years ahead.

Further potentialities may come into view as and if the Common Market becomes a unified monetary system, and forward planning for that eventuality may soon introduce a new dimension into the consideration of arrangements for international liquidity. But at

least until that greater fusion of the Common Market countries occurs, the essence of the monetary system of the free world will no doubt continue to be the fixed relationship between gold and the dollar, with the United States standing ready to buy or sell gold at its established price of \$35 per ounce. The principal source of increases in liquidity will continue to be the annual increments of gold to the monetary reserves of the world, supplemented, from time to time, by controlled increases in the dollars held by other countries as a part of the monetary reserves.

Standing astride the gold and dollar reserves of most countries of the world, will be the International Monetary Fund, into which all member countries have contributed working balances of gold and their own currencies, in amounts related to their own quotas (or conditional "drawing rights") in the Fund. Surrounding the dollar is a constellation of special bilateral relationships between the dollar and the separate currencies of most of the other leading industrial countries. Surrounding the gold reserves is a set of relationships now largely worked out through the London gold market, but representing participation by the leading European central banks, known colloquially as the "Basle group" which now also includes the United States.

The innovations of the past year and a half have centered upon the resources and usability of the International Monetary Fund, upon the direct relations between the dollar and other leading currencies highlighted by our initiation of activity in the foreign exchange markets, and upon the special arrangements for influencing the flow of gold into the world's monetary reserves. Virtually all of the changes have represented, and resulted from, a growing readiness on the part of the other leading industrial countries to begin to consider, and cautiously to undertake, some sharing of the responsibilities formerly carried so largely by the dollar.

Comprehending and reinforcing all of the new arrangements are the various activities of the OECD, and more particularly, its working party devoted to balance of payments and financial problems. Here, the opportunity for continuous interchange of information and criticism, among the leading industrial countries, provides the base of communications needed to carry forward operations that require mutual understanding of current developments and current policies. At the same time, it is conceivable that work can go forward through this and other organs of the OECD toward preparing the way for the next stage of practicable and foreseeable innovation in the area of international financial arrangements—the fusing of the United Kingdom into the Common Market; the evolution of a unified financial mechanism to serve the expanded Common Market; and the forging of appropriate operating and policy links between that organization, once it emerges, and our own financial institutions.

Meanwhile, it would be quixotic to hope, however, that the new arrangements will solve the liquidity needs of the underdeveloped countries; for, in a full sense, nothing can. So long as these countries are energetically pursuing development programs, any international reserves not actually required as current working balances will be consumed in the purchase of more imports. Mere increases in reserves, therefore, will largely disappear. The need of these countries is for some greater assurance concerning the markets and prices of the

raw materials they sell; for as much aid as can effectively be absorbed from whichever industrial countries are able to provide it; and for emergency facilities to provide needed foreign exchange to bridge unexpected seasonal or cyclical reverses. None of these needs can be met simply through broad global action; all are the object of energetic further effort by the United States and various international bodies at the present time.

So far as aid is concerned, the activities of already existing international institutions are being reinforced through the establishment of consortia to attract, into each of the underdeveloped countries as programs are developed, additional funds from the more prosperous countries of Western Europe. And, with respect to emergency requirements, joint action by the International Monetary Fund and interested outside governments (often accompanied by leading commercial banks) provides practical possibilities for the kind of emergency assistance that can be used without abuse.

The most prominent question currently, however, is whether the new arrangements of the convertible gold-dollar system, once established and understood, can provide a mobilization of reserves to meet sudden and heavy drains upon the dollar itself. So far as the precipitation of a run through pressures on the London gold market may be concerned, the Basle group has already achieved important results. Price changes are occurring only over a range wide enough to make speculation costly, and there is now a close, participating interest on the part of the principal European countries, as well as the United Kingdom and the United States, in the maintenance of orderly conditions there. To be sure, so long as nations and individuals are free to exercise choices, and so long as changes occur in the degree of confidence in the dollar or in other currencies, it will be impossible to escape pressures. The gain has come in curbing capricious or mere follow-the-leader raids upon the gold which serves the world's monetary reserve needs, and in sharing the responsibility for required action. Perhaps in an ideal world the interrelated monetary systems would function even better if private individuals were not allowed to own gold in any country, and if no London gold market existed. But for the world that we have, the present arrangements represent a marked change and improvement—a change which necessarily rests upon mutual and voluntary action based upon confidence.

In a somewhat comparable way, through reciprocal holdings of currencies, through engaging in forward transactions in currencies, and through the outright borrowing of dollars or of other currencies from foreign countries, the United States has developed arrangements to cushion or offset a substantial part of any disruptive short-term capital outflows, or to minimize the impact on our central gold reserve caused by shifts of monetary reserves from countries whose gold ratios are low to those whose gold ratios are high. To be sure, these arrangements, too, could not be worked out if other countries felt that the credit risks were great; that is, if their confidence should weaken in our ability and determination to regain the initiative in controlling our own balance of payments, and to maintain the freedom of our capital markets as well as the ready interchangeability between dollars and gold. Nothing has been done which has not reflected the combined judgment of both countries involved in every set of bilateral relationships. Given that basic approach, and the mutual

confidence it implies, however, a new pattern of arrangements can provide an increasing measure of protection for the dollar against incipient developments that might otherwise grow into serious runs.

But for the eventuality that a run might actually occur, new arrangements have also been made. By providing additional standby resources for the International Monetary Fund, the 10 leading industrial countries, whose actions will become effective as soon as the necessary legislation passes through the appropriations process in the American Congress, have made certain that adequate supplies of other currencies will be available to meet any needs that we might expect to face. So far as other countries are concerned, the recent mobilization of more than \$1 billion within a 48-hour period to stop a raid on the Canadian dollar provides striking evidence of the flexibility, the speed, and the magnitude of the facilities now available. And it is interesting evidence of the results that Canada has already, even before its longer range program has been announced or implemented, regained, within 2 months, roughly two-thirds of all the reserves it had lost over the first 6 months of the year.

Looking further ahead, the new arrangements also are capable of providing for a steady growth in the monetary reserves needed to service the trade requirements of an expanding world. Dollars are still the currency to which all countries turn for a substantial part, if not the entire amount, of their international payments. Our financial institutions and our markets are increasingly well equipped to service the payments requirements of the world. It is a role which naturally accompanies our leading economic and political position. The only reason that the usefulness of the dollar has come into doubt is that, for some time, dollars have been added to the "money supply," i.e., the monetary reserves, of other countries at too fast a pace. That is because our balance of payments deficit was, in effect, creating reserve dollars for others, at a rate which outran the current requirements for liquidity in the world's monetary reserves. In those circumstances, just as occurs when money is created too rapidly inside any single country, renewal of the ready acceptability of the currency depends upon limiting further increases until the uses for that liquidity should have caught up.

Once the United States has its balance of payments fully under control, the rate of increase in the supply of dollars available to serve the international liquidity requirements in the world can also be managed. Whether or not there is a corresponding proportionate increase in the underlying supply of gold in the world's monetary reserves, additional increases in the supply of dollars can rest upon an accumulation by the United States of incremental amounts of the currencies of other leading countries. These other currencies, while not equally capable of serving the multitude of functions required of a reserve currency, can, as the United States acquires holdings of them, be brought into a further mutual sharing of some of the responsibilities which the international reserve system must itself carry.

What this may mean in the future in the way of additional consultation and negotiation with respect to the particular currencies so used, and the manner in which such currencies may cushion drains upon the dollar at particular times—serving in that respect as a substitute for drains upon the gold reserve itself—all remain to be

worked out in the tests of day-by-day experience. But the structure of the new relationship has already been established. Its potential capabilities for meeting the world's longer run liquidity requirements are clearly at least as promising as any of the more familiar proposals. And its possibilities for practical operation in everyday affairs are clearly much enhanced by the fact that the new system builds directly upon the existing payments procedures to which governments and individuals are already well accustomed. This would seem to be not only the most promising, but also the most reliable, pattern for new developments to follow.

TREASURY AND FEDERAL RESERVE FOREIGN
EXCHANGE OPERATIONS

By

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TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

This joint interim report reflects the Treasury-Federal Reserve policy of making available additional information on foreign exchange operations from time to time. The Federal Reserve Bank of New York acts as agent for both the Treasury and the Federal Open Market Committee of the Federal Reserve System in the conduct of foreign exchange operations.

This report was prepared by Charles A. Coombs, vice president in charge of the foreign department of the New York Reserve Bank. It covers the period March 1961–August 1962.¹

The resumption of foreign exchange operations by the U.S. Treasury in March 1961 and by the Federal Reserve System in February 1962 has been part of a cooperative effort by treasuries and central banks on both sides of the Atlantic to create a first line of defense against disorderly speculation in the foreign exchange markets. Recognizing that the dollar is the cornerstone of the entire international currency system, this cooperative effort has mainly taken the form of arrangements between the United States and other leading industrial countries adapted to the special needs of the countries involved. Continuous, close consultation among all of the treasuries and central banks concerned has avoided any conflicts of policy or operations within the group as a whole.

BACKGROUND TO OPERATIONS

Under fair weather conditions, speculation can and does play a highly useful role in the foreign exchange market by helping to correct temporary deviations of spot and forward rates from the levels appropriate to underlying payment trends. Thus a decline in the spot or forward rate of one currency resulting from a temporary market imbalance may stimulate new demand for that currency by alert traders expecting a rebound in the rates.

On the other hand, when the exchange markets become seriously unsettled by political or economic uncertainties, normally beneficial speculation may quickly become transformed into a perverse, and sometimes even sinister, force. The latter type of speculation may be motivated, on the one hand, either by a natural desire to protect capital values or, on the other hand, by the prospect of a quick capital gain. In such periods of market anxiety, abrupt declines in the spot or forward rate for a given currency may take on a grossly exaggerated significance, the exchange market may become a prey of purely imaginary fears, and selling or buying pressures on the exchanges may

¹ Originally published in the Monthly Review of the Federal Reserve Bank of New York, October 1962.

quickly acquire cumulative force. Even minor speculative squalls may have disturbing effects upon the normal flow of trade and payments, while very severe attacks have on occasion forced governments into unwanted changes of currency parities.

Official foreign intervention in markets

Although foreign central banks have for many years intervened in their foreign exchange markets to protect their currencies against speculative disturbances, the United States had refrained from such operations from the end of World War II until early 1961. This difference of approach goes back to the Bretton Woods agreements. Under the articles of agreement of the International Monetary Fund, member countries agreed to establish par values for their currencies in terms of gold or the U.S. dollar and to limit fluctuations in their exchange rates to no more than 1 percent above or below the par value. In many cases, foreign countries have fulfilled their obligation to the International Monetary Fund by purchasing or selling U.S. dollars against their own currencies in order to keep their exchange rates from rising above the "ceiling" or falling below the "floor." Foreign central banks may also operate in the exchange markets between the margins, and many central banks do so to prevent sharp movements in the rates. As the exchange rate moves upward (or downward) a country may buy (or sell) dollars against its currency to slow the rate movement, or even to halt it completely at some point within the official margins. Such purchases and sales, by ironing out sharp fluctuations in rates, help to maintain orderly conditions in the exchange markets, thereby facilitate the flow of trade and payments, and contribute materially to the maintenance of confidence in currencies.

Foreign official intervention on the exchanges is generally conducted through purchases and sales of U.S. dollars, the principal reserve currency. Such exchange intervention results in changes in official holdings of dollars, increasing them when the demand for the foreign currency is strong and reducing them when demand is weak. Most major countries hold only a part of their reserves in dollars—sometimes a very small part; the rest is held mainly in gold. If exchange intervention is undertaken on a large scale, such countries may acquire more dollars than they wish to hold; if so, they will convert their excess dollars into gold. Conversely they may have to sell gold to acquire the dollars necessary for support operations.

Role of dollar convertibility into gold

The willingness of foreign central banks to acquire and hold dollars as part of their reserves depends on the assured convertibility of such dollars into gold at a fixed price. As part of the Bretton Woods system, this assurance is provided by the United States, which undertakes to maintain a fixed par value for the dollar by standing ready to buy or sell gold against dollars at a fixed price of \$35 per ounce in whatever amounts may be requested by foreign monetary authorities. This system of defining and maintaining the parity of the dollar in terms of gold, while the parities of other currencies are maintained by buying and selling dollars, has greatly encouraged the development of an international gold exchange standard. Under this system the United States serves as banker for the dollar exchange reserves, now more than \$11 billion, of 82 countries throughout the world.

As banker for the international currency system, the role of the United States until recent years has been largely passive. Although foreign central banks resisted declines in their currency rates toward their floors, they had no obligation or incentive to resist similar declines in the dollar against their own currencies. As the dollar came under pressure from time to time in world exchange markets, the dollar rate therefore tended to slip to the floor. At this point foreign central banks would then fulfill their obligation to take the surplus supply of dollars off the market. If they wished, they would then convert part or all of these dollars into gold.

Currency crisis of 1960

This passive stance by the United States, in which both the rates for the dollar against foreign currencies and the accumulation of dollar reserves by foreign central banks were left entirely to market forces, and to the unilateral decisions of foreign monetary authorities, gave rise to no serious problems for many years after the war. By 1960, however, successive U.S. balance-of-payments deficits had brought about both heavy gold losses and sizable increases in our dollar liabilities to foreigners. At this point, the dollar became subject to rumors of impending changes in U.S. international financial policy, with widespread doubts developing abroad as to whether the U.S. Government could and would maintain the \$35 price for gold.

The resultant wave of speculation against the dollar was effectively stemmed in early 1961 by a Presidential pledge to maintain the gold price, to make our entire gold reserve available to defend the dollar, and, if necessary, to draw upon the IMF as a supplementary source of reserves. Most fundamental of all, of course, was announcement of action to correct the balance-of-payments deficit, and this program has subsequently shown gradual but solid results.

Effects of revaluation of mark and guilder

Meanwhile, the recovery of confidence in the dollar remained vulnerable to sudden shocks, and these were not long in coming. On the weekend of March 4, 1961, the German Government announced the upward revaluation of the mark by 5 percent. Shortly after that the Netherlands Government announced a similar change in the guilder parity.

However effective these moves may ultimately prove to be as a contribution to international balance-of-payments equilibrium, their immediate effect was a shattering blow to market confidence in the system of fixed currency parities. All major currencies immediately became labeled as candidates for either revaluation or devaluation, and an unparalleled flood of speculative funds swept across the exchanges.

Speculation on a revaluation of the Swiss franc became particularly intense, with the result that more than \$300 million flowed into that country in 4 days. Most of the dollars acquired by the Swiss National Bank and other continental financial centers were the counterpart of a major speculative attack on sterling, with the Bank of England suffering heavy reserve losses.

At this critical juncture, the central bank governors attending the monthly meeting of the Bank for International Settlements in Basle announced that their central banks were cooperating in the exchange markets. The scale of this cooperation in credits to the Bank of England reached a total of more than \$900 million and played a vital role

in providing a breathing space during which more fundamental measures could be taken by the British Government.

TREASURY INTERVENTION IN THE MARKET

Although the dollar emerged relatively unscathed from the first speculative attacks, the massive reshuffling of foreign-owned funds resulted in heavy accumulations of dollars by certain foreign central banks, with the possible consequence of sizable drains upon U.S. gold reserves. Anticipations of a second revaluation of the German mark generated a continuing heavy flow of funds to Frankfurt, with the result that the dollar reserves of the German Federal Bank rose to \$4.1 billion by March 31 as compared with its gold reserves of \$3.2 billion.

Operations in German marks

The disruptive effect of such speculation on the normal flow of German trade and payments was reflected in a scramble by non-Germans with contractual liabilities in marks to anticipate their requirements. Meanwhile German residents sought to hedge against contracts payable to them in dollars or other foreign currencies. The forward exchange market could hardly cope with such an abrupt swing in expectations, with the result that the premium on the forward mark or, viewed the other way, the discount on the forward dollar, rose to nearly 4 percent. At that exaggerated level it tended to reinforce expectations of a further revaluation of the mark.

The limited availability of forward cover, even at such expensive rates, diverted commercial hedging demands into foreign purchases of spot marks to cover future mark contracts and German borrowing of dollars, both in New York and in the Euro-dollar market, as a hedge against dollar receivables. The resultant shift of the leads and lags in commercial payments against the dollar and in favor of the mark created a potentially dangerous situation. This situation became the subject of conversations on Friday, March 10, 1961, among officials of the German Federal Bank, Federal Reserve Bank of New York, and the U.S. Treasury. There emerged the decision to undertake on the following Monday, March 13, forward sales of marks in the New York market by the New York Federal Reserve Bank as agent for the U.S. Treasury, with the dual objective of providing an ample supply of forward marks as an alternative to anticipatory purchases of spot marks by foreigners and dollar borrowing by Germans and, in the process, of driving down the forward premium on the mark as closely as possible to the 1-percent level.

These forward sales of marks by the U.S. Treasury were undertaken under a "parallel" arrangement, generously suggested by the German Federal Bank, which agreed to supply the U.S. Treasury with marks (should they be needed) at the time the contracts matured, at the same rate as that at which the marks had been sold by the U.S. Treasury. In effect, the U.S. Treasury's forward commitments were entirely protected against any risk of loss. Forward operations undertaken under this arrangement were later supplemented by forward sales by the U.S. Treasury on the basis of \$100 million equivalent of German marks obtained by the United States under the \$587 million German debt repayment in April 1961.

Table 1 illustrates the scope and pattern of the Treasury's forward mark operations. From March 13 to the end of the month, the Treasury forcefully resisted the speculative inflow to Germany by selling over \$118 million equivalent of marks for delivery in 3 months. Market demand for forward marks then gradually declined, perhaps partly owing to the reassuring effect of official operations on so sizable a scale. But by mid-June the outstanding forward mark commitments of the U.S. Treasury had risen to \$340 million.

TABLE 1.—*Treasury forward operations in German marks, Mar. 13—Dec. 13, 1961*

[Dollar equivalent, in millions]

	Future commitments (beginning of month)	New sales (during month)	Maturing contracts not renewed (during month)	Future commitments (end of month)	Premium on 3-month forward mark (percent per annum, end of month)
March (13 to 31).....		118.7		118.7	1.47
April.....	118.7	104.4		223.1	1.59
May.....	223.1	78.4		301.5	1.39
June.....	301.5	52.6	-86.5	267.8	2.21
July.....	267.8	32.9	-98.1	202.6	1.45
August.....	202.6	12.7	-89.3	126.0	1.02
September.....	126.0	.3	-76.6	49.7	.88
October.....	49.7		-35.5	14.2	.76
November.....	14.2		-14.0	.2	.80
December (1 to 13).....	.2		-.2		1.00

As the first of the forward contracts began to mature, the tide turned and the spot dollar rate gradually rose off the floor to which it had been pinned for many months. The improvement in the spot dollar rate was attributable in part to a market demand for dollars required to pay the U.S. Treasury for the forward mark purchases previously contracted for. Coordinated intervention by the German Federal Bank and the U.S. Treasury in the spot mark market also helped to strengthen the dollar rate.

With the crisis of confidence more or less weathered, it seemed desirable to allow the forward premium on the mark to rise somewhat, thereby increasing the cost of forward cover and further dampening commercial hedging demand. As a consequence, the Treasury's outstanding balance of the forward mark commitments declined rapidly after mid-June as the daily rate of new sales fell far below maturing contracts. In September, in a market also strongly influenced by the Berlin crisis, forward sales were discontinued entirely as a normal flow of forward marks from private sources reappeared. By early December the Treasury's forward mark commitments had been fully liquidated.

By thus offsetting a large-scale flow of speculative funds that proved to be reversible within 9 months, the U.S. Treasury operations in forward marks clearly helped both the United States and Germany. The short-term capital outflow from the United States was held down, and the U.S. payments deficit thereby reduced, while the German Federal Bank could restrain its dollar accumulations from becoming too large and also prevent the German money market from being flooded with a heavy volume of liquid funds. More generally, the forward mark operation apparently calmed a badly shaken exchange market, which

needed time and the assurance of intergovernmental cooperation to recover confidence.

As previously mentioned, the U.S. Treasury had acquired, in April 1961, \$100 million in marks as part of a German Government debt payment totaling \$587 million. While about half of this mark balance was used to settle forward contracts maturing in the fall of 1961, the remainder was converted into dollars in September to make final payment to the U.S. lending agencies concerned.

The experience with the forward mark operation had proved sufficiently encouraging, however, to suggest that the U.S. Treasury might usefully acquire moderate amounts of spot marks when that currency temporarily weakened late in 1961. These mark acquisitions by the U.S. Treasury reached a total of approximately \$55 million equivalent and have been employed in several operations during the first half of 1962 to support the dollar rate during periods of temporary pressure. These operations have not only proved useful in producing the desired firming of the dollar rate but have also proved reversible. Later strengthening of the dollar rate has permitted replenishment of earlier drafts on the Treasury's mark balances.

Operations in Swiss francs

The second major exchange operation initiated by the U.S. Treasury during 1961 was in forward Swiss francs. The March 1961 revaluations of the German mark and Dutch guilder resulted in a burst of speculation on a similar revaluation of the Swiss franc and a heavy flow of short-term speculative funds to Switzerland. This influx created a serious problem of excessive liquidity on the Swiss money market while also raising the dollar exchange reserves of the Swiss National Bank far above traditional levels.

These dollar acquisitions by the Swiss National Bank could have been converted immediately into gold by purchases from the U.S. Treasury. But in the interests of international financial cooperation, the Swiss National Bank refrained from effecting such conversions in order to loan back to the Bank of England a large proportion of the dollar inflow to Switzerland.

There was in near prospect, however, the likelihood of a massive British Government drawing from the International Monetary Fund which would result in a liquidation of the short-term credits received by the Bank of England from the Swiss National Bank and other European central banks. Accordingly, the Swiss National Bank seemed likely to convert large amounts of surplus dollar holdings into gold unless some means could be found to stimulate an outflow of private funds from Switzerland.

The basic obstacle to such an outflow of private funds from Switzerland came from the lingering fears and hopes of many private individuals that the Swiss franc would somehow or other provide a safer haven than other currencies against a wide range of political, military, and financial risks. But it had become quite clear to both Swiss and U.S. central bank officials that the hot money inflow into Switzerland was disguising a significant deterioration in the basic balance of payments of Switzerland and that, when some recovery of confidence in currency parities reappeared, a cessation of this hot money inflow would result in a strengthening of the dollar against the Swiss franc and in drains on the gold and dollar reserves of the Swiss National

Bank. Thus, the piling up of hot money in Swiss commercial banks was essentially a temporary, reversible phenomenon that might properly be dealt with by compensatory action by the two central banks concerned.

After extensive discussions among officials of the U.S. Treasury, the New York Federal Reserve Bank, and the Swiss National Bank, it appeared that a useful start could be made in offsetting such temporary inflows of hot money by providing adequate incentives to the reexport of private investment funds from Switzerland on a hedged, or covered, basis. Partly because of speculative fears or hopes of a revaluation of the Swiss franc, the premium on the forward Swiss franc had risen to roughly $1\frac{7}{8}$ percent, at which levels it was prohibitively costly to cover short-term placements in New York, London, or other financial markets abroad.

Consequently, in July 1961 the U.S. Treasury agreed to supply through the agency of the Swiss National Bank forward Swiss francs to the market at rates sufficiently attractive to induce the Swiss commercial banks and other short-term investors to move funds into the dollar market. These forward operations were begun in a limited, experimental fashion on the basis of relatively small Swiss franc balances previously acquired by the U.S. Treasury.

With the emergence of the Berlin crisis in August 1961, however, the problem was complicated by a renewed flow of hot money to Switzerland, and the Treasury accordingly enlarged the scope of its forward operations. To provide a broader base for such operations, the Swiss National Bank agreed to provide a sizable line of credit in Swiss francs to the U.S. Treasury which could be drawn upon by issuance of 3-month certificates of indebtedness carrying a rate of $1\frac{1}{4}$ percent and denominated in Swiss francs. As the Treasury's forward commitments rose rapidly, it availed itself to its drawing rights to the extent of 200 million Swiss francs (\$46 million equivalent) in October 1961. By the end of November the Treasury's forward sales had reached \$152.5 million equivalent, which meant a roughly corresponding reduction in the dollar reserves of the Swiss National Bank and in Swiss gold purchases from the U.S. Treasury.

During December the Treasury's forward commitments declined somewhat (\$15 million of maturing contracts were paid off by the Treasury rather than renewed). This happened largely because Swiss commercial banks wanted to increase their franc assets for year-end window dressing. New contracts of \$9 million equivalent were undertaken at the end of January 1962. And in January and February all contracts were rolled over at maturity, so that by the end of February the Treasury's outstanding forward franc market commitments amounted to \$146.5 million equivalent.

In February 1962 the Swiss franc began to weaken, as had been expected with Switzerland's large current-account deficit and the tapering off of the short-term capital inflow. In these circumstances, the Swiss National Bank had to supply dollars to the market and, by the end of May, the New York Federal Reserve Bank as agent of the U.S. Treasury had sold \$139 million to the Swiss National Bank.

If the U.S. Treasury had elected to meet their dollar requirements of the Swiss National Bank by accepting Swiss francs in payment, the resultant increase in the Treasury's franc balances would have been adequate to liquidate nearly all of the forward Swiss franc market

contracts outstanding. But a rapid liquidation of these forward contracts would have tended to re-create too much liquidity on the Swiss money market. Accordingly, the Swiss National Bank suggested that the U.S. Treasury might accept gold rather than Swiss francs in payment of part of the Swiss dollar requirements. Swiss gold sales to the U.S. Treasury amounted to \$74 million. The remaining \$65 million required by the Swiss were paid for in Swiss francs.

The Swiss franc balances were gradually used to liquidate \$55 million of maturing forward contracts, which by the end of May 1962 were less than \$91.5 million equivalent outstanding. The \$46 million certificates of indebtedness issued to the Swiss National Bank in the autumn of 1961 were also fully liquidated, as the Treasury found its forward position could be sustained on a smaller cash reserve. In effect, the program of forward sales of Swiss francs, initiated by the U.S. Treasury in July 1961, proved to be a self-liquidating operation, as the swing developing in the Swiss payments position would have permitted nearly complete liquidation of the forward operation within a matter of 10 months. And the forward operations helped both the United States and Switzerland by damping U.S. gold losses from speculative money movements while relieving the Swiss market of too much liquidity.

Unfortunately the pendulum began to swing back. During the latter part of May 1962, capital funds again flowed to Switzerland in response to speculation caused by the Canadian devaluation and by the subsequent sharp decline of the New York stock market. But meanwhile the financial resources and market techniques available to the U.S. Government had been strongly reinforced by the entrance of the Federal Reserve System into the foreign exchange field. As subsequently outlined, a coordinated program involving the U.S. Treasury, the Federal Reserve System, and the Swiss National Bank succeeded in minimizing the impact of potentially dangerous speculative pressures.

Operations in Netherlands guilders

After the revaluation of the Netherlands guilder on March 7, 1961, the premium on the 3-month forward guilder rose to well over 2 percent and remained there until the end of April. The premium encouraged a further inflow of short-term funds into the Netherlands and deterred any covered outflow.

In this context, early in May the United States and Netherlands authorities discussed whether the United States should intervene in the forward guilder market to reduce the guilder premium to levels more consistent with interest rates on dollar and guilder investments. These discussions between the United States and Netherlands authorities produced their first tangible results in July, when the Netherlands Bank, whose dollar reserves were to be depleted by a large British IMF guilder drawing (for conversion into dollars) in August, agreed to sell spot guilders to the United States and to provide for U.S. investment of these guilders in Dutch Treasury bills. It was agreed that it would be useful for the treasury to acquire modest guilder balances for possible use in exchange operations in the future. Accordingly, the Netherlands Bank sold \$15 million equivalent of guilders to the U.S. Treasury during September.

As expectations of another revaluation of the guilder withered away, the forward guilder premium declined to more normal levels. But

toward the end of 1961, rumors questioning the stability of exchange parities and the beginning of continental commercial bank repatriations of funds for year-end, window-dressing operations induced a renewed rise in both spot and forward guilder rates. By December 20 the premium on the 3-month forward guilder was again over 2 percent (though moving erratically) and was clearly out of line with comparative interest rates.

Although the premium declined somewhat after the turn of the year, the U.S. Treasury concluded that it might usefully test the market by a small offering of forward guilders which might succeed in nudging the rate down to a more normal level. After further negotiations it was agreed that the Netherlands Bank would sell forward guilders in the market for the Treasury's account.

The sales were first made in January 1962 and reached \$20.8 million equivalent by early February. As the availability of forward cover stimulated Netherlands investment demand for short-term placements in New York and other financial markets, the spot guilder rate weakened to about par and, in the process, enabled the U.S. Treasury to acquire more spot guilders from the Netherlands Bank against dollars.

The forward operations were terminated on February 13 as the Netherlands money market had become less liquid, and the U.S. Treasury later liquidated each contract at maturity. The remaining guilder balances of the U.S. Treasury were used to intervene occasionally in the market to slow down a strong rise of the guilder spot rate during the spring months as a result of a tightening of liquidity in the Netherlands financial market. Also a sizable foreign exchange inflow was expected as a result of the Philips Lamp stock issue.

Operations in Italian lire

A continuing surplus in Italy's balance of payments has made the Italian lira one of the strongest continental currencies. From mid-April 1961 until the present the lira has usually remained at its upper limit against the dollar.

In these circumstances, in late 1961 discussions began on the possibility of U.S. Treasury operations in the lira market. In January 1962 it was agreed that the Treasury would take over a substantial block of forward lire contracts from the Italian foreign exchange office and that the Bank of Italy would simultaneously extend to the Treasury a \$150 million line of credit in lire to support such spot as well as forward operations in lire as might appear desirable.

The Treasury made the first drawing on this line of credit on January 26, 1962, when it issued a 3-month certificate of indebtedness for the equivalent of \$25 million in lire. It made a second drawing of \$50 million in March, and a third drawing of \$75 million in August.

Both spot and forward operations by the United States Treasury in lire are continuing and have lessened the accumulation of dollar reserves during the recent seasonal inflows to Italy.

BEGINNING OF FEDERAL RESERVE OPERATIONS

While the exchange operations undertaken by the Treasury with the limited resources of its stabilization fund had yielded encouraging results, Federal Reserve officials—with the full concurrence of the Treasury—considered whether it might not also be desirable to reactivate

Federal Reserve exchange operations. After many months study, the Federal Open Market Committee on February 13, 1962, authorized open market transactions in foreign currencies.²

Currencies involved

Under this authorization, the special manager of the Open Market Account for foreign currency operations received Committee approval to inaugurate operations by purchasing from the stabilization fund at market rates the following foreign currencies in order to open accounts with the central banks responsible for these currencies and develop procedures for future operations (table 2).

TABLE 2.—Federal Reserve purchases of foreign currencies from the U.S. Treasury

Currency	Dollar equivalent (in millions)
German marks.....	32.0
Swiss francs.....	.5
Netherlands guilders.....	.5
Italian lire.....	.5

Accounts had previously been opened, and maintained for some years with more or less nominal balances, with the central banks of Canada, Great Britain, and France.

With the authorization of the Committee, the special manager proceeded to negotiate a series of reciprocal credit, or swap, facilities with seven foreign central banks and with the Bank for International Settlements. The amounts and dates of these swap arrangements are shown in table 3.

TABLE 3.—Federal Reserve reciprocal currency agreements

Other party to agreement	Amount (in millions of dollars)	Date (of original agreement)	Term (in months)
Bank of France.....	50	Mar. 1, 1962	3
Bank of England.....	50	May 31, 1962	3
Netherlands Bank.....	50	June 14, 1962	3
National Bank of Belgium.....	50	June 20, 1962	6
Bank of Canada.....	250	June 26, 1962 ¹	3
Bank for International Settlements ²	100	July 16, 1962	3
Swiss National Bank.....	100	.....do.....	3
German Federal Bank.....	50	Aug. 2, 1962	3
Total for all banks.....	700		

¹ Announced on Sunday, June 25.

² In Swiss francs.

Mechanics of swap arrangements

The details of the swap arrangements varied somewhat from agreement to agreement, reflecting differing institutional arrangements and operational procedures among the central banks. However, certain general principles ran throughout all of the agreements. They may be summarized as follows:

1. A swap constitutes a reciprocal credit facility under which a central bank agrees to exchange on request its own currency for the

² The text of the authorization appears in the appendix, pp. 9-10.

currency of the other party up to a maximum amount over a limited period of time, such as 3 months or 6 months.

2. If such a standby swap between the Federal Reserve and the Bank of England, for example, were to be drawn upon by the Federal Reserve, the Federal Reserve would credit the dollar account of the Bank of England with \$50 million at a rate of, say, \$2.80 to the pound, while obtaining in exchange a credit on the books of the Bank of England of about £18 million. Both parties would agree to reverse the transaction on a specified date, say, within 3 months, at the same rate of exchange, thus providing each with forward cover against the remote risk of a devaluation of either currency.

3. The foreign currency obtained by each party as a result of such cross credits to each other's accounts would, unless disbursed in exchange operations, be invested in a time deposit or other investment instrument, earning an identical rate of interest of, say, 2 percent and subject to call on 2 days' notice.

4. After consultation with the other, each party would be free to draw upon the foreign currency acquired under the swap to conduct spot transactions or meet forward exchange obligations.

5. Each swap arrangement is renewable upon agreement of both parties.

Use of swaps

Use of these various swap arrangements has followed a varied pattern. The \$250 million swap with the Bank of Canada was immediately drawn upon through a cross-crediting of Canadian and United States dollars as part of a Canadian stabilization program. The Canadian Government also received financial assistance from the International Monetary Fund, the Export-Import Bank, and the Bank of England.

In the swaps with the Bank of France, the Bank of England, and the National Bank of Belgium, in amounts of \$50 million each, the standby facility was immediately drawn upon by the Federal Reserve in order to test communications, investment procedures, and other operational arrangements. In both the French and British swaps, no occasion has arisen for either party to use the proceeds of the swap in exchange operations. Consequently, after one renewal on June 1, the swap with the Bank of France was liquidated in advance of maturity on August 2 and placed on a standby basis. The swap with the Bank of England, which matured on August 30, was similarly placed on a standby basis.

The swaps of \$100 million each with the Swiss National Bank and the Bank for International Settlements were negotiated as standby facilities but with anticipation of any early necessity for their use to mop up a speculative flow of hot money to Switzerland in June and early July of 1962. Similarly, a standby swap with the Netherlands Bank has been actively utilized to mop up temporary flows of funds to the Netherlands. Finally, the \$50 million swap with the German Federal Bank was negotiated as a standby facility and no drawings have been effected to date.

Swiss francs.—As previously noted, the standby swap arrangements of \$100 million each negotiated in mid-July by the Federal Reserve with the Swiss National Bank and the Bank for International Settlements anticipated an early drawing on these swaps to mop up surplus

dollars taken in by the Swiss National Bank. Under these swap arrangements, the Federal Reserve drew, during July and August, \$60 million of Swiss francs under its swap arrangement with the Bank for International Settlements and \$50 million equivalent in Swiss francs under the swap with the Swiss National Bank. The total proceeds of \$110 million in Swiss francs were immediately employed to buy back an equivalent amount of dollars on the books of the Swiss National Bank.

During the same period, the U.S. Treasury enlarged somewhat its forward operation in Swiss francs and thereby absorbed an additional amount of dollars held by the Swiss National Bank. As a result of these operations, the dollar holdings of the Swiss National Bank were substantially reduced, and the bank purchased no more than \$50 million of gold from the United States during a period of intense speculation following the June decline in the New York and other stock exchanges.

Federal Reserve drawings under the Swiss franc swaps also indirectly served to absorb excess liquidity on the Swiss money market since the Swiss francs supplied under the swap by the Bank for International Settlements came from deposits of Swiss commercial banks. The Swiss National Bank similarly absorbed Swiss francs from the market by various forward operations involving investments by Swiss commercial banks in U.S. Treasury bills on a covered basis. Subsequently, the speculative fever subsided, the dollar strengthened significantly against the Swiss franc, and the Federal Reserve has already begun to acquire Swiss franc balances in anticipation of an eventual liquidation of the drawings under these two swaps.

Netherlands guilders and Belgian francs.—Similarly, a heavy influx of funds into the Netherlands following the stock market declines in June was absorbed by drawings upon the Federal Reserve swap with the Netherlands Bank, combined with a resumption of Treasury forward operations in Dutch guilders. Sizable foreign payments for certain special purposes by the Netherlands have since reduced the dollar holdings of the Netherlands Bank and thereby enabled the Federal Reserve to completely repay drawings under the swap, which has now reverted to a standby facility.

Here again, U.S. Government exchange operations have succeeded in dealing with what proved to be a reversible flow of funds and, as a result, the Netherlands Bank refrained entirely from purchases of gold from the United States during this difficult period. Intervention on a small scale in Belgian francs by drafts upon the swap with the National Bank of Belgium has served a similar purpose, with subsequent repurchases of Belgian francs by the Federal Reserve as the dollar strengthened.

Canadian dollars.—The \$250 million Federal Reserve swap with the Bank of Canada on June 25, 1962, played an important role in a broad program of international financial cooperation designed to reinforce the Canadian Government's efforts to defend the Canadian dollar. Between January 1 and June 25, about \$900 million, or 44 percent of Canada's gold and dollar reserves of \$2,056 million were swept away by a mounting balance-of-payments deficit which threatened to force the Canadian dollar of its newly established parity. If this had happened, it would have been an extremely serious setback, not only to

Canada but to the entire international financial system of fixed parities, and might easily have touched off a worldwide burst of speculation against other currencies, including the U.S. dollar.

In this atmosphere of emergency, a combined program of \$1,050 million was put together within 4 days. This included a \$300 million Canadian drawing upon the fund, a \$250 million swap between the Federal Reserve and the Bank of Canada, a \$100 million credit to the Bank of Canada from the Bank of England, and a \$400 million standby credit to the Canadian Government by the Export-Import Bank. Announcement of financial assistance on this massive scale, coupled with a Canadian Government announcement of fiscal and other measures of restraint, immediately broke the speculative wave. Between June 25 and the end of August, Canada recovered more than \$500 million of its earlier reserve losses. Once again, the potentialities of central bank and intergovernmental financial cooperation in defending currency parities against essentially reversible flows of speculative funds was demonstrated.

The great bulk of the exchange operations undertaken by the Federal Reserve for its own account have involved transactions directly with foreign central banks, rather than in the exchange market. The foreign central banks have continued their policy of active direct participation in the market, and their activity has been supplemented from time to time by appropriate Treasury operations. The Federal Reserve has not thus far undertaken any forward operations in the exchange markets for its own account. Spot operations in support of the dollar in the markets have so far been limited to moderate sales of German marks, sometimes accompanied by similar sales of marks by the Treasury. These transactions have proved fully reversible, with both the Federal Reserve and Treasury subsequently replenishing their mark holdings as the dollar strengthened.

COORDINATION OF TREASURY AND FEDERAL RESERVE EXCHANGE OPERATIONS

Treasury and Federal Reserve exchange operations are continuously coordinated by frequent telephone communications each day between Treasury and Federal Reserve officials concerned with market operations. At 2:30 p.m. each day the foreign exchange trading desk in the foreign department of the Federal Reserve Bank of New York provides a full and detailed report over a Treasury and Federal Reserve telephone conference circuit, of exchange rates, market conditions, and operations undertaken during the day by both the Federal Reserve and the Treasury stabilization fund. The very fact that the special manager of the System account is an officer of the Federal Reserve Bank of New York which also conducts exchange operations on behalf of the Treasury eliminates, insofar as is humanly possible, any risk of an inadvertent clash of operations by the two agencies and greatly facilitates the task of insuring a coordination of both Federal Reserve and Treasury operations with the foreign central banks concerned.

With both agencies pursuing identical policy objectives and employing a single instrument of operations, it has proved possible during recent months to carry out an effective meshing of Federal Reserve and Treasury operations in several European currencies.

APPENDIX

AUTHORIZATION REGARDING OPEN MARKET TRANSACTIONS IN FOREIGN CURRENCIES

I. ROLE OF FEDERAL RESERVE BANK OF NEW YORK

The New York bank shall execute all transactions pursuant to this authorization (hereafter sometimes referred to as transactions in foreign currencies) for the System Open Market Account, as defined in the regulation of the Federal Open Market Committee.

II. BASIC PURPOSES OF OPERATIONS

The basic purposes of System operations in and holdings of foreign currencies are:

- (1) To help safeguard the value of the dollar in international exchange markets;
- (2) To aid in making the existing system of international payments more efficient and in avoiding disorderly conditions in exchange markets;
- (3) To further monetary cooperation with central banks of other countries maintaining convertible currencies, with the International Monetary Fund, and with other international payments institutions;
- (4) Together with these banks and institutions, to help moderate temporary imbalances in international payments that may adversely affect monetary reserve positions; and
- (5) In the long run, to make possible growth in the liquid assets available to international money markets in accordance with the needs of an expanding world economy.

III. SPECIFIC AIMS OF OPERATIONS

Within the basic purposes set forth in section II, the transactions shall be conducted with a view to the following specific aims:

- (1) To offset or compensate, when appropriate, the effects on U.S. gold reserves or dollar liabilities of those fluctuations in the international flow of payments to or from the United States that are deemed to reflect temporary disequilibrating forces or transitional market unsettlement;
- (2) To temper and smooth out abrupt changes in spot exchange rates and moderate forward premiums and discounts judged to be disequilibrating;
- (3) To supplement international exchange arrangements such as those made through the International Monetary Fund; and
- (4) In the long run, to provide a means whereby reciprocal holdings of foreign currencies may contribute to meeting needs for international liquidity as required in terms of an expanding world economy.

IV. ARRANGEMENTS WITH FOREIGN CENTRAL BANKS

In making operating arrangements with foreign central banks on system holdings of foreign currencies, the New York bank shall not commit itself to maintain any specific balance, unless authorized by the Federal Open Market Committee.

The bank shall instruct foreign central banks regarding the investment of such holdings in excess of minimum working balances in accordance with section 14(e) of the Federal Reserve Act.

The bank shall consult with foreign central banks on coordination of exchange operations.

Any agreements or understandings concerning the administration of the accounts maintained by the New York bank with the central banks designated by the Board of Governors under section 214.5 of regulation N (as amended) are to be referred for review and approval to the committee, subject to the provision of section VIII, paragraph 1, below.

V. AUTHORIZED CURRENCIES

The New York bank is authorized to conduct transactions for system account in such currencies and within the limits that the Federal Open Market Committee may from time to time specify.

VI. METHODS OF ACQUIRING AND SELLING FOREIGN CURRENCIES

The New York bank is authorized to purchase and sell foreign currencies in the form of cable transfers through spot or forward transactions on the open market at home and abroad, including transactions with the stabilization fund of the Secretary of the Treasury established by section 10 of the Gold Reserve Act of 1934 and with foreign monetary authorities.

Unless the bank is otherwise authorized, all transactions shall be at prevailing market rates.



87th Congress }
2d Session }

JOINT COMMITTEE PRINT

FACTORS AFFECTING THE UNITED STATES
BALANCE OF PAYMENTS

MATERIALS PREPARED FOR THE
SUBCOMMITTEE ON INTERNATIONAL
EXCHANGE AND PAYMENTS
OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

Part 6
LONGRUN PROSPECTS
CAPITAL MOVEMENTS
AMERICAN DOLLARS ABROAD



Printed for the use of the Joint Economic Committee

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WASHINGTON : 1962

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LETTERS OF TRANSMITTAL

DECEMBER 6, 1962.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress are four in a series of papers prepared by outside consultants for the consideration of our Subcommittee on International Exchange and Payments in connection with its study of "Factors Affecting the United States Balance of Payments."

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

DECEMBER 5, 1962.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith are four additional study papers in the series assembled by the Subcommittee on International Exchange and Payments on the general subject of "Factors Affecting the United States Balance of Payments."

The papers in this group make up part 6 of the series and deal with "Longrun Prospects," "Capital Movements," and "American Dollars Abroad." They have been prepared by experts from the universities, research and international organizations, and are a part of the subcommittee's broadly based study of the need and means for reducing the deficit in the U.S. balance of payments, as well as appraising the opportunities for international trade and payments cooperation and, the usefulness of a policy of relatively high domestic interest rates in stemming the recent dollar outflow.

The materials are presented in advance of the subcommittee's hearings in accordance with the Joint Economic Committee practice of providing members of the committee and the participating panelists an opportunity to examine thoroughly the analyses in preparation for discussions at public hearings.

Prof. Don Humphrey of the Fletcher School of Law and Diplomacy, Tufts University, has been acting as a consultant to the subcommittee and has had major staff responsibility in arranging for these expert study papers and in planning the subcommittee's study.

Sincerely,

HENRY S. REUSS,
*Chairman, Subcommittee on International Exchange and
Payments.*

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THE LONGRUN PROSPECTS FOR THE U.S. BALANCE
OF PAYMENTS

By

EDWARD M. BERNSTEIN
CONSULTING ECONOMIST, WASHINGTON, D.C.

THE LONGRUN PROSPECTS FOR THE U.S. BALANCE OF PAYMENTS

I. U.S. PAYMENTS PROBLEM

With the exception of 1957, the balance of payments of the United States has been in deficit since 1950, using the definitions of the Department of Commerce. The payments deficit was relatively moderate from 1950 to 1957, averaging about \$1.3 billion a year. It was substantially larger from 1958 to 1960, ranging from \$3.3 billion to \$3.9 billion. In 1961, considerable progress was made in reducing the payments deficit and, despite some adverse factors, it declined to \$2.5 billion. Further progress is being made and in the first three quarters of 1962, the payments deficit was down to \$1.4 billion, partly because of extraordinary receipts from prepayments of debts to the U.S. Government by France and Italy.

While the improvement in the U.S. balance of payments in the past 2 years is encouraging, particularly as this occurred during a period of cyclical expansion in the United States, the payments deficit is still large and the pressure on U.S. reserves is increasing. From 1950 to 1957, net sales of gold by the U.S. Treasury averaged \$260 million a year, and the increase in foreign short-term and liquid dollar assets, official and private, averaged just over \$1 billion a year. From 1958 to 1961, however, net gold sales averaged \$1.4 billion a year, and the increase in foreign short-term and liquid dollar assets averaged \$1.9 billion a year. In the first three quarters of 1962, net gold sales amounted to about \$870 million, although this was partly offset by U.S. accumulation of \$330 million in reserves of convertible currencies. Foreign short-term and liquid dollar assets increased by about \$900 million in the same period of 1962.

For most countries, the measures necessary to solve a balance-of-payments problem, however difficult, are clear cut—that is, to restrain the demand for imports and to encourage an inflow of short-term funds. The United States must be careful in using such measures, because it is a prime mover in the world economy, and its own economy is lagging. A reduction in aggregate demand to restrain imports will depress the U.S. economy and cause difficulties for other countries dependent on exports to the United States to keep their balance of payments in order. Nor can the United States eliminate its payments deficit by attracting a large influx of funds from other financial centers through a sharp rise in interest rates. The high interest rates would hamper the growth of the U.S. economy, and the influx of funds would shift the payments problem to other countries. The solution to the U.S. payments problem must be found in an environment of expanding

NOTE.—Mr. Bernstein was formerly Assistant to the Secretary of the Treasury and until January 1958 director of research and statistics of the International Monetary Fund. In 1944, he was executive secretary and chief technical adviser of the U.S. delegation at the Bretton Woods Conference.

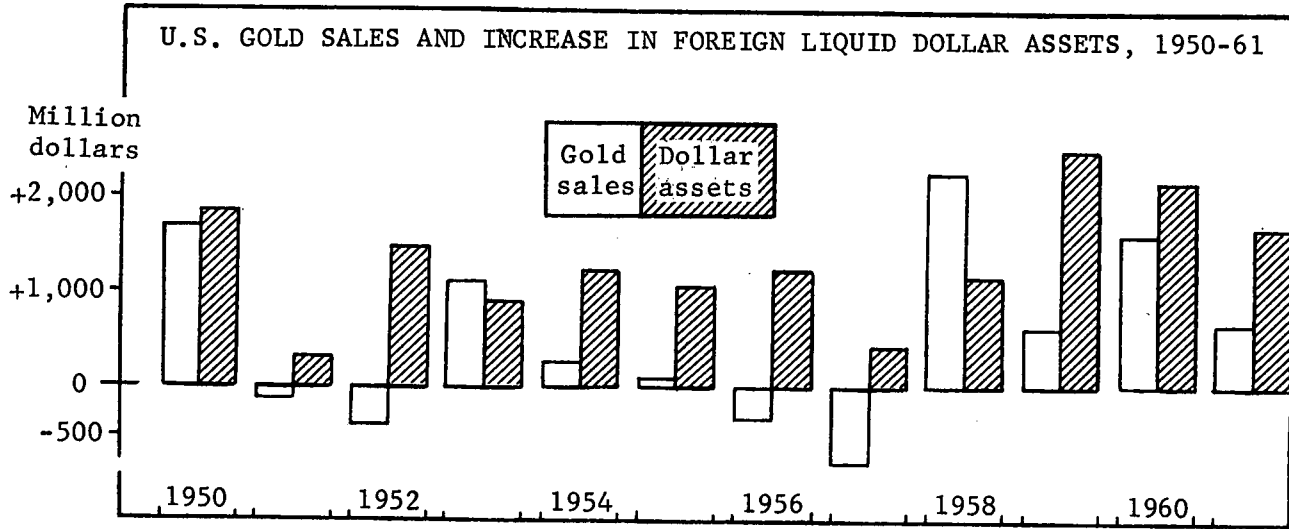


CHART I.—U.S. gold sales and increase in foreign liquid dollar assets, 1950-61

world trade supported by a high level of economic activity in this country.

The United States is the leader of the free world. This imposes on it the necessity of incurring large expenditures for defense overseas and for aid to the underdeveloped countries. These expenditures are of a political or quasi-political character. They cannot be based on economic considerations, nor do they respond to ordinary economic measures. It is possible, however, to take steps to minimize the adverse impact of such expenditures on the U.S. balance of payments. Furthermore, it should be possible for the high-income countries to bear a larger share of the common burden of defense and aid. Even so, the United States must earn sufficient net foreign-exchange receipts from private transactions, current and capital, to meet the balance-of-payments costs of these expenditures.

The U.S. payments problem can be better understood only as part of a long postwar adjustment designed to restore a pattern of international payments under which the world economy can prosper and grow. This has involved the rebuilding of the productive capacity of Western Europe and Japan, the strengthening of their competitive position through the depreciation of their currencies in 1949, the resumption of their important role in world trade, and the establishment of convertibility of their currencies. The international economic policies of the United States have been directed to the attainment of these objectives since 1946. These policies have been remarkably successful as indicated by the high level of production and trade, the balance-of-payments surplus, and the greatly increased monetary reserves of Western Europe and Japan.

It is not surprising that the adjustment that has been going on for so many years should have resulted in a great shift in the pattern of international payments. This has been a necessary and desirable shift, away from excessive dependence on U.S. exports financed by U.S. aid. The fact that it has resulted in a payments deficit for the United States would not be a matter for concern if the deficit were not so large and so persistent. Within the limits imposed by its economic and political position, the United States has taken measures to strengthen its balance of payments. This has involved a greater dependence on natural corrective forces, both in the United States and abroad, than a country with smaller reserves could have afforded. Neither the U.S. nor the world economy, however, can be indifferent to a continuation of a large payments deficit in this country.

The postwar adjustment is apparently coming to an end, although it may continue for a year or two more. In the meantime, the long-run strength of the U.S. international economic position is asserting itself. An analysis of three important sectors of the U.S. balance of payments shows that there are forces acting on U.S. trade, U.S. capital outflow, and U.S. Government expenditures which may be expected to eliminate the payments deficit within the next 2 years. It is still essential, however, for the United States and other countries to follow policies that will make possible the maintenance of a strong pattern of international payments and that will facilitate the solution to payments difficulties in the future.

II. U.S. COMPETITIVE POSITION IN WORLD TRADE

U.S. exports

The United States provides by far the largest amount of exports in world trade. In 1961, its exports, excluding transfers under military grants, amounted to \$19.9 billion. In the first three quarters of 1962, U.S. exports were at a seasonally adjusted annual rate of \$21.1 billion. The exports of the United States comprise a large and varied collection of goods, reflecting the magnitude and diversity of the U.S. economy. There is good reason to expect that the world's need for U.S. exports will continue to grow and that the United States will be able to meet this demand at prices competitive with those of other countries.

TABLE 1.—*U.S. exports as percent of world total, 1950-62*

[In millions of dollars]

Year	World total	U.S. exports	Percent	Year	World total	U.S. exports	Percent
1950.....	56,245	10,000	17.8	1957.....	99,625	19,518	19.6
1951.....	75,925	13,976	18.4	1958.....	94,587	16,377	17.3
1952.....	71,947	13,208	18.4	1959.....	100,663	16,416	16.3
1953.....	71,255	12,271	17.2	1960.....	112,851	19,635	17.4
1954.....	75,426	12,860	17.0	1961.....	117,880	20,102	17.1
1955.....	83,334	14,302	17.2	1962 ¹	123,600	21,150	17.1
1956.....	92,193	17,345	18.8				

¹ Annual rate, first 2 quarters of 1962; U.S. exports, seasonally adjusted. U.S. and world total exclude exports under military grants.

Source: International Financial Statistics, November 1962; Economic Indicators, October 1962.

The payments difficulties of the United States are not caused by a lag in exports, although it is necessary to increase exports as part of a broad program to strengthen the U.S. balance of payments. As a share of total world trade, U.S. exports, excluding transfers under military grants, have been fairly stable since 1953. With the exception of 1956-57, when they were unusually large, and 1959, when they were unusually small, U.S. exports have tended to be about 17 percent of the world total throughout the 10 years from 1953 to 1962. United States exports have not increased as much, proportionately, as those of continental Western Europe and Japan; they have increased more than the exports of the United Kingdom and Canada. The United States no longer dominates world markets as it did from 1946 to 1951. As a practical matter, one purpose of the postwar adjustment in trade was to reduce the excessive dependence of the world on exports from the United States financed by U.S. aid.

The deterioration of the competitive position of the United States is said to be revealed by the sharp decline in its share of exports of manufactures. In 1950, the United States supplied about 27.3 percent of the exports of manufactures by the leading industrial countries. This share fell steadily to 21.3 percent in 1959. The principal cause of the decline was the recovery of production in continental Western Europe and Japan and the resumption of their traditional place in world markets. This adjustment is coming to an end. From 1959 to 1962, the U.S. share of exports of manufactures has been almost constant at about 21 percent of the total for the leading industrial countries. It should be noted that while the U.S. share of exports of manufactures of the leading industrial countries declined, the dollar value of such exports more than doubled from 1950 to 1962.

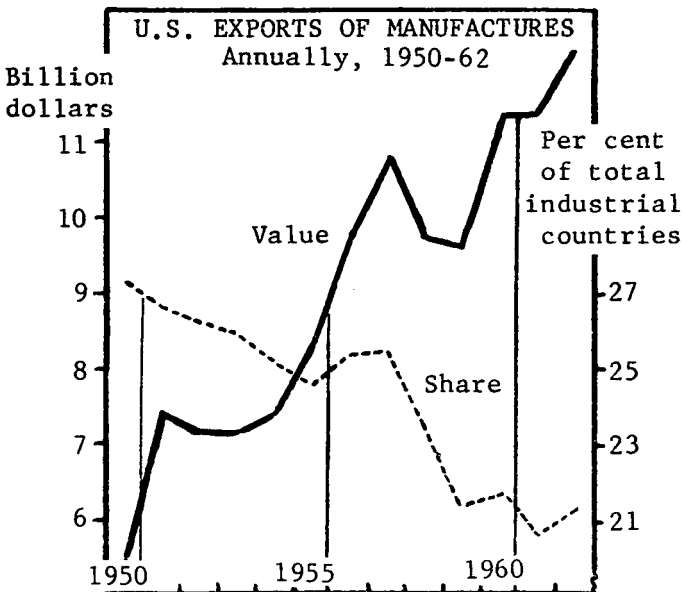


CHART II.—U.S. exports of manufactures, annually, 1950-62

The uneven inflation during and immediately after the war resulted in a much higher level of prices and costs in nearly all of Western Europe than in the United States. Before European countries could compete more effectively with the United States in world markets, it was necessary for them to reduce the level of their dollar prices. This major readjustment in relative prices was accomplished through the devaluation of all Western European currencies, except the Swiss franc, in terms of the dollar in 1949. While inflation continued to press on costs in the United States and in Europe in the 1950's, the effect of these pressures on prices in Europe was held down by the rapid increase in production and in productivity. On the whole, there was probably some tendency for prices of manufactured export goods to rise more in the United States than in Europe from about 1954 to 1959.

Now that the reconstruction of their productive facilities has been completed, the growth in industrial production in Western Europe will tend to be slower. With its efficient economy, the United States should be able to match the increase in productivity in Western Europe in the future, as it has, in fact, since 1958. Furthermore, the high level of production and employment in Europe is being accompanied by a much greater rise in wage rates, so that costs of production in manufacturing are apparently rising more in European countries than in the United States. The appreciation of the mark and the guilder in 1961 has also facilitated the adjustment of relative costs. Inevitably, the greater rise in European costs will affect the prices of their exports of manufactured goods. With the end of inflationary pressures in this country, and with the greater discipline now evident in U.S. wage policy, the United States should be able to strengthen the competitive position of its exports of manufactures during the next few years.

378 FACTORS AFFECTING THE U.S. BALANCE OF PAYMENTS

TABLE 2.—Output, earnings, and export prices in manufacturing, 1950–61

[1958=100]

	Output per hour				Hourly earnings ¹				Export prices ²			
	United States	United Kingdom	Germany	France	United States	United Kingdom	Germany	France	United States	United Kingdom	Germany	France
1950.....	82	88	69	63	69	59	56	-----	79	77	75	79
1955.....	95	97	89	79	88	85	79	73	90	92	93	98
1959.....	106	105	108	102	104	104	105	106	102	100	99	91
1960.....	109	110	114	106	107	113	114	115	104	103	101	96
1961.....	113	112	117	110	110	120	126	123	106	104	108	96
1961:												
1st quarter.....	111	112	121	107	109	-----	121	120	105	104	104	96
2d quarter.....	115	113	117	112	110	119	123	122	106	104	108	96
3d quarter.....	115	112	114	108	110	-----	128	125	106	104	110	97
4th quarter.....	115	110	116	112	112	121	131	127	108	104	110	97
1962:												
1st quarter.....	118	111	121	117	113	-----	135	131	108	105	112	96
2d quarter.....	117	114	123	121	113	124	139	134	107	105	112	-----

¹ Hourly earnings are in local currencies, for manufacturing in the United States and the United Kingdom, for all industries in Germany, and for manufacturing, construction, and distribution in France.

² Export prices are adjusted for changes in exchange rates and represent an index of dollar prices for each country.

Source: National Institute Economic Review, London, November 1962, p. 59.

U.S. imports

A deterioration in the competitive position of the United States in world trade should manifest itself in a rise in imports relative to the gross national product or to domestic expenditures on commodities. As the United States has relatively low tariffs and few quantitative re-

TABLE 3.—U.S. imports, gross national product, and commodity sales, 1950–62

Year	Imports (million dollars)	GNP (billion dollars)	Imports as percent of GNP	(Commodity sales (billion dollars) ¹)	Imports as percent of commodity sales
1950.....	9, 108	284. 6	3. 20	155. 1	5. 87
1951.....	11, 202	329. 0	3. 40	170. 0	6. 59
1952.....	10, 838	347. 0	3. 12	167. 6	6. 47
1953.....	10, 990	365. 4	3. 01	174. 3	6. 31
1954.....	10, 354	363. 1	2. 85	170. 4	6. 08
1955.....	11, 527	396. 5	2. 90	193. 0	5. 97
1956.....	12, 804	419. 2	3. 05	202. 2	6. 33
1957.....	13, 291	442. 8	3. 00	207. 4	6. 41
1958.....	12, 951	444. 5	2. 91	199. 1	6. 50
1959.....	15, 315	452. 7	3. 17	223. 1	6. 83
1960.....	14, 723	503. 4	2. 92	227. 9	6. 46
1961.....	14, 514	518. 7	2. 80	226. 3	6. 41
1962 ²	16, 405	550. 8	2. 98	240. 7	6. 82

¹ Commodity sales equal consumer expenditures on durable and nondurable goods, producers' purchases of durable equipment and investment in additions to nonfarm inventories.

² Annual rate, seasonally adjusted, 1st 3 quarters of 1962. The data on U.S. imports are not adjusted to make them comparable to the balance-of-payments figures of previous years and probably overstate U.S. imports to some extent.

Source: Business Indicators, November 1962; International Financial Statistics, November 1962;

strictions, a tendency for prices to rise more in the United States than in other leading countries would be expected to lead to a considerable increase in the propensity to import. This would be particularly true with the large rise of European production and exports. In fact, there are no indications that U.S. imports have risen relative to the gross national product. On the contrary, since 1951 the ratio of imports to the gross national product has had a downward trend and in 1961, when there was a recession, the ratio was the lowest of the postwar period. In 1962, the ratio of imports to the gross national product rose again, but this is entirely a cyclical phenomenon.

The lower ratio of imports to the gross national product in recent years probably reflects two separate factors. One is the steady decline in the prices of basic commodities which constitute a large part of U.S. imports. The second is the continued rise in the proportion of the gross national product in the form of services whose import content is considerably less than that of commodities. As a proportion of gross expenditures on commodities, imports have tended to be fairly constant in recent years. It would have been expected that with the greater availability of manufactured goods from Western Europe, imports would have risen relative to expenditures on domestic goods. The behavior of U.S. imports in recent years does not support the view that the competitive position of the United States has deteriorated. Even where imports increased considerably, for example, of European automobiles, there is reason to believe that price was a minor factor.

In fact, the trade surplus of the United States has increased markedly in recent years. Exports, excluding transfers under military grants, exceeded imports by \$4.8 billion in 1960 and by \$5.5 billion in 1961. Although 1962 has been a year of cyclical expansion, when the trade surplus generally declines considerably, exports are expected to exceed imports by more than \$5 billion. By contrast, the trade surplus averaged less than \$2 billion a year from 1950 to 1955. It is true that a large part of U.S. exports, about \$2.2 billion in 1961, is financed by U.S. aid. This was equally true in the early 1950's. Directly and indirectly, the aid component of U.S. exports is proportionately lower now than it was 10 years ago.

A decisive test of the capacity of the United States to compete with Western Europe is the behavior of U.S. exports and imports to and from that major trading area. U.S. imports from Western Europe have, of course, risen steadily since 1950 as the capacity of Western Europe to produce and export has increased. The principal factor in the increase of U.S. imports has been the greater availability of supplies rather than lower relative prices. At the same time, U.S. exports to Western Europe have increased by an even greater amount. The trade surplus of the United States with Western Europe is not as large as it was in 1949, when U.S. aid-financed exports were of predominant importance. It has been considerably larger in recent years than from 1950 to 1955. Provided European markets remain prosperous and are open to U.S. exports on liberal terms, the strong trade position of the United States in this region should be maintained.

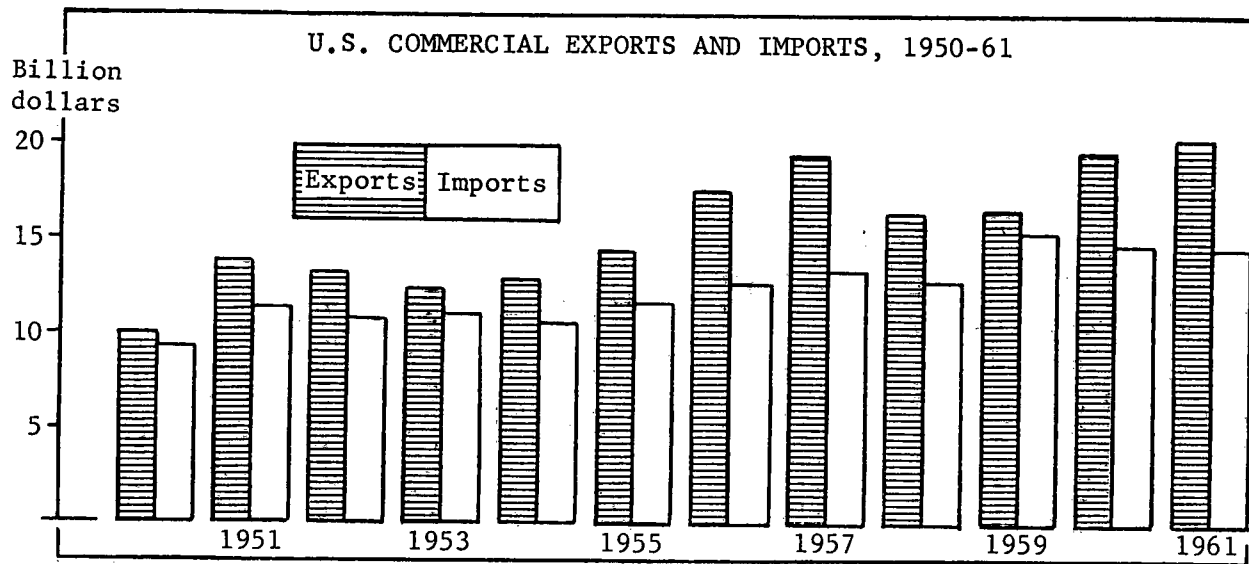


CHART III.—U.S. commercial exports and imports, 1950-61

TABLE 4.—*U.S. trade with Western Europe, 1938 and 1949-62*

(In millions of dollars)

Year	Exports	Imports	Surplus	Year	Exports	Imports	Surplus
1938.....	1, 203	660	543	1956.....	5, 181	2, 957	2, 224
1949.....	4, 175	909	3, 266	1957.....	5, 705	3, 101	2, 604
1950.....	2, 925	1, 368	1, 557	1958.....	4, 474	3, 305	1, 169
1951.....	4, 090	2, 069	2, 021	1959.....	4, 497	4, 528	-31
1952.....	3, 345	1, 995	1, 350	1960.....	6, 285	4, 188	2, 097
1953.....	2, 874	2, 304	570	1961.....	6, 354	4, 068	2, 286
1954.....	3, 405	2, 051	1, 354	1962 ¹	3, 639	2, 596	1, 043
1955.....	4, 197	2, 408	1, 789				

¹ January-August 1962.

Source: "Direction of International Trade," International Monetary Fund.

III. U.S. PRIVATE CAPITAL IN THE BALANCE OF PAYMENTS

One of the major factors in the balance of payments deficit of recent years has been the very large outflow of U.S. private capital. From 1950 to 1955, the outflow of U.S. private long-term and short-term capital averaged about \$1.1 billion a year. In 1960 and 1961, recorded U.S. private capital outflow was \$3.9 billion a year. A considerable amount of unrecorded capital outflow must also have taken place as net payments on unrecorded transactions were \$600 million a year.

TABLE 5.—*U.S. private capital outflow and unrecorded transactions, 1950-62*

(In millions of dollars)

Year	Long-term	Short-term	Un-recorded transactions	Year	Long-term	Short-term	Un-recorded transactions
1950.....	-1, 116	-149	-30	1957.....	-2, 917	-258	+748
1951.....	-965	-103	+470	1958.....	-2, 538	-306	+380
1952.....	-1, 064	-94	+505	1959.....	-2, 298	-77	+783
1953.....	-536	+167	+296	1960.....	-2, 544	-1, 338	-592
1954.....	-954	-635	+167	1961.....	-2, 481	-1, 472	-602
1955.....	-1, 020	-191	+446	1962 ¹	-1, 398	-154	+50
1956.....	-2, 462	-528	+643				

¹ Data are for 2 quarters of 1962. Payments (-), receipts (+).

Source: Balance of Payments, Statistical Supplement, 1958; Survey of Current Business, June 1961, June and September 1962.

Direct investment

In the early postwar period, U.S. direct investment was held back by uncertainties regarding the strength and stability of the world economy. The rapid rise in direct investment since 1956 reflects the effort made by U.S. companies to restore their role in production and trade to a level better suited to economic prospects abroad. This has required an unusually large volume of investment in recent years to make good the deficient level of investment in the earlier postwar period. Once this deficiency has been made good, U.S. direct investment may be expected to fall to a lower level. To some extent this has already happened. U.S. direct investment in Canada reached a peak in 1956-57 and there has been a substantial decline since then. In Latin America, U.S. direct investment also reached a peak in 1956-57 and there has been a sharp decline since then.

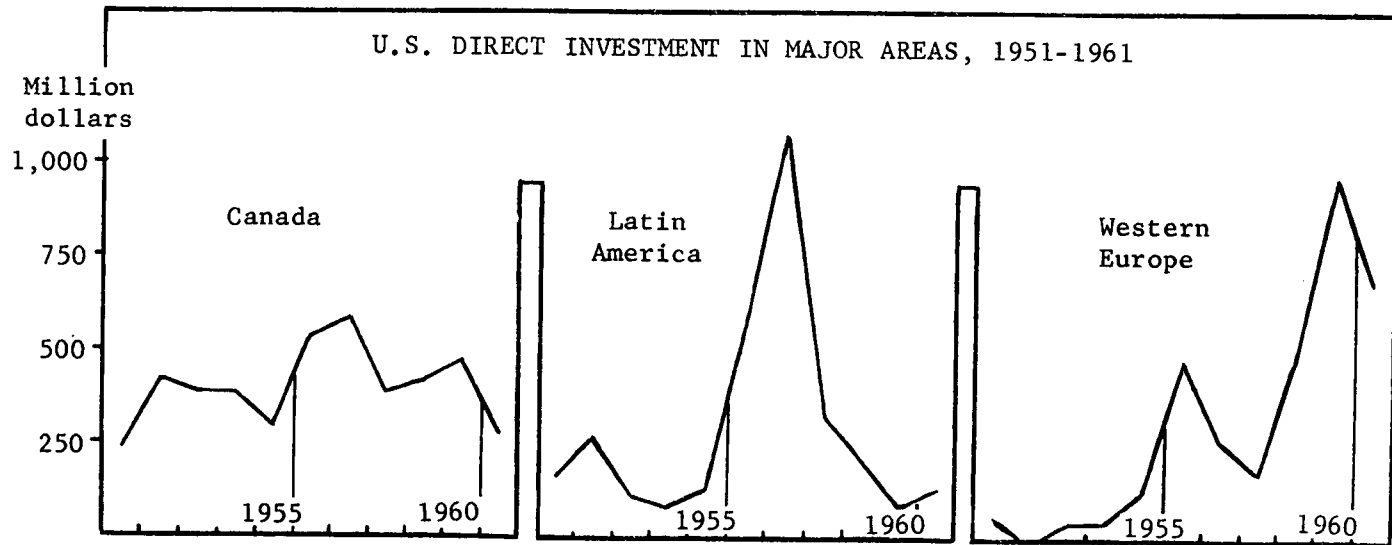


CHART IV.—U.S. direct investment in major areas, 1951-61

U.S. companies were slow in resuming direct investment on a large scale in Western Europe. Because of the remarkable growth of their production and trade, U.S. direct investment in the countries of Western Europe has increased enormously in the past 5 years. The establishment of the European Common Market has been another factor inducing U.S. direct investment in this area. If allowance is made for the bulge in 1960, resulting from the acquisition of outstanding stock in British Ford, U.S. direct investment in Western Europe has been increasing steadily since 1958. The peak of direct investment may not yet have been reached in Western Europe, although it is leveling off. It is interesting to note that even after the rapid increase of recent years, the value of U.S. direct investments, in manufacturing in Europe at the end of 1961 was virtually the same proportion of total U.S. direct investments in manufacturing in all countries that it had been in 1929.

New funds going into U.S. direct investment may be expected to decline slightly for 2 or 3 years. U.S. enterprises abroad will undoubtedly continue to grow at a relatively rapid rate, but a larger part of the capital for their expansion will be derived from reinvested earnings and from funds raised locally. When the rise in U.S. direct investment is resumed, after a few years, it may be expected to be at a much more moderate rate.

TABLE 6.—U.S. direct investment in major areas, 1950–62

[In millions of dollars]

Year	Total	Canada	Latin America	Western Europe	Other
1950.....	621	287	40	117	177
1951.....	528	240	166	61	61
1952.....	850	420	277	-8	161
1953.....	721	387	117	51	166
1954.....	664	355	88	50	141
1955.....	779	300	193	139	147
1956.....	1,859	542	592	486	239
1957.....	2,058	584	1,090	254	130
1958.....	1,094	398	325	173	198
1959.....	1,372	417	218	484	253
1960.....	1,694	471	95	962	166
1961.....	1,475	272	141	686	376
1962 (6 months).....	645	106	-29	389	179

Source: U.S. Balance of Payments, Statistical Supplement, 1958; Survey of Current Business, June 1960, June 1961, June and September 1962.

New issues of foreign securities

As in other types of U.S. private long-term investment abroad, the outflow of capital through new issues of foreign securities in the United States has become very much larger since 1956. From 1950 to 1955, new issue of foreign securities averaged less than \$300 million a year and more than half of this was offset by redemptions of outstanding issues. The only large borrowers were Canada and the World Bank. From 1956 to 1961, new issues of foreign securities averaged \$600 million a year while redemptions averaged only \$125 million a year.

An important factor in the increase of new issues of foreign securities in recent years has been the borrowing of some European countries, several Commonwealth countries, Japan, and Israel. This re-

flects, of course, the greater confidence in the economic position of these countries and their stronger payments position. The U.S. market for new issues of foreign securities remains very firm, and in the first half of 1962 such flotations amounted to \$482 million. Western European countries were the principal borrowers through new issues of foreign securities in 1962, despite their payments surplus and large monetary reserves. It should be noted that nonresident investors buy a considerable part of the foreign dollar bonds issued in the United States.

The factors that make the issue of foreign securities in the United States attractive are the lower interest rates and the low issuing costs. Although many continental countries of Western Europe have a large balance of payments surplus and some of them were important capital exporting countries in the past, their interest rates on bonds, except in Switzerland, are generally higher than in the United States. The World Bank and the Inter-American Development Bank have been able to raise funds in Western Europe, primarily in Switzerland and through special arrangements with the monetary authorities of other countries. It is necessary for the surplus countries of Western Europe to open their financial markets to foreign security issues. Closer cooperation among the monetary authorities on long-term interest rates and on new security issues could be helpful in directing a greater part of the need for foreign capital in this form to the surplus countries of Western Europe.

TABLE 7.—*New issues and redemptions of foreign securities, 1950-62*

(In millions of dollars)

Year	New issues total	Redemptions	New issues by major areas			
			Canada	Western Europe	International institutions	Other countries
1950.....	-254	301	-163	-----	-81	-10
1951.....	-491	113	-302	-----	-139	-50
1952.....	-286	66	-158	-----	-82	-46
1953.....	-270	139	-203	-----	-31	-36
1954.....	-309	124	-167	-----	-88	-54
1955.....	-128	190	-39	-29	-----	-60
1956.....	-453	174	-375	-----	-----	-78
1957.....	-597	179	-324	-25	-187	-61
1958.....	-955	85	-367	-121	-366	-101
1959.....	-624	95	-437	-78	-14	-96
1960.....	-573	100	-227	-24	-97	-125
1961.....	-510	123	-224	-57	-12	-217
1962 (6 months).....	-482	71	-131	-174	-81	-98

NOTE.—Payments (-), receipts (+).

Source: U.S. Balance of Payments, Statistical Supplement, 1953; Survey of Current Business, June 1960, June 1961, June and September 1962.

Short-term funds and unrecorded transactions

Movements of U.S. private short-term funds were not large until 1960. In that year, the recorded outflow of such capital amounted to \$1,338 million and net payments on unrecorded transactions, which include some U.S. private capital outflow, were \$592 million. In 1961, the recorded outflow of U.S. private short-term funds was \$1,472 million and net payments on unrecorded transactions were \$602 million.

A moderate outflow of U.S. private short-term funds is a normal concomitant of the financing of U.S. trade and payments with other

countries. The amounts involved in the steady growth of such financing are not very large. On the other hand, the large differentials in short-term interest rates in the United States, Canada, and Europe have recently induced very large movements of short-term funds. Until a few years ago, U.S. banks and business institutions were not willing to transfer funds on a large scale in response to higher interest returns, even when the exchange risk could be covered by a forward transaction that cost less than the interest differential. Because of the greater confidence in European currencies, however, such capital flows have become much larger in recent years. Operations in the forward exchange market by the U.S. monetary authorities can increase the cost of forward cover and minimize the outflow of U.S. funds for covered interest arbitrage. On the other hand, uncovered interest arbitrage can continue so long as interest rate differentials are sufficiently large.

TABLE 8.—Increase of short term of foreign claims of U.S. banks and recorded short-term capital outflow, 1950-62

[Millions of dollars]					
Year	Bank claims	Capital outflow	Year	Bank claims	Capital outflow
1950.....	70	149	1957.....	253	258
1951.....	70	103	1958.....	343	306
1952.....	81	94	1959.....	81	77
1953.....	-144	-167	1960.....	991	1,338
1954.....	482	635	1961.....	1,086	1,447
1955.....	162	191	1962 (6 months).....	67	154
1956.....	397	528			

Source: U.S. Balance of Payments, Statistical Supplement, 1958; Survey of Current Business, June 1960, June 1961, June and September 1962; Federal Reserve Bulletin.

The greater part of the recorded outflow of U.S. private short-term funds takes the form of an increase in the foreign claims of U.S. banks, held for themselves or others. Until mid-1960, the increase in foreign short-term claims held by banks was small. In the 18 months from July 1960 to December 1961, however, U.S. banks increased their foreign claims by nearly \$2 billion. This large increase must represent in part an attempt by U.S. banks to make good their relatively small extension of credit in this form in the past. While foreign claims of U.S. banks will continue to increase, they are unlikely to be of the magnitudes reached in 1960 and 1961. As a matter of fact, in the first 8 months of 1962, foreign short-term claims of U.S. banks increased by only \$20 million, although there may have been a large outflow of funds since then.

The unrecorded transactions represent the excess of net payments or receipts for all transactions not otherwise included in the balance of payments. It may be assumed that these include some current transactions, some U.S. private capital movements, and some real or nominal transfers of foreign capital. From 1951 to 1956, when U.S. short-term capital outflow was small and foreigners had no urgent reason to transfer funds to this country, the unrecorded transactions resulted in net receipts averaging about \$400 million a year. It was generally assumed that these were almost entirely current transactions. In the 2 years 1960 and 1961, net payments on unrecorded transactions were

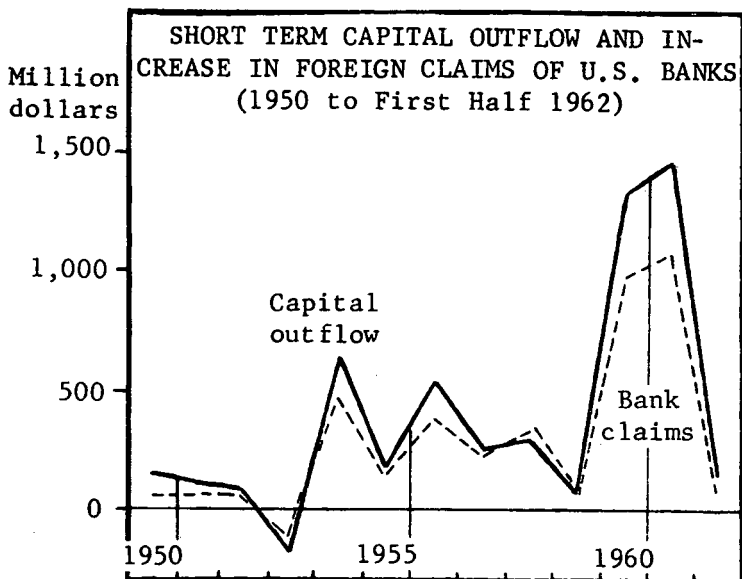


CHART V.—Short-term capital outflow and increase in foreign claims of U.S. banks, 1950-62

nearly \$1.2 billion when recorded outflow of U.S. private short-term funds was over \$2.8 billion. Undoubtedly, a considerable part of these net payments were for the unrecorded outflow of U.S. short-term funds.

Transactions of foreigners in funds held in the United States, but not recorded as foreign-held, can also lead to net payments on unrecorded transactions. Such holdings must have been considerable and they may have been a major element in the net payments on unrecorded transactions in 1960 and 1961. In the 5 years from 1937 to 1941, when the foreign transactions of the United States were about one-fourth of their present scale, net receipts on unrecorded transactions amounted to over \$3.2 billion. In the 3 years from 1947 to 1949, when the foreign transactions of the United States were about one-half of their present scale, net receipts on unrecorded transactions amounted to nearly \$3 billion. As these were periods of severe pressure on foreign currencies, there is reason to believe that the unrecorded inflow of foreign capital must have been very large.

When an unrecorded foreign holder of dollars remits the funds to his own country, this enters the balance of payments as a net payment by the United States on unrecorded transactions and an increase in foreign-held dollar assets. Even if there is no transfer of the funds, but the address of the unrecorded foreign holder of dollars is now recorded as being abroad, it will enter the balance of payments as a net payment on unrecorded transactions and an increase in foreign-held dollar assets. The recent economic strength of Europe, the relaxation of exchange controls on capital, and the convertibility of European currencies have undoubtedly encouraged a real or nominal transfer of undisclosed foreign-held dollars in recent years. A considerable part

of such undisclosed holdings must by now have been either transferred or recorded in the names and addresses of their owners. If that is so, the unrecorded transactions of the United States should again show net receipts rather consistently in the future.

TABLE 8.—*International investment position of the United States*

[In millions of dollars]

Type of investment	1960 ¹	1961 ²
U.S. assets and investments abroad, total.....	71,497	77,331
Private investments.....	50,393	55,517
Long-term.....	45,410	48,927
Direct.....	32,778	34,684
Foreign dollar bonds.....	4,891	5,300
Other foreign securities ³	4,667	5,615
Other.....	3,074	3,328
Short-term.....	4,983	6,590
U.S. Government credits and claims.....	21,104	21,814
Long-term.....	18,212	18,874
Foreign currencies and short-term claims.....	2,892	2,940
Foreign assets and investments in the United States, total ⁴	44,670	50,018
Long-term.....	18,418	21,451
Direct.....	6,910	7,392
Corporate stocks.....	9,302	11,808
Corporate, State, and municipal bonds.....	649	645
Other.....	1,557	1,606
Short-term assets and U.S. Government obligations.....	26,252	28,567
Private obligations.....	12,127	14,114
U.S. Government obligations.....	14,125	14,453
Long-term.....	2,276	2,781
Short-term ⁵	11,849	11,672

¹ Revised.² Preliminary.³ Data for Cuba are omitted in 1961; the 1960 total for U.S. direct investment in Cuba was \$965,000,000 (book value).⁴ Consists primarily of securities payable in foreign currencies, but includes some dollar obligations, including participation in loans made by the International Bank for Reconstruction and Development.⁵ Total includes estimated foreign holdings of U.S. currency: 1960, \$910,000,000; 1961, \$913,000,000.

Source: Survey of Current Business, August 1962.

Income from foreign investment

U.S. private foreign investment is a source of large receipts in the current sector of the balance of payments. Earnings from dividends and interest and the profits of branches abroad brought receipts of \$2,853 million in 1960 and \$3,303 million in 1961. Apart from earnings from private foreign investment, the U.S. Government received \$379 million in 1961 as interest on its foreign loans. Foreign investments in the United States result in remittances of their earnings in this country. Such payments, both private and Government, amounted to \$939 million in 1960 and \$882 million in 1961.

The large excess of U.S. receipts over payments on income from foreign investment is due to several factors. First, U.S. investments abroad, particularly private investments, are much larger than foreign investments in this country. Second, about 90 percent of U.S. private investments abroad are long-term and two-thirds of these are direct investments in U.S. enterprises abroad. Foreign assets and investments in this country, on the other hand, are predominantly liquid

assets that yield a low return. Of long-term foreign assets in the United States, one-third is direct investment and about two-thirds marketable securities. Finally, U.S. direct investment abroad is concentrated in the high-risk industries that yield a high return while a considerable part of foreign direct investment in the United States is in finance, insurance, and trade, where risks and earnings are smaller.

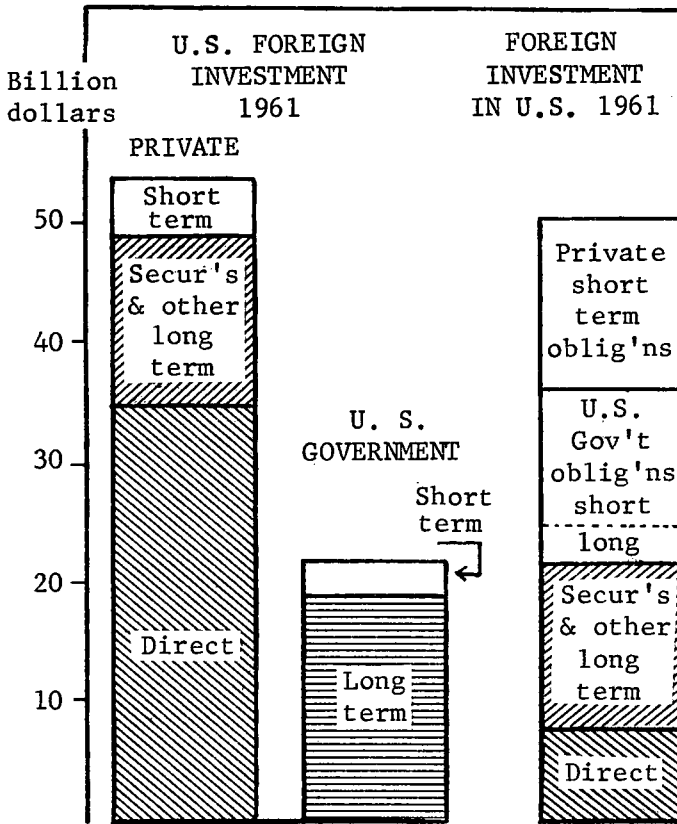


CHART VI.—U.S. investment abroad and foreign investment in the United States, 1961

Remittances from U.S. private foreign investments have been rising steadily. In 1950, receipts from income on U.S. private foreign investments were \$1.5 billion. In 1962, they may reach about \$3.4 billion. There are indications that remittances will rise in the next few years by about \$150 million a year. Remittances of income from foreign investment in this country have also been rising, although the magnitudes are much smaller. In 1950, U.S. payments on income from foreign investments were \$345 million and they will probably reach about \$950 million in 1962. Because of the large net receipts from foreign investment, nearly \$2.5 billion in 1962, the private capital sector, which has placed a great strain on the U.S. balance of payments in recent years is likely to be a source of great strength in the future. This will

be particularly so as the capital outflow becomes more moderate, while earnings remitted to this country continue the rapid rise of recent years.

TABLE 9.—Receipts and payments of income from foreign investments, 1950–62

[In millions of dollars]

Year	U.S. receipts private, total	Direct investment	Other private investment	U.S. payments on foreign investment ¹
1950.....	1,484	1,294	190	-345
1951.....	1,684	1,492	192	-355
1952.....	1,624	1,419	205	-390
1953.....	1,558	1,442	216	-450
1954.....	1,955	1,725	230	-419
1955.....	2,170	1,912	258	-502
1956.....	2,417	2,120	297	-680
1957.....	2,676	2,313	363	-653
1958.....	2,615	2,198	417	-676
1959.....	2,694	2,228	466	-830
1960.....	2,853	2,335	518	-939
1961.....	3,303	2,672	631	-882
1962 ²	² 1,713	² 1,326	² 387	² -483

¹ Payments on foreign investment are private and Government.² 2 quarters of 1962.

Source: Balance of Payments, Statistical Supplement, 1953; Survey of Current Business, June 1960, June 1961, June and September 1962.

IV. U.S. AID AND MILITARY EXPENDITURES

The U.S. balance of payments is unique in the very large transfers and payments of a political or quasi-political character. In 1961, U.S. transfers and payments for military expenditures, military grants, economic grants, and Government long-term and short-term capital amounted to nearly \$8.5 billion. In one form or another, they have a direct or indirect effect on the U.S. balance of payments. Any measures that would limit the effects of such transfers and payments on the U.S. balance of payments would contribute to the strengthening of the payments position of the United States.

TABLE 10.—U.S. Government transfers and payments abroad, 1960 and 1961

[In millions of dollars]

	1960	1961
Item number in Commerce Department Balance of Payments Reports:		
19. Military expenditures.....	3,048	2,947
27. Military grants of goods and services (net).....	1,765	1,465
28. Other grants (economic).....	1,664	1,851
39. Long-term capital, Government.....	1,213	1,938
41. Foreign currency holdings and short-term claims, Government.....	528	262
Total.....	8,218	8,463

Source: Survey of Current Business, June 1962.

Effect on the balance of payments

The impact on the balance of payments is not the same for all types of U.S. Government transfers and payments, nor is the impact the same at different times. Military grants, for example, involve equipment made in the United States. Such grants have only an indirect effect on the U.S. balance of payments. Their produc-

tion requires some imported raw materials, so that U.S. imports may be slightly higher than they would otherwise be. Furthermore, dollar sales of U.S. military equipment would probably be slightly larger if it were not made available under military grants. On the whole, military grants have a negligible effect on the U.S. balance of payments, particularly as a considerable part of such grants is in the form of surplus equipment no longer used by U.S. forces.

In contrast, expenditures in connection with U.S. forces stationed abroad involve payments of dollars to foreigners for goods and services provided to the Defense Department or U.S. personnel. The major constituents of U.S. payments arising from defense establishments overseas are: expenditures of troops, civilian personnel, etc.; purchases of materials, supplies and equipment; expenditures for utilities, transportation, communication, and other services. Nearly 95 percent of the military expenditures of \$2,947 million in 1961 were for these three categories of goods and services. The balance of payments effect is the full amount of such expenditures, except to the extent that they are offset by foreign purchases in the United States.

Economic grants and Government loans have an impact on the balance of payments between these extremes. Where the grants or loans are directly for the purpose of buying surplus agricultural commodities, there is no adverse effect unless such sales displace normal dollar sales that would otherwise have been made. Where grants or loans are used to purchase goods abroad, the balance of payments effect is the same as that of any capital outflow not directly or indirectly related to U.S. exports. Where grants or loans are used to purchase goods in the United States, there may still be an adverse impact on the balance of payments as the availability of such aid may reduce the proportion of their foreign exchange receipts that recipient countries would otherwise use for purchases in the United States.

In the immediate postwar years, when the United States dominated the export markets of the world, it made little difference how and where the dollars paid for military expenditures abroad and U.S. aid were used. The need for U.S. export goods was so great, and alternative sources of supply so limited, that dollars made available to other countries through military expenditures and aid tended to be spent in this country or, if spent abroad, were used by the exporting country to pay for its purchases in the United States. The situation is far different now. If such funds are spent abroad, they may be retained by the exporting country to be added to its reserves. Or if the exporting country uses the dollars to pay for imports, they may be spent in surplus countries that add the dollars to their reserves. Because the indirect stimulus to U.S. exports is smaller than it was in the past, the balance of payments effect of U.S. military expenditures abroad and of U.S. aid will depend primarily on whether there is a commitment on the part of the recipient countries to spend such funds in the United States.

There is no way of projecting with assurance the possible changes in U.S. Government expenditures for military purposes abroad or for economic aid. Military grants have been greatly reduced in the past few years. Military expenditures abroad have been declining very slowly since 1958 and this tendency will continue in the absence

of serious international difficulties. On the other hand, except in 1958, expenditures for economic aid have been rising steadily. This tendency is certain to continue for the next few years. Even wider participation by other high-income countries in the provision of economic aid to underdeveloped countries is unlikely to do more than hold back the rise in U.S. expenditures for this purpose.

Limiting the balance-of-payments effect

As it is not possible to make balance-of-payments considerations a primary factor in determining U.S. military expenditures abroad or U.S. economic grants and Government loans, it has been necessary to take other measures to limit their adverse effect on the U.S. balance of payments. Apart from greater economy in procuring goods and services for military purposes abroad, by shifting more of the supply to U.S. sources, the United States has arranged with a number of countries in which U.S. forces are stationed to make offsetting purchases of U.S. military equipment. In 1961, U.S. receipts from military sales abroad amounted to about \$400 million; in 1962, they are expected to be about \$1 billion. Through restraints on procurement abroad and through increased sales of military equipment, it is hoped to reduce the net impact of military expenditures abroad on the U.S. balance of payments to about \$1 billion a year within the next few years. This would be a substantial factor in strengthening the U.S. balance of payments.

Measures have also been taken to reduce the adverse impact on the U.S. balance of payments of economic grants and U.S. Government loans. Transfers under agricultural disposal programs and Export-Import Bank disbursements are by their nature tied to U.S. exports. Expenditures for other economic grants and Government loans are being directed in greater part to purchases in the United States. In the fiscal year 1962, about 63 percent of the commodity expenditures of the Agency for International Development were made in the United States. This proportion may be expected to rise to about 80 percent within 2 years, as disbursements of new allocations of aid funds are guided by the rules requiring purchases in the United States. Such measures are reducing the adverse impact of economic grants and Government loans on the U.S. balance of payments. They have, unfortunately, also put pressure on the balance of payments of some countries, particularly Japan, that are themselves having payments difficulties.

The foreign loans of the U.S. Government also bring large receipts from interest and repayments of principal, most of it from the surplus countries. U.S. receipts from interest on Government loans have exceeded \$300 million a year since 1958. In 1961, such receipts amounted to \$379 million of which \$198 million was paid by Western European countries. Repayments of principal have been especially large in recent years, amounting to about \$4 billion from 1959 to 1962, because of prepayments on their debts to the U.S. Government by other countries, particularly Germany, France, Italy, and Sweden. At present, Western European countries owe the U.S. Government about \$6.2 billion in U.S. dollars. By far the greater part of this is the balance outstanding on the U.S. loan to the United Kingdom. The scope for large prepayments in the future is limited. Repayments of principal

are expected to be on the order of \$500 million a year by 1965 and to decline gradually thereafter. Payments of interest in dollars are expected to be about \$225 million in 1965 and to decline gradually thereafter.

Despite the measures that have been taken, the transfers and payments of the U.S. Government on account of military expenditures, military grants, economic grants, and Government loans will continue to place a heavy burden on the U.S. balance of payments in the next few years. The expenditures for our forces abroad and for military grants can be reduced only if other countries assume a larger share in the costs of the common defense. Economic aid for the underdeveloped countries cannot be decreased in the foreseeable future, although the pressure to increase U.S. aid would be lessened if other high-income countries participated more generously in the provision of such aid.

TABLE 11.—U.S. Government receipts from interest and repayment of foreign loans

[In millions of dollars]

Year	Interest	Repayments	Year	Interest	Repayments
1950.....	109	295	1957.....	205	659
1951.....	198	305	1958.....	307	544
1952.....	204	429	1959.....	349	1,054
1953.....	252	487	1960.....	349	636
1954.....	272	507	1961.....	379	1,274
1955.....	274	416	1962 ¹	1 264	1 917
1956.....	194	479			

¹ Estimated in 3 quarters of 1962.

Source: U.S. Balance of Payments, Statistical Supplement; Survey of Current Business, June 1960, June 1961, June and November 1962.

V. INTERNATIONAL COOPERATION AND RESERVES

The international economic position of the United States is very strong. This strength is based on its large and productive economy, on the responsiveness of prices and costs to the competitive situation at home and abroad, on its enormous creditor position on private investment account, and on the substantial debts of some of the high-income countries of Western Europe to the U.S. Government. The difficulties incident to the postwar adjustment of the pattern of international payments since 1950 have temporarily offset these longrun favorable forces. When the postwar adjustment is completed, these forces will assert themselves, as is already apparent in some sectors of the balance of payments.

Need for cooperative measures

Despite this, it would be a serious mistake for the United States to neglect its payments difficulties on the grounds that natural corrective forces will ultimately restore the payments surplus which is essential to its position as a reserve center and as the leader of the free world. The fact is that the payments deficit of the United States is still quite large, and may be about \$2 billion in 1962. Even under favorable conditions and with persistent efforts, the payments deficit is not likely to be eliminated before 1964. In the meantime, the dollar remains under pressure, foreign holdings of short-term and liquid

dollar assets are enormous, and the drain on U.S. gold reserves may continue even after the balance of payments is in surplus. The strengthening of the U.S. balance of payments is a matter of concern, not only for the United States, but for other countries as well.

Further efforts must be made to increase U.S. exports. The United States will remain the principal source of capital for international investment and of aid for other countries. To meet these responsibilities, the balance of payments on current account must provide a surplus equivalent to the net capital outflow and the transfers and payments of the U.S. Government. Such a surplus on current account can be achieved only if U.S. exports are increased relative to imports. For this, the U.S. economy must hold down costs and improve its competitive position. At the same time, other countries must remove the restrictions applied against U.S. exports and, together with the United States, lower the barriers to world trade.

Although the capital outflow from the United States has been abnormally large, and may be expected to decline, there is the danger of a recurrent increase in capital movements in the form of short-term funds. Monetary policy in this country and abroad must take account of the effect of large differences in interest rates on the movement of liquid funds. This does not mean that monetary policy cannot be used to influence the domestic economy. It does mean that the range within which interest rates can be allowed to fluctuate in response to economic conditions and the balance of payments will have to be more moderate, in the United States and in other countries. In particular, other financial centers must avoid excessively high interest rates which induce a large inflow of short-term funds and put pressure on the United States.

The United States is by far the largest source of international capital through new issues of foreign securities. While it is to be expected that a considerable part of such placements should be made in the United States, it is necessary for the surplus countries of Europe to provide a greater part of the capital raised in this form. Long-term interest rates must be brought down in the surplus countries to match their greater savings. Their capital markets should be encouraged to develop the necessary facilities for raising capital for domestic and foreign borrowers. The United States and other countries should cooperate on measures to induce foreign borrowers to raise more of the capital they need in the surplus countries.

It is also necessary to have a more equitable allocation of the common burdens of defense and aid. The arrangements already made with some countries to offset U.S. military expenditures with purchases of military equipment in this country are reasonably satisfactory for the time being. The United States will have to continue to provide a very large part of the funds for economic aid. This should be supplemented to a much greater extent with aid from other high-income countries. When more economic aid is made available by other countries, the United States should remove the restrictions that require the use of its aid funds in this country. The most constructive arrangement for providing economic aid for the underdeveloped countries would be to have international contributions to a multilateral agency whose allocations could be used by the recipient in any participating country.

Arrangements on monetary reserves

Even with a strong pattern of international payments, deficits in the future will be much larger than they have been in the past. World trade and other international transactions have increased enormously since 1950. Direct controls on imports and other international transactions have been considerably relaxed, although not entirely removed. Furthermore, because of the greater responsiveness of liquid funds to interest rate differentials in the leading financial centers, massive movements of short-term capital may be expected from time to time. Such capital movements must be minimized through international cooperation on monetary policy and their adverse effects offset by providing special resources for this purpose. This is already being done, although further cooperation to meet the problems of the reserve centers would be desirable.

It is necessary, moreover, to make better provision for the long-run growth of international monetary reserves without excessive dependence on the increase in the stock of monetary gold or a further increase in the liabilities of the reserve centers. The best way to do this is through integrating the resources of the International Monetary Fund with the working reserves of its members. The members of the Fund should include their quotas in a statement of their monetary reserves. They should be permitted to draw on these quotas, within the annual limits of 25 percent, without prior approval. The great trading countries should establish the practice of drawing on the Fund for moderate amounts whenever they use their own reserves. Beyond this, the periodic review of quotas by the Fund should permit a continued growth of monetary reserves to meet the larger deficits that will accompany the expanded level of world trade and payments.

Finally, it should be emphasized that balance-of-payments problems cannot be solved merely by providing more reserves and new facilities for international credit. No country, whatever its basic strength, can continue to finance indefinitely a large and persistent deficit in its overall balance of payments. The only way to end a balance-of-payments deficit is to increase foreign exchange receipts relative to foreign exchange payments. With the steady growth of world trade and the continued reduction of barriers to trade, any country should be able to put its balance of payments in order by following appropriate policies. For the United States, this must be done without generating a deflation in this country and in the world economy. Fortunately, both the United States and other great trading countries are aware of this. We may confidently hope that their policies will be directed toward establishing a strong pattern of international payments in a prosperous world economy.

PRIVATE CAPITAL MOVEMENTS AND THE U.S.
BALANCE-OF-PAYMENTS POSITION

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PREFACE

I would like to express my appreciation to many Government research workers and statisticians who gave time and effort to helping me wade through the intricate task of trying to put together and verify data on U.S. private capital movements—in particular to Walther Lederer and Samuel Pizer, of the U.S. Department of Commerce, Fred H. Klopstock, of the New York Federal Reserve Bank, and Chester Callandar, of the U.S. Treasury Department. I also wish to express indebtedness to those in charge of the Haverford College Computing Center, and to the National Science Foundation, whose generous grant made it possible to establish those computing facilities. Miss Sarah Freedman, of Vanderbilt University, served as my part-time research assistant during the three summer months when the bulk of the work was accomplished, financed in part by the Haverford Faculty Research Fund; her help was invaluable. Mrs. Adeline Taraborelli cheerfully put up with my many shortcomings as a writer while typing the manuscript.

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PRIVATE CAPITAL MOVEMENTS AND THE U.S. BALANCE-OF-PAYMENTS POSITION

INTRODUCTION

Someone is reported to have suggested once that "foreign exchange" is a topic similar in one respect to the Apocalypse in the Bible: "Excessive study of it either finds one mad initially or drives one mad very quickly." And if study of foreign exchange matters in general appears to many people to have this attribute, there are no words to describe the effects of studying the most confusing of all foreign exchange transactions—those involving private capital movements between countries.

But such movements have become far too significant a factor in the U.S. economic scene to leave all understanding to a few experts. In the last 5 years the outward flow of private long-term capital from the United States has exceeded the total of Government loans and grants (other than military), which we hear so much more about, and there has been a substantial outflow of private, short-term capital as well. More important, there has been a substantial increase in private capital moving abroad as compared with events of the previous 5 years, as shown in table 1. In the early 1950's the United States was running a "basic deficit" of \$1,550 million a year, but what we will call the financial deficit was somewhat smaller than this because of a net inflow of funds on short-term capital account. During the last 5 years, in spite of a very substantial increase in the surplus on current account, primarily due to the rise in exports, and only a very small increase in Government loans and grants, the basic balance has worsened by some \$600 million a year on the average. The average annual private long-term capital outflow has more than doubled. And the financial deficit has moved markedly against this country as a result of the adverse shift in the basic balance and a sharp reversal of the tendency for short-term capital to flow into the country from abroad.

It would be easy to look at table 1 and conclude that our present balance-of-payments difficulties obviously result from the swing of our balance on private capital account from an annual net outflow of \$523 million a year to an annual net outflow of \$2,744 million a year, an increase which is nearly twice the increase in our average financial deficit. But this would be far too superficial an explanation. The \$2,200 million increase might be responsible for \$2,500 million in exports, for example, and so not have been a net drain on our balance of payments at all. Or part of it may have gone toward increasing foreign production of imported commodities, therefore contributed to lowering import prices, and so saved us dollar expenditures. Or some of the private capital outflow may have, in effect,

402 FACTORS AFFECTING THE U.S. BALANCE OF PAYMENTS

TABLE 1.—U.S. balance of payments, annual average of 1952-56 and 1957-61

[Millions of dollars]

	Annual average	
	1952-56	1957-61
Balance on current account.....	2,083	3,450
Private remittances.....	-471	-587
U.S. long-term capital:		
Direct investment.....	-1,006	-1,657
Net purchases of foreign securities.....	-121	-778
Other, including trade credits.....	-117	-232
Total.....	-1,244	-2,667
Foreign long-term capital:		
Direct investment.....	169	144
Net purchases of U.S. private securities.....	151	263
Other.....	10	2
Total.....	330	409
Government loans and grants (nonmilitary).....	-2,247	-2,744
Basic balance.....	-1,549	-2,139
Short-term capital:		
United States.....	-254	-672
Foreign.....	217	224
Errors and omissions.....	427	137
Total.....	390	-311
Financial balance.....	-1,159	-2,450
Change in gold holdings (+ denotes foreign purchases).....	163	980
Change in liquid liabilities to banks plus official.....	996	1,520
Total.....	1,159	2,450

Source: Derived from latest revision of balance-of-payments data (as yet unpublished) by the U.S. Department of Commerce, as well as some additional information supplied the author by Commerce officials.

substituted for Government loans and grants and thus have helped to moderate the rise in this item.

Surely, rather careful study of the balance-of-payments effects of the complicated phenomena grouped under private capital movements in the statistics is in order if sound policy decisions, aimed at maintaining ourselves as a viable world economic power, are to be formulated. And the implications of such a study must be widely understood if the policy decisions are to be effective. Ignorance begets legend, and there is nothing more difficult for the policymaker than to have to combat legend.

Our central objective in this monograph is to try to provide a basis for a broad understanding of private capital movements and their impact on our balance-of-payments position and, to a lesser extent, on the domestic economy. We need to know, first, what interrelationships exist between the many varied types of private capital flows and other balance-of-payments items and between one type of capital movement and another, as well as how such movements affect investment and current production abroad and here in the United States. Without some knowledge about these matters we have no basis for determining what national interests are really involved in the phenomenon of foreign investment and, therefore, what policy objectives are appropriate. Second, we need to know what motivates the different types of investment flows—how much, for example, of the ag-

gregative short-term capital flow of recent years has been caused by interest rate considerations and how much by other considerations unrelated to interest rates here and abroad. Without knowledge of what really motivates the flow of capital, we have no way of determining what variables we should try to influence, given any set of policy objectives. Finally, we must consider which policy instruments may be most effective in influencing the relevant variables.

There are basically two types of information we can draw on in seeking answers to these questions: One consists of a great mass of data compiled by the Department of Commerce, the Treasury Department, and the Federal Reserve System on past movements of capital. We draw heavily on these data, attempting to sort them out into their relevant components and to trace through the possible relationships which may exist between each component and the different variables which may induce or influence it. In this way, we try to gain from objective evidence some idea not only of motivating factors but of the quantitative magnitudes involved. Do interest rate changes seem to influence 60 percent of the aggregative short-term capital flow, or is the magnitude nearer 10 percent?

The second type of information available is more intuitive, viz, talks with people who are operating in or close to the various markets involved. Such information has been a valuable supplement to the quantitative evidence collected on the basis of existing data. Generalizations are dangerous on the basis of either type of information alone; at least some generalizations appear to be possible when both types of information are considered together.

The work is divided into four basic parts in accordance with the three principal types of recorded capital movements involved, and a fourth section discussing unrecorded capital movements. Part I deals with direct investment capital—investments by U.S. firms abroad and by foreign firms in the United States in operations which are more than 10-percent controlled by the parent investor. Part II is devoted to long-term portfolio investment in Government securities and in private securities where the investor controls less than 10 percent of the equity of the issuing firm, as well as long-term trade credits. The complex structure of short-term capital movements is investigated in part III. No subcompartmentalization of private capital movements into short- and long-term capital is wholly satisfactory; some direct investment capital is really short-term investment rather than long-term; some purchases of securities having a maturity of more than 1 year is primarily short-term in nature rather than long-term, and some short-term credits are readily renewable and therefore more long-term in nature than short-term, and so forth. But the usual three-part division for recorded capital movements appears to be appropriate as a general framework for our purposes.

The fourth section of the study is devoted to investigation of unrecorded transactions or "errors and omissions" in U.S. balance-of-payments data. Most analysts have suspected for a long time that movements in "errors and omissions" are related to private capital movements. Our study tends, we believe, to corroborate this suspicion, and indeed to provide evidence that changes in errors and omissions may be tied primarily to one or both of two particular kinds of U.S. short-term capital movement, at least in recent years.

I. DIRECT INVESTMENT

"Direct investment," in balance-of-payments accounts of the United States, involves (a) the purchase of foreign securities by a U.S. corporation where the securities are issued by a foreign corporation which is more than 10-percent owned by the U.S. corporation, or (b) a change in intercompany accounts as between a U.S. corporation and a foreign branch or subsidiary which is more than 10-percent owned by the U.S. corporation. This second category of transaction, which is the form taken by a major share of what is reported as U.S. "direct investment" in recent years, may involve various types of activities, all representing the exchange of a domestic asset for a foreign asset. The transaction may take the form of a short-term loan to a foreign corporation, which is to be repaid quickly (which then really should be classified as a short-term rather than a long-term investment), a long-term loan, a loan of indefinite duration on the company's books, possibly never to be repaid but rather made simply to enlarge the parent company's oversea assets, or fourth, an increase in what would be reported as the company's foreign equity investments. In any of these cases, there may be an actual advancement of funds to the oversea affiliate, to be spent abroad or in the United States—for example, for materials, equipment, or even securities; or there may simply be an exchange of physical assets—machinery may be sold by the parent in exchange for an I O U or for an increase in its equity in a foreign corporation.

The important thing to note for our purposes here is that data on direct investment in U.S. balance-of-payments statistics are not really based on type of transaction, but rather on by whom and with whom the transaction is made. If a U.S. firm invests directly in short-term British treasury bills through a U.S. or foreign broker, the investment will be entered as a short-term capital movement in U.S. balance-of-payments statistics (assuming that the company is one of those which reports such data to the U.S. Treasury—if not, it will probably be reflected simply in "errors and omissions"); if, on the other hand, the U.S. company advances funds to an oversea subsidiary, and has the subsidiary undertake the short-term investment on behalf of the parent in effect, the transaction will be entered as long-term direct investment. Similarly, if a U.S. firm sells goods to a foreign subsidiary and long-term financing is arranged through a foreign bank, the capital outflow involved will be listed under long-term trade credits; but if the financing is arranged directly through intercompany accounts with the foreign subsidiary, it will be listed as direct investment. These difficulties with the statistical data available do not, we feel, offer insurmountable barriers for the analysis of the effects of direct investment on the balance of payments. But clearly they must be kept in mind as we proceed.

GENERAL NATURE AND TREND

The data in table 1 show that there has been a substantial increase in the outflow of U.S. direct-investment capital in recent years. The data in table 2 show where this increased capital outflow has been going and what types of investment are primarily involved. Clearly

two types of basic shifts are evident: (1) a substantial increase in U.S. manufacturing investment in Europe; (2) a smaller increase in U.S. petroleum investment in Europe, Latin America, and elsewhere. The former movement gained momentum fairly steadily throughout the 5-year period 1957-61; the latter movement slackened off after a very sharp increase in the single year 1957.

TABLE 2.—U.S. direct investment abroad, by region and by type of investment, 1952-56 and 1957-61

	Annual average									
	1952-56					1957-61				
	Canada	Europe	Latin America	Rest of world	World	Canada	Europe	Latin America	Rest of world	World
Manufacturing.....	71	29	35	7	142	110	255	85	35	485
Petroleum.....	184	86	101	117	488	167	197	231	159	754
Mining.....	79	-----	63	19	155	94	-----	49	26	169
Other.....	73	24	59	30	186	92	63	42	48	245
Total.....	407	139	258	167	971	463	516	407	267	1,653

Source: 1952-56, U.S. Department of Commerce, "Balance of Payments Statistical Supplement" (1958); 1957-59, U.S. Department of Commerce, "U.S. Business Investment in Foreign Countries" (1960); 1960-61 latest published data available from U.S. Department of Commerce, "Survey of Current Business." The data for the world as a whole in this table differ slightly from the data in table 1 because further revisions have been made in unpublished statistics, but no regional breakdown of these data are yet available.

What has stimulated the increased outflow of direct investment capital from the United States in recent years? We can think of the investment in mining and petroleum abroad as being motivated primarily by the need to develop new resources not available at all, or not available in sufficient quantities at comparable costs in the United States. In the case of the manufacturing investment, there is a need seen by U.S. companies to develop new markets, to maintain or increase their share in the rapidly growing economies of Western Europe and Japan. The real question is, Why does this movement to take advantage of new market opportunities take the form of expanding plant and equipment abroad rather than increasing the output and export of goods from this country? There may be institutional factors involved. Many executives feel that the type of goods demanded abroad are sufficiently different from those produced in the United States as to necessitate production on the scene, assuming cost considerations do not strongly dictate otherwise. On the other hand, it is apparent that in many cases cost considerations alone dictate the development of facilities abroad. These cost factors may involve transportation costs and thus locational issues, production costs because of lower wages, or tax advantages. At any rate, for varied reasons U.S. direct investment abroad has been increasing sharply in recent years. And the question we seek to answer is what effect this growth in the outflow of direct investment capital has had on the U.S. balance-of-payments position.

DIRECT INVESTMENT AND THE BALANCE OF PAYMENTS

The variables involved

Six principal variables are involved in the analysis of the effects of U.S. direct investment on our balance-of-payments position. There

is first of all the outflow of capital itself, which unless offset by changes in other balance-of-payments items, serves to enlarge both the basic deficit and what we have called the financial deficit. Second, the outflow of capital generally involves a stream of dividends and interest consequent upon the investment; these contribute favorably to the current account, the basic balance, and the financial balance. Third, much of our foreign investment is closely intertwined with the export of U.S. merchandise. When investment funds move abroad, there may be immediate new sales of machinery and equipment produced in the United States as a result of the facilities being fashioned abroad. This may normally be thought of as a once-and-for-all increase in our exports; in measuring the effect of direct investment on the balance of payments, the amount of new exports of this type should really be subtracted from the outflow of capital since there is no net adverse effect from such a transaction on either the basic balance or the financial balance. On the other hand, the development of foreign facilities may generate a stream of capital equipment flowing abroad for replacement purposes. Both types of export are involved in the sale of capital equipment to U.S. subsidiaries overseas, and whether we think of such sales as being a once-and-for-all phenomenon or a continuing stream depends really on how long the foreign manufacturing facilities have been in existence.

Development or expansion of U.S. manufacturing overseas may also involve a continuing stream of new U.S. exports in the form of raw materials or goods in an intermediate stage of production. In terms of a single investment, these exports may well be substantial in the early years following the investment, but taper off as the foreign facilities are expanded and diversified.

The export of capital equipment, raw materials, and goods in process to U.S. branches and subsidiaries abroad are complementary to direct investment. They offset the balance-of-payments drain of the outflow of capital. But foreign investment may clearly have an adverse effect on U.S. exports as well. Production abroad may substitute for goods produced in the United States, either in terms of sales within the country in which production takes place or through new export sales to third-country markets which, in effect, displace U.S. exports. It is likely that the first type of possible displacement effect is not substantial; unless special patents or the like are involved, if a U.S. company producing abroad can outcompete a U.S. manufacturer producing at home, then so, too, could a foreign producer. In other words, sales from the United States could probably not be maintained whether or not the foreign direct investment were undertaken. This issue is somewhat more nebulous with respect to sales made in third-country markets by U.S. subsidiaries established abroad. Here the competitive margin may be much less significant, and any institutional ties to "home production" will be absent.

In addition to the capital outflow, the dividend and interest inflow, and any complementary or substitution effect of the capital outflow on exports, a fourth variable involved in any analysis of balance-of-payments effects concerns U.S. imports. The development of facilities abroad may lead directly to new sales in the United States which displace U.S. domestic production. This does not necessarily imply a net adverse effect on our balance of payments. If U.S. production is not

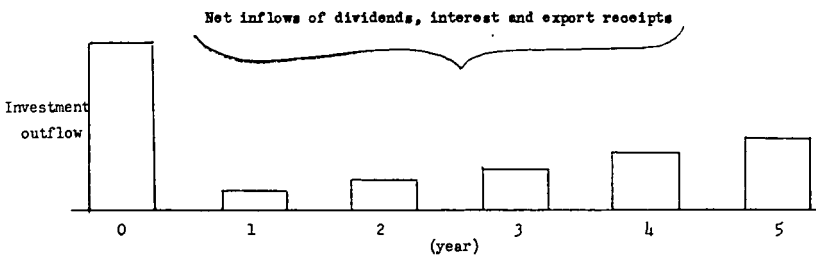
generally competitive with production overseas, a foreign company could presumably cut into domestic sales by U.S. corporations even if no direct foreign investment by U.S. companies was undertaken. In other words, direct sales in the United States by U.S. subsidiaries abroad may displace home production or they may simply substitute for sales by foreign corporations which would have displaced home production anyway.

When U.S. direct investment capital goes overseas, it sometimes generates yet another flow of related current spending, viz, payments by U.S. subsidiaries to the parent company in return for licenses on patents or for management fees. These comprise a fifth variable which must be taken into account in the analysis of the effects of direct investment on the balance of payments; the inflow of income from fees and royalties, like dividend income, helps to offset the outflow of funds for direct investment.

A final variable which may be related in balance-of-payments terms to the flow of U.S. direct investment overseas consists of complementary or offsetting short- or long-term movements of capital of varied kinds. For example, the establishment of production facilities overseas may lead to increased opportunities to utilize foreign financial markets to finance merchandise trade from the United States. Or new facilities overseas may augment the flow of funds overseas from the U.S. financial market. The interaction between direct investment and other types of long- and short-term capital movements into and out of the United States is an immensely complicated subject. We will try to take cognizance of the various possibilities, but we will treat them largely in parts 2 and 3 of this study.

*Conceptualization: a simple model*¹

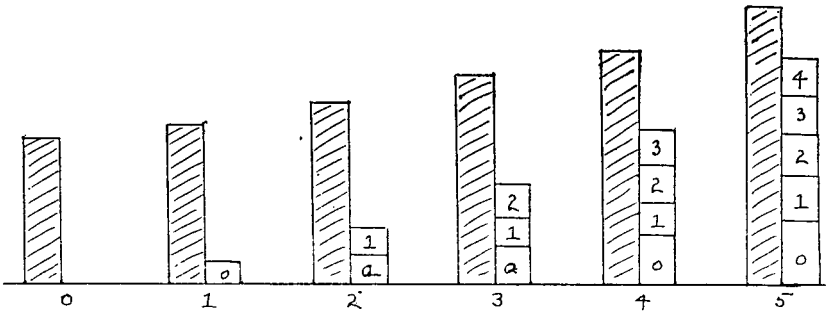
Basically what is involved in analysis of the effect of direct investment on the U.S. balance of payments is an initial net outflow of capital and then subsequent inflows and outflows of funds related to that investment. If we assume that the related flow of funds involves a net inflow to this country, as seems likely, i.e., essentially that the dividend, interest, and complementary export income outweighs any substitution effect resulting from sales in the United States or elsewhere in the world by the direct investment enterprise overseas which displace U.S. production, then we can trace schematically the balance-of-payments effect of a single investment in year zero as follows:



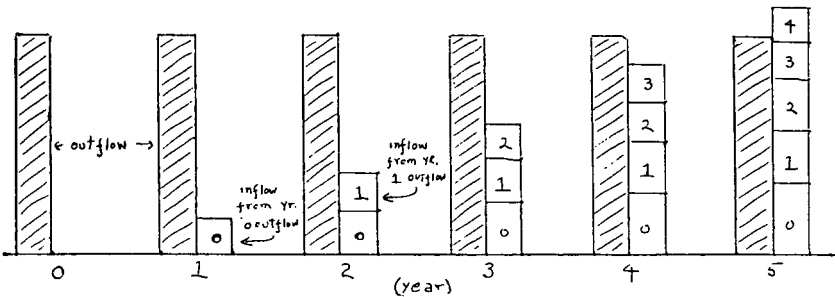
¹ The formal model which underlies the approach presented in this and the next section is given in app. I. It was developed by the author as a means of analyzing the effects of eliminating the deferral of U.S. taxes on the balance of payments while serving as a consultant for the U.S. Treasury Department, and underlies exhibit III of the Treasury's presentation to the Senate Finance Committee in April 1962. See hearings before the Committee on Finance on H.R. 10650, U.S. Senate (1962), pt. I, pp. 172-217.

Annual dividends, interest, and related net export receipts increase in years subsequent to the initial outflow because some earnings abroad are reinvested in the foreign subsidiary; expansion in the book value of the enterprise from this source will add to the inflows associated with the original investment. Cumulative inflows consequent upon the initial investment will at some time under our assumptions match and surpass the amount of the initial investment, thus recouping the dollars going overseas initially; at some point, because of continual reinvestment of a share of the earnings each year, annual inflows should match and surpass the original outflow.

It is tempting to try to use this rather simple model, involving a single injection of new investment and subsequent related outflows and inflows, for analysis of the total effects of direct investment on our balance-of-payments position. For some types of issues the model may be applicable. But of course in fact there is a continuing stream of new capital flowing out, each individual investment generating a stream of net inflows. If the capital outflow forms a steady stream each year, our schematic picture of balance of payments effects would be altered as follows:



If, as would be more likely, the outflow increases more or less steadily year by year, our picture would be as follows:



If we are dealing with a steady stream of direct investment capital, annual inflows will catch up to the annual outflow in the same number of years it takes the cumulative inflow to match the initial outlay in the single injection case. But clearly it will take a considerably longer time for cumulative net inflows to catch up to the cumulative outflow. On the other hand, if the annual outflow increases at a steady rate

year after year, net inflows from a stream of new direct investments will take a considerably longer time to catch up to the outflow of funds than is the case when the outflow is stable year after year.²

It should be made clear that we are necessarily dealing with a time-sequence of events here, and that the inflows which are relevant for our analysis are those related to the original outflow. The fact that actual total inflows in years 1-5 may have been very much larger than as pictured in our schematic illustration—indeed each year they may have been in excess of the annual outflows—because of accumulated past investments has no bearing on the balance-of-payments effects of the investment in year zero and subsequently. To illustrate, suppose a corporation at the end of 1951 had \$100 million of outstanding investment overseas, and was returning annually \$20 million to this country in the form of dividends and payments for exports, royalties, fees, and so forth. Between 1952 and 1961, \$50 million more in new capital goes out from this country, and annual inflows rise to \$25 million. It is surely misleading to suggest that the outflow of \$50 million between 1952 and 1961 brought back \$250 million (\$25 million for each of 10 years) in inflows. Even to compare the \$5 million increase in annual inflows with the \$50 million outflow is misleading, since the former was generated in part by reinvested earnings from the returns on investment outstanding in 1951. To compare current total inflows with current total outflows for a given year or sequence of years in attempting to assess the effects of foreign investment on the balance of payments, as has often been done, is to suggest that what are in fact two unrelated events are in some way related to each other. The relevant comparison is total inflows with the total cumulative past investment which generated those inflows (investments which may, for example, go back to 1900), or the increment in inflows with the current investment which generated this increment.³

Now the question arises as to whether a "single injection" approach or a "continuous stream" approach is the more relevant for analysis of the effects of direct investment on the U.S. balance-of-payments position. Clearly the "payout" period differs substantially in the two cases. The answer to this question would appear to depend upon the policy issue being posed. If one wishes to analyze the possible effects of exchange control measures designed to restrict individual investment projects singled out by the exchange control authorities, then the "single investment" approach is applicable. Indeed, British authorities have seemingly adopted this approach from time to time.⁴ If, on the other hand, one wishes to analyze the possible effects of a blanket policy measure which will affect the stream of new investment year after year, such as the proposal to eliminate the deferral of U.S. income taxes on earnings of oversea subsidiaries until those earnings are brought back to this country, then the "continuous stream" approach would seem to be relevant. Eliminating the tax advantage afforded by deferral to foreign as opposed to home investment would

² If there is any reinvestment of earnings, the book value of foreign investment outstanding will grow at a stable rate which exceeds the rate of growth of new investment. This implies that at some point inflows should catch up to outflows. See app. I.

³ See exhibit III, op. cit., 183-184 for references and further discussion of this issue.

⁴ See Secretary Dillon's statement before the Senate Finance Committee, hearings on H.R. 10650, op. cit., pt. I, 103-103.

affect not only investment in year zero and subsequent inflows, but also investment in year 1, in year 2, and so forth, and in turn their subsequent inflows as pictured in our schematic illustration.

Empirical clothes for the model

In order to measure the effects of direct investment on our balance-of-payments position, either on a "single injection" or a "continuous injection" basis, in terms of the general model sketched in the previous section, one needs to know first the rate of return on new investment going overseas, and the proportion of these earnings which is sent home and the proportion which is reinvested abroad. This will tell us the size of the dividend inflows associated with the new investment and the growth of book value from reinvested earnings which will in turn generate new inflows in addition to those generated by the outflow of new capital from this country. Second, one needs to know the value of fees and royalties, and the value of net exports generated by the capital outflow. The figure for net exports should be the additional exports generated by growth in the book value of foreign investment over and above those exports which would have been sold even without expansion in oversea production, less the value of any new oversea sales which substitute for goods which would have been exported from this country had the additional production not been undertaken by U.S. subsidiaries overseas, less the value of additional imports into this country generated directly or indirectly by the new oversea investment over and above any new imports which would have been sold in this country by, say, foreign companies if the U.S. investment had not been undertaken. Thirdly, for the "continuous stream" approach, we need to know something about the rate of growth in the new investment going overseas.

Needless to say there are substantial practical difficulties involved in determining empirical values for the parameters, values which are necessary for analysis of the U.S. experience in recent years. We have discussed these difficulties at some length elsewhere, and will not repeat that discussion here.⁵ Given the existence of substantial statistical qualifications—the principal one being that we are forced in large part to use "average" propensities, based on comparing total inflows with the outstanding book value of investment at the end of a particular period, rather than the "marginal" propensities, based on comparing incremental inflows to book value, as would be appropriate—we show in table 3 the values of the relevant para-

⁵ See exhibit III, op. cit., 184-186 and elsewhere in that document. The only real criticism of the handling of the data there which would have any significant effect on the parameter values employed and thus on the general analysis and outcome is that we excluded, in computing the "net export ratio," the value of exports going to trading subsidiaries abroad. The establishment of sales subsidiaries abroad involves relatively little investment capital, and presumably would be undertaken regardless of major investments in production facilities abroad, the effects of which we are trying to measure. It is possible, of course, that the establishment of manufacturing facilities abroad may lead to larger sales of finished goods exports from the United States made through trading subsidiaries, but this issue was dealt with in considering the total volume of finished goods exports which might, in some way or other, be related to the volume of direct foreign investment, whether these goods are sold through foreign sales subsidiaries or not. For reasons given in exhibit III (see pp. 191-192), we believe that the value of such "related exports" is unlikely to exceed the value of "displaced exports" (from new sales by U.S. subsidiaries abroad consequent upon increased direct investment), neither of which can be measured rigorously in quantitative terms, and therefore a conservative estimate of the two effects is to cancel one against the other. It has been suggested to us that actually "related exports" may be somewhat larger than "displaced exports" in the early years following the establishment of new enterprises abroad, and that this would probably be reversed in later years. This might well be the case.

meters for different regions determined by careful analysis of U.S. direct investment over the period 1957-60.⁶

TABLE 3.—Basic parameter values for measuring the effect of direct foreign investment on the U.S. balance-of-payments position

[r=rate of return (earnings) on total investment outstanding; a=proportion of earnings remitted as income to the United States; f=fees, royalties, etc., as a proportion of total direct investment outstanding; x=net exports as a proportion of total direct investment outstanding]

	1957-60				1957	1959-60	f+x
	r	a	(1-a)r	ar	f	x	
Manufacturing investment:							
Canada.....	0.096	0.423	0.055	0.041	0.018	0.177	0.195
Europe.....	.168	.467	.090	.078	.025	.041	.066
Subtotal ¹.....	.147	.454	.080	.067	.023	.080	.103
Latin America.....	.090	.302	.063	.027	.016	.415	.431
Rest of world.....	.187	.451	.103	.084	.024	.478	.502
Subtotal ².....	.117	.343	.077	.040	.018	.432	.450
World ³.....	.140	.427	.080	.060	.022	.166	.188
Petroleum investment:							
Canada.....	.040	.428	.023	.017	(0)	(0)	(0)
Europe.....	.090	.748	.023	.067	(0)	(0)	(0)
Latin America.....	.158	.401	.085	.063	(0)	(0)	(0)
Rest of world.....	.246	.611	.096	.150	(0)	(0)	(0)
World ⁴.....	.151	.581	.063	.088	(0)	(0)	(0)
All industries:							
Canada.....	.074	.416	.043	.031	(0)	(0)	(0)
Europe.....	.148	.506	.073	.075	(0)	(0)	(0)
Latin America.....	.112	.335	.074	.038	(0)	(0)	(0)
Rest of world.....	.202	.462	.109	.093	(0)	(0)	(0)
World ⁵.....	.124	.442	.069	.055	(0)	(0)	(0)

¹ Weighted by direction of new capital outflow to manufacturing, 1957-60: 28.9 percent to Canada, 71.1 percent to Western Europe.

² Weighted by direction of new capital outflow to manufacturing, 1957-60: 72.6 percent to Latin America, 27.4 percent to the rest of the world.

³ Weighted by direction of new capital outflow to manufacturing, 1957-60: 21.7 percent to Canada, 53.5 percent to Western Europe, 18 percent to Latin America, 6.8 percent to the rest of the world.

⁴ Not available.

⁵ Not weighted.

Source: See exhibit III, U.S. Senate Finance Committee, "Hearings on H.R. 10650" (1962), pt. I, 203-217.

Unfortunately no data are available for exports to other than manufacturing subsidiaries abroad. Presumably such exports would consist almost entirely of capital equipment on a once-and-for-all basis, and thus would in effect lower the total value of new direct investment considered to be at least an initial drain on the balance of payments, but would not alter the picture of subsequent inflows offsetting an "initial dollar" of investment, or the stream of investment subsequent to that assumed "initial dollar." The "payout" period is unchanged by the amount of the investment. Thus, table 3 yields all of the principal data necessary for our analysis. Column (1) in this table shows us the annual earnings on a dollar of foreign investment based on the data for 1957-60. Column (3) then yields the amount of these earnings which were reinvested abroad, column (4)

⁶ The data for 1953-56 yield basically a very similar overall picture of the effects of foreign investment on the balance of payments as the data for 1957-60, although in a few cases (mostly related to petroleum investment), individual parameter values differ. The data for the last 4 years rather than an 8-year total are thought to be more relevant for our current balance-of-payments difficulties and so are given here.

the amount of earnings which were sent home as dividends.⁷ Thus, it can be estimated on the basis of the 1957-60 data that a dollar of investment in manufacturing in Europe yielded 8 cents annually in dividends, while a dollar invested in Canada yielded only 4 cents annually in dividends. For the world as a whole, the average was 6 cents.

Columns (5), (6), and (7) involve estimates of what a dollar of manufacturing investment in different areas of the world yields in terms of net annual inflows other than dividend income. Here we see a striking difference between inflows generated by investment in developed countries and inflows generated by investment in less-developed countries of the world—10 cents as opposed to 45 cents. That investment in less-developed regions should generate more in the way of complementary exports than investment in developed regions is not in and of itself surprising; fully integrated operations are much less feasible in less-developed countries, and alternative sources of supply are not so available. Nevertheless, the size of the difference in "net export" ratios is perhaps surprising.

With the figures given in table 3 we have most of the necessary ingredients for analysis of the balance-of-payments effects of U.S. direct investment overseas. Let us put them to work.

Implications of the model

Empirical estimates of the relevant parameter values as given in table 3 suggest that a dollar invested in manufacturing facilities returns on the average, independent of effects from reinvested earnings, around 50 cents a year in dividends, royalties and fees, and net export receipts if invested in Latin America, around 25 cents a year if invested in Canada, around 15 cents a year if invested in Europe. Reinvested earnings tend to slowly augment these inflows over time so that we can say that return inflows will more than match an initial outflow in the second year following investment in manufacturing in Latin America, after 4 to 5 years following investment in Canada, and after 6 to 7 years following investment in Europe. There would appear to be a short-run drain on the balance of payments, but a drain which is fairly rapidly recouped, after which time there will simply be a continuing favorable contribution to the basic balance as a result of an initial investment of \$1.

The payoff period for other types of investment is much more difficult to estimate, for we know little or nothing about the extent to which petroleum and mining investment create complementary exports. As already indicated, capital equipment exports which go with an initial investment would not affect the payoff period, but rather would tend to reduce the effect of the initial outflow on the balance of payments, on a once-and-for-all basis. There would presumably, however, be some capital equipment exports sold to oversea branches and subsidiaries in these industries for replacement purposes, and

⁷ The figures for manufacturing investment alone are more meaningful than those for petroleum investment and for all industries. Earnings of foreign branches, as opposed to foreign subsidiaries, are considered to be all remitted to the United States in Commerce Department data. Any amounts in fact left abroad in branches are considered to be a new capital outflow. This distinction in the treatment of earnings of foreign branches and foreign subsidiaries makes little difference in the case of manufacturing investment since the bulk of manufacturing operations overseas (95 percent) is conducted through foreign subsidiaries. But only 60 percent of our petroleum and mining operations are conducted through subsidiaries, and thus the Commerce Department distinction becomes significant for these industries.

these would affect the payoff period. Given the relatively high rate of return in dividends in these pursuits, and the unknown factor of replacement exports, we would expect a maximum payoff period in activities other than manufacturing of perhaps 5 to 7 years.

But now the question is, What does this single investment payoff period really imply about "the effect of foreign direct investment on the U.S. balance-of-payments position"? Consider a hypothetical example. Suppose we consider all earnings to be returned home each year, with any additions to book value overseas coming from new investment from this country.⁸ Suppose further that the rate of return on the book value of invested capital overseas is 20 percent, and that book value grows at 25 percent a year—all of this growth made possible by new capital outflow from the United States. An initial dollar of investment is returned to this country in the form of dividends, fees and royalties, and net export receipts after 5 years. But the overall effect of foreign investment on the balance of payments would have to be set forth as follows:

Year	Capital outflow	Related inflow	Annual net balance-of-payments effect	Cumulative net balance-of-payments effect
0	-1.00		-1.00	-1.00
1	-1.25	0.20	-1.05	-2.05
2	-1.56	.45	-1.11	-3.16
3	-1.95	.76	-1.19	-4.30
4	-2.44	1.15	-1.29	-5.59
5	-3.05	1.64	-1.41	-7.00
6	-3.81	2.25	-1.56	-8.56
7	-4.76	3.01	-1.75	-10.31
8	-5.95	3.96	-1.99	-12.30

Each year's single investment, considered by itself, has a favorable effect on the balance of payments after 5 years, but one can hardly say that "direct investment improves the balance of payments in the long run" here, for in fact under our assumptions the outflow of funds grows at a faster rate than the related inflows, and the net annual drain gets steadily larger—forever.

Clearly both types of approaches—analysis of the effects of a single investment and analysis of the effects of a continuous stream of investments—may be relevant, the choice depending upon what one wants the analysis for. If one wishes to analyze the possible effects of a temporary policy measure which can be used selectively to affect the level of direct investment in any given year, such as the application of exchange controls, then analysis of the effects of a single injection is relevant. If one wishes to analyze the possible effects of a permanent policy measure which will affect the level of investment indiscriminately now and in all future years, such as a change in taxes, then the continuous stream approach is the valid one.

Admittedly, however, the continuous stream approach offers more hazards than the single injection approach, for an additional parameter value is involved—the rate of growth of new direct investment outlays, or of the book value of outstanding investment. And this growth rate is extremely difficult to forecast. While new U.S. direct

⁸ This assumption is consistent with Department of Commerce handling of the data on investment and dividends in foreign branches, but not consistent with handling of the data for subsidiaries.

investment outlays in manufacturing facilities in Europe have been growing at the rate of 12 percent or more in recent years, this clearly has been a special phenomenon related to development and growth of the European Economic Community. A safer estimate of the future growth rate of U.S. direct investment in Europe, and in the world at large, would be, say, between 5 percent and 10 percent a year. As shown in appendix I, these two rates would imply a stable overall growth rate in the book value of foreign investment in the neighborhood of 10 percent and 13 percent, respectively—rates which are not inconsistent with recent domestic investment growth rates in the countries receiving the bulk of our direct investment capital.

With these sorts of assumptions about growth rates, we find that the payoff period in balance-of-payments terms of a continuous stream of investment outlays in manufacturing facilities in Europe and Canada is 10–15 years, rather than 4–7 years.⁹ And the payoff periods suggested above for manufacturing investments in other areas, and for other types of investments, are lengthened commensurately.

These estimates take no account of secondary effects, of where the dollars are spent which do not come directly back to this country in dividends, in royalties and fees, or in spending on U.S. exports by overseas subsidiaries. It is sometimes argued that since the dollar reserves of most of the regions outside of Europe have not generally increased in recent years, any excess of direct investment outlays over and above return inflows to these countries could not be a drain on our balance of payments. The dollars return to this country almost immediately, whether sent home for one reason or another directly by the branches and subsidiaries themselves, or paid to other persons in the country in which the investment is undertaken and returned by these persons to this country, to purchase U.S. exports, or to purchase U.S. securities.

But this hypothesis is surely too superficial. In fact, the dollar is an international currency. Dollars may be spent by Latin American countries to purchase British or German goods as well as U.S. goods, and then go into British or German reserves. And U.S. subsidiaries in Latin America may send excess dollars to the Euro-dollar market as well as to the New York money market.¹⁰ Secondary spending effects may reinforce the sharp disparity in payoff periods for U.S. direct investment as among different regions already evident from analysis of the direct effects, and they probably do. But there is no way to be very sure about this.

II. FOREIGN INVESTMENT IN LONG-TERM SECURITIES

While the magnitude of annual investment in foreign portfolio securities by U.S. residents does not match the outlays for direct investment treated in part I, the absolute increase in portfolio investment has been nearly as large as the absolute increase in direct investment. And the percentage increase of portfolio investment of the last 5 years compared with that of the previous 5 years has been

⁹ See exhibit III, *op. cit.*, especially table A7, p. 217.

¹⁰ The 1961 survey of U.S. export sales to U.S. subsidiaries overseas by the Department of Commerce, conducted at the request of the House Ways and Means Committee, brought forth some surprising information about the flow of funds between Latin American subsidiaries and Europe. Much was made of the flow of funds from European subsidiaries to Latin America. See U.S. House Ways and Means Committee, hearings on the President's 1961 tax recommendations (1961), vol. I, pp. 427–431. But in fact the flow from Latin American subsidiaries to Europe offset about two-thirds of the flow from Europe to Latin America in 1959–60.

over 500 percent, while the direct investment rise was less than 70 percent. The increase in foreign investment in U.S. long-term securities for 1957-61 compared with 1952-56 has been substantial, but on a very much smaller plane than U.S. investment in foreign securities.

The basic components of the movements in long-term portfolio capital over the last 10 years are shown in condensed form in table 4. Investment by U.S. residents in foreign stocks has been approximately matched throughout the decade 1952-61 by foreign investment in U.S. stocks. The substantial increase in net portfolio outflow has been in bonds, not stocks, and while most of this has been in the form of increased new issues on the New York market, the demand for foreign bonds seems to have outrun the new supply coming on to that market so that U.S. residents have been buying outstanding issues, presumably going to foreign capital markets to fill their needs. We will have more to say about this below.

TABLE 4.—Annual averages of net purchases of foreign long-term securities by U.S. residents and of U.S. long-term securities by foreigners, 1952-56 and 1957-61

(Millions of dollars)

	Annual average	
	1952-56	1957-61
U.S. net purchases of foreign securities as given in Treasury data:		
Bonds.....	-102	-650
Stocks.....	-124	-210
Total.....	-226	-860
Less adjustments ¹	-105	-82
Total for balance-of-payments purposes.....	-121	-778
Of which:		
New issues.....	-289	-660
Redemptions.....	138	111
Net.....	-151	-549
Transactions in existing securities:		
Bonds.....	141	-45
Stocks.....	-111	-184
Subtotal.....	30	-229
Foreign net purchases of U.S. private securities as given in Treasury data:		
Corporate bonds.....	19	18
Stocks.....	115	195
Total.....	134	213
Add adjustments ¹	17	50
Total for balance-of-payments purposes.....	151	263
Of which:		
Corporate bonds.....	36	61
Stocks.....	115	202
Total.....	151	263
Foreign net purchases of U.S. Government securities as given in Treasury data.....		
	125	261

¹ The adjustment for overstatement of U.S. net purchases of foreign securities made the Commerce Department in Treasury data results largely from the deletion of purchases of securities by U.S. corporations which are included as direct investment. The adjustment for understatement of foreign net purchases of U.S. private securities which Commerce makes in Treasury data results largely from Commerce substitution of Canadian information for Treasury information on the net sale of U.S. corporate bonds by Canadians in this country; Commerce has found that Treasury data grossly overstate these net sales, and therefore understate net purchases.

Source: Treasury data compiled from tables I-3 and I-4 in the capital movements section of the Treasury Bulletin, May 1962, pp. 81-82. The breakdown of U.S. net purchases into new issues and redemptions is from lines 33 and 34 of the latest revision of Commerce Department balance-of-payments data, as yet unpublished, while the figure for U.S. transactions in existing securities, with its 2 parts, and foreign net purchases of U.S. securities needed for balance-of-payments purposes, with its 2 parts, were supplied the author by the Commerce Department. These figures are elements of lines 35 and 43 of the revised Commerce data, labeled "other long-term," the residual being largely long-term trade credits.

INVESTMENTS IN LONG-TERM SECURITIES AND THE BALANCE OF PAYMENTS

Outflows and related inflows

The balance-of-payments effect of investment in long-term portfolio securities is less complex, and therefore more readily discernible than is the balance-of-payments effect of direct investment. The direct return inflow associated with portfolio investment is limited almost entirely to interest and dividends. If we take the total outflow into foreign securities over the past 5 years and divide this into the total of the annual increments in dividend and interest receipts on other than direct investment capital, we find that the rate of return is 6 to 7 percent, about what we would expect.¹¹ Clearly, it will be a very long time before even a single investment outflow is recouped in cumulative interest and dividend receipts at this rate of return, and so long as the stream of portfolio capital moving abroad grows at more than 6 to 7 percent a year (it has been exceeding this rate of growth by many times in recent periods), income receipts will never catch up to the capital outflows.

TABLE 5.—*Cumulative net purchases of foreign long-term securities of U.S. residents and of U.S. long-term securities by foreigners, regional breakdown, 1957-61*

[Millions of dollars]

	Canada	Europe	Other regions	International institutions	World
Net U.S. purchases of—					
Foreign bonds.....	-1,704	333	-510	-1,200	-3,081
Foreign stocks.....	-226	-696	-111		-1,033
Total.....	-1,930	-363	-621	-1,200	-4,114
Net foreign purchases of—					
U.S. corporate bonds.....	-235	188	80	52	85
U.S. stocks.....	-142	887	215	15	975
U.S. Government bonds.....	51	355	153	746	1,305
Total.....	-326	1,430	448	813	2,365
Net portfolio capital flow in—					
Bonds.....	-1,897	876	-277	-402	-1,690
Stocks.....	-368	191	104	15	-59
Total.....	-2,265	1,067	-173	-387	-1,749

Source: Figures are compiled by cumulating the monthly totals given in the Treasury Bulletin over the 5-year period 1957-61. The Treasury Department publishes only preliminary monthly data on net purchases of securities vis-a-vis individual countries; revised data are given only for the world as a whole. There are therefore small discrepancies between the data in this table and the data in table 4.

But there is another facet of the problem to consider in attempting to assess the balance-of-payments effects of investment by U.S. residents in foreign long-term securities. Unlike direct investment capital, the portfolio capital outflow has been going, net, all to countries which have not been accumulating dollars, but rather have been spending them. Table 5 gives a regional breakdown of the net inflow and net outflow of capital involving long-term securities for the period 1957-61. Ninety percent of the U.S. outflow over this 5-year

¹¹ The 5-year outflow was \$3,888 million. The increment in dividend and interest income over the previous year summed to \$335 million over the 5-year period, but part of this was attributable to new long-term trade credits which comprise the bulk of the 5-year outflow of \$1,158 million listed as "other long-term capital" after transactions in existing securities have been deleted from this item.

period went to regions other than Europe, split about equally between Canada on the one hand and less-developed countries on the other (counting that moving to such regions through international institutions), although this probably overstates the amount going to less-developed countries, for a portion of the World Bank funds borrowed on the U.S. market have not yet been lent out but rather are counterbalanced by purchases of U.S. Government bonds and some of what is included in Treasury data as borrowing by "international institutions" is actually new bond issues floated by the European Coal and Steel Community. Perhaps more informative is the net movement of portfolio capital between the United States and other regions of the world. It is evident from the third part of table 5 that during the last 5 years the United States has supplied Canada with something over \$2 billion in this manner, less developed countries something under \$1 billion (the net outflow through international institutions was greater than shown because most of the outflow was through the World Bank while most of the inflow accrued to the International Monetary Fund), and that one-third of this \$3 billion outflow has been offset, or financed so to speak, by an inflow of capital from Europe.¹² Given the fact that, on balance, capital involving purchases and sales of long-term securities has been moving from the United States to countries which are spending dollars, and from countries which are accumulating dollars to the United States, we can say that these movements have probably not served to weaken our balance-of-payments position.¹³

Liquidity of existing holdings

Cumulatng monthly net purchases in this way provides us with some insights about the potential threat that long-term capital movements may have for the viability of our balance-of-payments position. Approximately three-quarters of the \$3.9 billion outflow into foreign securities over the past 5 years must be considered as a reasonably "permanent" movement of capital, this amount comprising in large part the new issue of foreign or international securities in this country and to a much smaller degree the purchase of foreign stock as part of direct investment operations. The remaining transactions in existing securities can be divided into stock and bond purchases as follows:¹⁴

	<i>Million</i>
Cumulative net U.S. purchases of foreign stocks, 1957-61.....	\$922
Cumulative net U.S. purchases of foreign bonds, 1957-61.....	225
Total.....	1,147

How much of these transactions involved the actual movement of funds to foreign capital markets and how much simply the sale by foreigners of existing foreign stocks and bonds traded on the New York market is not known. Only the former can normally be included as capital which might be repatriated; sale of a foreign secu-

¹² Actually, the outflow of portfolio capital to Canada and the inflow of portfolio capital from Europe is often direct, because in fact a significant portion of new issues of Canadian bonds is purchased directly by Europeans in the New York market.

¹³ Again this conclusion must be qualified, although probably not to such an extent as in the case of direct investment capital, by the warning that countries which do not accumulate dollars may spend dollars in Europe. See discussion in pt. I, this study.

¹⁴ The discrepancy between the figures used here and those in the regional data in table 5 is due to use of preliminary figures in that table.

rity issued in New York would normally be from one U.S. resident to another.¹⁵

Against this recorded absolute maximum of \$1,150 million of potentially mobile U.S. capital invested in long-term foreign securities over the last 5 years—heavily in Canadian bonds traded in Canada and in European stocks, and some in Canadian stocks—we must pit some \$1,300 million in foreign acquisitions of U.S. corporate bonds and stocks during this same period, divided \$300 million in bonds and \$1,000 million in stocks.¹⁶ All of this is potentially mobile; how much in fact is likely to leave under at least some conditions, and what conditions are likely to make it flow out again, we shall have to consider in our discussion of motivations below. In addition, some of the foreign acquisitions of U.S. Government securities must be considered mobile capital. About 60 percent of the growth in foreign holdings, however, accrued over this period to international institutions: mainly the International Monetary Fund, which experienced a substantial increase in its dollar holdings in 1959 and a further increase in 1960 and which slowly invested some of these proceeds in long-term securities in 1959, 1960, and 1961. These funds in general are not likely to leave our shores in substantial amounts unless our balance-of-payments position improves; that is, unless the rest of the world is forced into borrowing dollars from the Fund.

The remaining \$780 million in gross foreign acquisitions of U.S. corporate and Government bonds over the 5-year period was divided on a 70:30 basis between Europe and the rest of the world, \$510 million comprising net purchase of U.S. Government securities (the \$350 million of European purchases attributable entirely to four countries—Denmark, Norway, Sweden, and the United Kingdom) which are probably mostly part of the official reserves of the owners, although this may not be so for the United Kingdom, which acquired \$230 million the \$350 million of European investments.¹⁷ We come down then to a figure for truly mobile long-term capital invested in U.S. securities over the 5-year period 1957–61 of between \$1,000 million and \$1,500 million; that is, the approximate amount probably invested by the foreign private sector, including foreign banks, and most of it—approximately \$1 billion—has been invested in U.S. stocks.

There thus do appear to be potentialities for fairly wide swings of capital involving purchases and sales of long-term securities, swings which could substantially affect our balance-of-payments position. Some of the funds already existing at the end of 1956 should be classified as mobile capital, although it is our feeling that most of it is not. But a good share of the mutual accumulations here and abroad

¹⁵ The volume of new foreign stock issues on the New York market and of new foreign bond issues as well which are actually purchases by U.S. residents is often a small proportion of the total amount of the issue. A large proportion of the European issues in particular that have been publicly floated in New York have ultimately been taken up by European investors. See Secretary Dillon's speech at the Ninth Annual Monetary Conference of the American Bankers Association in Rome, U.S. Treasury Department press release, May 18, 1962.

¹⁶ We emphasize the word "recorded" because when we come to consider short-term capital movements we will suggest that a substantial amount of funds may in fact seep out through this channel and then become invested in long-term foreign securities is collected from U.S. brokers and dealers; we have absolutely no way of knowing the magnitude of purchases and sales conducted through foreign dealers.

¹⁷ It is believed that a substantial portion of British acquisitions may have accrued to insurance firms needing dollars to back some of their contingent liabilities which would have to be paid in dollars.

since that time, during a period when the world experienced a general relaxation of exchange restrictions, convertibility in Europe, and so forth, may well be quite mobile capital. This may amount to between a billion and a billion and a half dollars on both sides. We must try to find out what, if anything, might make this capital move, and that involves trying to find out in the first instance what might have made it move in the first place.

MOTIVATIONS FOR INVESTMENT IN LONG-TERM SECURITIES

In a search for the motives which induce investment in foreign long-term securities by U.S. residents and of U.S. long-term securities by foreign residents, the total flows in both directions break logically into three types: (1) New issues of securities—almost entirely of foreign securities in this country; (2) purchases of government securities of one country by official institutions of another, or by international institutions—again almost entirely a one-way flow, in this case to the United States; and (3) private transactions by individuals, banks, insurance companies, and nonfinancial corporations in the domestic long-term securities of a country other than their own.

Interest rates and purchases of bonds

In the case of new issues of foreign national securities on the U.S. market, it would seem probable that the primary motivating factors would be bound up with national fiscal and long-run balance of payments needs of the countries concerned. These new issues are almost entirely (with some exceptions in the case of Canada in particular) new foreign government issues. A few governments might have access to both New York and London markets and choose between them on the basis of interest rate considerations, but it is doubtful that the quantitative magnitude involving such a choice is great. And it seems doubtful that many governments would choose to get themselves involved in foreign rather than domestic debt because they could borrow at lower rates abroad, although this is possible. It would seem likely, then, that interest rates might affect only the timing of new issues if they had any effect at all. This might not apply so far as foreign states and municipalities are concerned (both Australian and Canadian states and/or municipalities have, at one time or another, borrowed heavily on the U.S. capital market), but even here there might be some pressure brought to bear from the national government if states or municipalities are acting against what is thought to be the national interest, simply because of a differential in home and foreign interest rates.

The evidence we have collected for U.S. net purchases of foreign bonds from the end of 1956 through the first quarter of 1962 tends to corroborate this general hypothesis about the role of interest rates. We have found no statistically significant relationships between new national issues on the one hand, and United States and United Kingdom long-term interest rates on the other.¹⁸ Indeed, in the case of

¹⁸ Summing the monthly data given in Treasury Bulletins into quarterly figures of net purchases, we tried multiple regressions involving U.S. net purchases of the bonds of European countries as a whole, with and without the United Kingdom, of Canada, of the rest of the world, and of a number of individual countries, with the United States and United Kingdom long-term interest rates and a trend factor. In no case did interest rates prove to be significant. See app. II.

no country or region other than Canada did the U.S. interest rate alone have any significance as a determining factor; even the timing of the new issues of most countries in the United States appears to be largely independent of interest rate considerations. New purchases of Canadian bonds, however, which comprise so large a proportion of the total, appear to be an exception, to this latter rule at any rate, and deserve special attention.

Figure 1 shows that net purchases of Canadian bonds by U.S. residents were geared closely to the differential in long-term interest rates between Canada and the United States from the end of 1956 through the first quarter of 1962; even though this differential was small in absolute terms since these two interest rates generally move together, net purchases tended to be significantly larger during periods when the differential was large than when it was small. Either the Canadians offered more securities on the U.S. market when borrowing was slightly cheaper here relative to the cost in Canada, or U.S. residents purchased more bonds traded in Canada when the return was relatively higher there. Very probably both motivations were at work.¹⁹

The question is, Does this interest rate differential merely determine to a considerable extent the timing of these transactions, or does it determine absolute amounts over long periods of time? The evidence suggests that interest rates determine largely deviations from the trend, not the trend itself, that it is the timing of purchases which is affected rather than absolute amounts.²⁰ If the decision of Canadians to issue new Canadian bonds in the U.S. market, say sometime within a given 6-month or year period, is made largely independent of interest rate considerations, and only the timing of the purchase is influenced by interest rates, then the importance of long-term interest rates to our balance-of-payments position is negligible.

One other situation with respect to new issues of foreign securities in the United States deserves mention. It would appear that the timing of new issues of securities by international institutions, principally the World Bank, may have to some extent been influenced by the U.S. long-term interest rate during the period 1957-61.²¹ Indeed, certain newspaper reports and the like have suggested at one time or another that officials of the World Bank have taken this factor into account. Here again, however, surely timing is what is largely involved; the decision as to where to raise capital depends to a large extent on considerations other than interest rates.

We come, then, to foreign purchases of U.S. Government and corporate bonds in this country. The chief buyers of these securities, other than the International Monetary Fund, have been Europeans in re-

¹⁹ There is substantial U.S. trade in Canadian securities listed on the Canadian market as evidenced by the fact that total net purchases of Canadian bonds substantially exceed the difference between total new issues of foreign securities in the United States and the total of net purchases of all other foreign bonds of other than European countries—purchases which must consist very largely of new issues. The listing of prices on the Toronto exchange daily in the New York Times and other such evidence also points to the significant magnitude of transactions made on the Canadian exchange.

²⁰ See equations (2.1) and (2.2) in app. II. Regression coefficients are not significant when trend is excluded, and the correlation coefficient is extremely low, whereas, both coefficients are significant, and the correlation coefficient is very much higher, when a linear trend factor is included. That the trend factor dominates, and interest rates merely determine deviations from trend, suggesting that it is principally the timing of purchases rather than the absolute amount which is determined by interest rates, is suggested by evidence showing what proportion of the "explained" movements is lost when each of the independent variables is dropped: Canadian interest rate, 42 percent; United States interest rate, 27 percent; trend, 65 percent.

²¹ See equation (2.7), app. II.

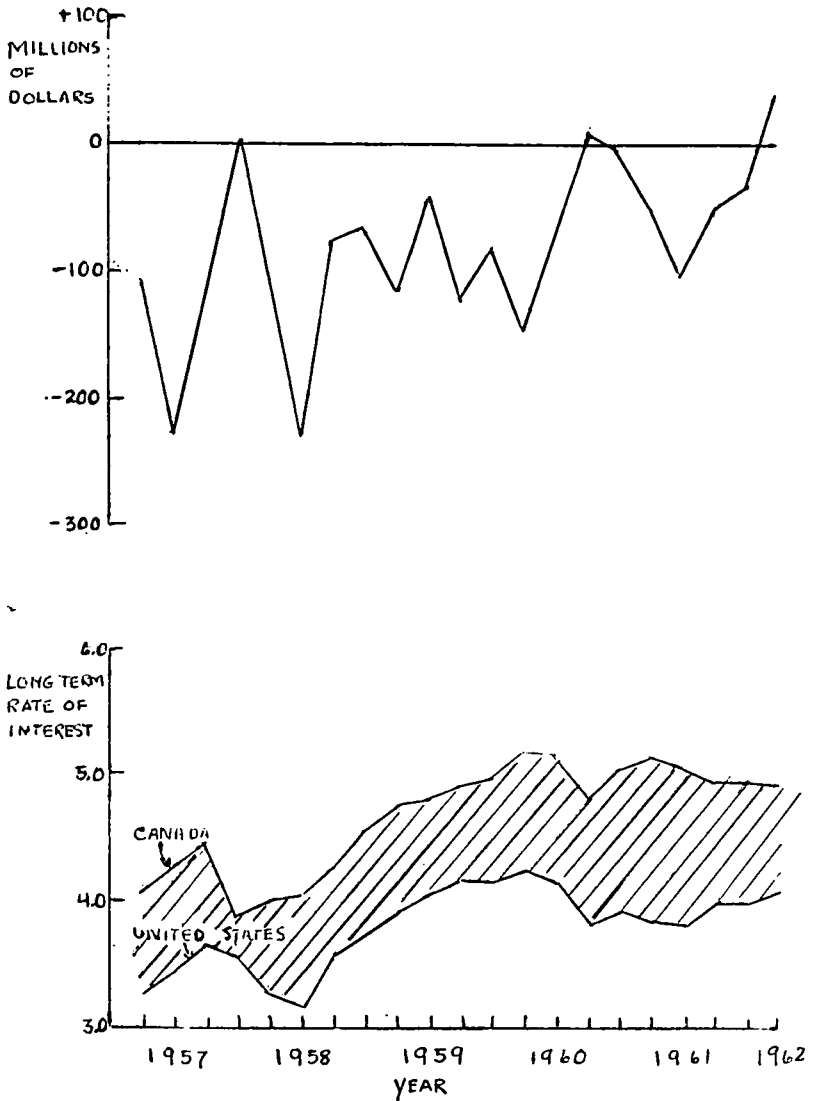


FIGURE 1.—Net purchases of Canadian bonds by U.S. residents, and Canadian long-term interest rates, quarterly, 1957(I) to 1962(I)

cent years, although residents and governments of less-developed countries have also been net purchasers, as can be seen from table 5. And the principal securities traded have been U.S. Government bonds, rather than U.S. corporate bonds, although movements in corporate bond holdings have not been insignificant. Foreign purchases of U.S. bonds may comprise largely "autonomous" movements of portfolio capital, in quest of diversification, favorable interest yields, or some other advantage, or they may simply be a reflection of growth in a country's dollar reserves, as would be suggested in the case of some,

and perhaps most holdings of U.S. Governments. In this latter case we might expect purchases to be related to the United Kingdom-United States interest differential (on the basis that reserves could be accumulated in either London or New York), or purchases might be related to the differential between the U.S. long-term and short-term interest rate (on the ground that countries were going to accumulate dollar reserves regardless of international differentials, but might still be influenced by the yield pattern in the United States).²²

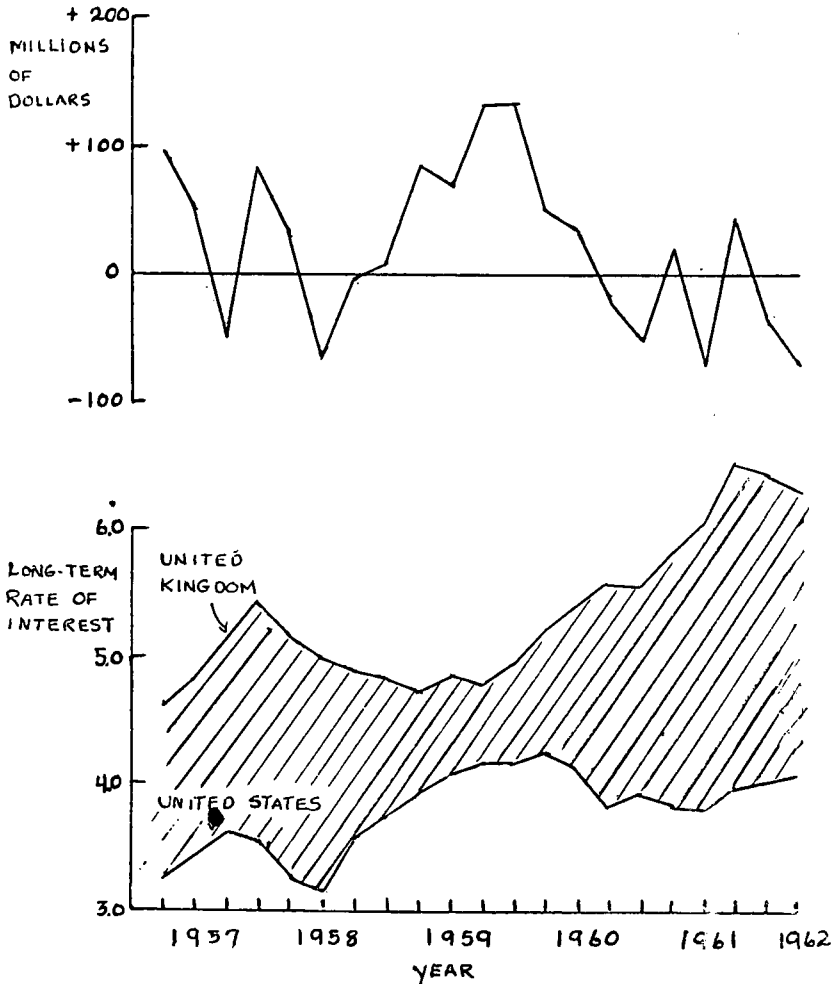


FIGURE 2.—European net purchases of U.S. Government and corporate bonds, and United States and United Kingdom long-term interest rates, quarterly, 1957 (I) to 1962 (I)

²² It is presumably on this assumption that the change in all foreign long-term holdings of U.S. Government securities is put "below the line" in official U.S. balance-of-payments statistics. Because of the ambivalent nature of the evidence, we did not alter this practice in arranging the data in table 1, except that changes in private nonbank holdings were included as foreign short-term capital above the line.

The evidence accumulated in appendix II suggests that the long-term rate of interest in the United Kingdom perhaps has had little to do with foreign purchases of U.S. bonds, but that European purchases, at any rate, have to some extent been influenced by the U.S. long-term rate, but not by the differential between U.S. short- and long-term rates.²³ Furthermore, there is less of a distinction as between purchases and interest rates alone, and purchases, interest rates, and trend than in the Canadian case, that is, it is not so clear that only the timing of European purchases, if anything, is affected by interest rate considerations.

The statistical relationship between European purchases of U.S. bonds and interest rates is only barely significant, however. Furthermore, as can be seen in figure 2, it is really dominated by the fact that heavy purchases were made in 1959, immediately after convertibility was established, and the United Kingdom-United States differential narrowed at this time. It seems likely that Europeans would have increased their holdings of U.S. bonds anyway in order to build up long-term working balances in dollars, which they had been prevented from doing previously by exchange restrictions.

Purchases of stocks

Figure 3 shows the general pattern of behavior of foreigners in purchasing U.S. stocks and of U.S. residents in purchasing foreign stocks over the past 5 years. As in the case of bonds, convertibility and the trend factor appear to dominate the scene. We have been able to find no consistent statistical relationship between deviations from trend (on a quarterly basis) and share prices, although various leads and lags were tried as well as coincident series. It is true that foreign purchases of U.S. stocks increased fairly sharply during 1961 and early 1962 when U.S. share prices pulled away from British share prices, but these purchases, mostly by Europeans, increased much more sharply in 1959 when British share prices were rising relative to U.S. share prices.

One factor influencing in particular foreign purchases of U.S. stocks is brought out fairly clearly in figure 3. These purchases seem to be related to a considerable extent to the level of activity in the United States. The two shaded areas in figure 3 are recession periods, the beginning and ending dates established by the Department of Commerce using averages of statistical series in the manner developed by the National Bureau of Economic Research. Foreign purchases fell rather sharply during the 1957-58 recession, and the general upward trend subsequent to this period leveled off significantly during the 1960-61 downturn. On the other hand, U.S. purchases of foreign stocks tended to increase somewhat during recession in this country.

The fairly even two-way directional movement of funds into foreign stocks—in particular from the United States to Europe and from Europe to the United States—plus the absence of any close relationship between purchases and either existing or future share prices suggests that these private capital movements have been motivated primarily by a general desire for diversification in recent years. The movement of U.S. funds to Europe has also in part probably been a

²³ See equations (2.11) through (2.15) in app. II.

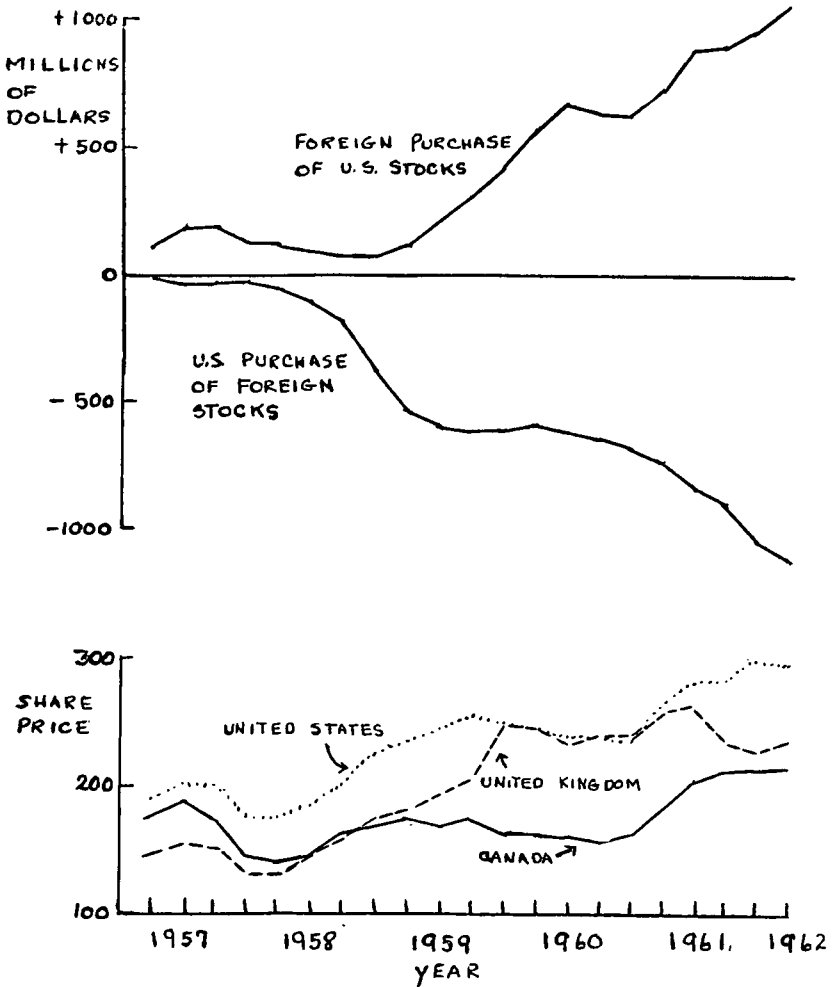


FIGURE 3.—Cumulative purchases of U.S. stocks by foreigners and of foreign stocks and by U.S. residents with share prices, quarterly, (1957(I) to (1962(I))

response to the high rates of growth there, and the possibility, therefore, of substantial capital gains.

In terms of future possibilities, the United States would seem to have an advantage in this two-way flow. The U.S. stock market is a highly developed market, with wide diversification in the ownership of shares, and laws regulating reports by firms whose securities are traded on the market. In contrast, trade on European markets is relatively "thin," with spreads between bid and ask quotations substantial; the total value of shares listed on the Paris bourse is only a little more than \$20 billion. And European firms are reluctant to make the sort of disclosures on finances which is required in the United States. Individual U.S. investors cannot acquire the information necessary to select among foreign stocks, and mutual funds cannot

acquire information to disclose to their shareholders to justify their selections. High European profits in recent years have to some extent offset these innate disadvantages, but if these profit rates level off, it would seem likely that the net flow would run much more strongly in favor of the United States.²⁴

NOTE ON LONG-TERM TRADE CREDITS

A not insignificant increase in the outflow of private capital from the United States in recent years, of a type which does not fit readily into any of our three basic categories, has been long-term trade credits. These term loans, mostly by U.S. banks in participation with the Export-Import Bank of Washington and to a lesser extent the World Bank, increased substantially from an average annual outflow of \$87 million in 1952-56 to \$236 million in 1957-61. Such loans have been traditionally concentrated in Latin America.

For the most part, long-term trade credits, like short-term trade credits, must be considered at worst to have a "neutral" impact on the balance of payments in the short run, and a favorable effect over the longer run. Probably there is a favorable effect even in the short run, since exports financed in this way would presumably not have been sold without the credit, and the credit may comprise only a portion of total cost. We may expect long-term trade credits to continue to expand over the next few years since the Export-Import Bank has recently developed comprehensive insurance coverage for banks against political and commercial risks on such loans, but such a development should cause us no consternation so far as effects on the balance of payments are concerned.

III. SHORT-TERM CAPITAL MOVEMENTS

GENERAL NATURE AND TREND

Long-term capital movements—both direct investment and net purchases of portfolio securities—were a phenomenon of great and increasing importance in the U.S. balance-of-payments picture throughout the decade 1952-61. The balance on private long-term capital account grew from an average annual net outflow of \$900 million in 1952-56 to an average annual net outflow of \$2,250 million in 1957-61 (see table 1), and it seems likely that this outflow will at least continue, if not increase, in the immediate years ahead.

In contrast to this, recorded "autonomous" movements of U.S. and foreign short-term capital were small and of relatively little significance between 1952 and 1959. During these years a small outflow of U.S. funds were generally matched or more than matched by an inflow of foreign nonbank funds; movements of short-term capital did not enter into discussions of the U.S. balance of payments situation simply because on balance such movements appeared to be relatively insignificant.

In 1960-61 this picture suddenly changed, as can be seen in table 6. U.S. short-term capital began to flow out at the rate of over \$1,300 million

²⁴ A number of the points in this paragraph are made in telling fashion by Lawrence B. Krause, of Yale University, in an unpublished study on private foreign investment.

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TABLE 6.—Comparison of long- and short-term capital movements and their initial effect on the U.S. balance-of-payments position, annual averages, 1957-59 and 1960-61

(Millions of dollars)

	Annual average		Change, 1957-59 to 1960-61
	1957-59	1960-61	
U.S. long-term capital:			
Direct investment.....	-1,665	-1,648	17
Net purchases of foreign securities.....	-807	-734	73
Long-term trade credits and other.....	-269	-175	94
Total.....	-2,741	-2,557	184
Foreign long-term capital:			
Direct investment.....	164	116	-48
Net purchases of U.S. private securities ¹	225	313	88
Other.....	1	4	3
Total.....	390	433	43
Balance, private long-term capital ¹	-2,351	-2,124	227
U.S. short-term capital (net).....	-221	-1,348	-1,127
Foreign commercial credits.....	64	23	-41
Increase in nonbank holding of U.S. liquid liabilities.....	219	-6	-225
Balance, recorded "autonomous" short-term capital.....	62	-1,331	-1,393
Errors and omissions.....	686	-685	-1,371
Residual.....			-2,764

¹ Net purchases of U.S. Government securities by foreigners are here not included as foreign long-term capital. Such purchases averaged \$222,000,000 in 1957-59 and \$316,000,000 in 1960-61, according to Commerce data (which then approximates the Treasury data given in table 4). Purchases of U.S. Government securities by other than international institutions amounted to \$162,000,000 in 1957-59 and \$133,000,000 in 1960-61. It is not known what proportion of these purchases were made by private residents and what proportion by official bodies of foreign countries.

Source: Same as table 1.

year, and the inflow of foreign capital tended to dry up. Furthermore, there was a sharp swing in the "errors and omissions" item in U.S. balance of payments statistics, from a net inflow of \$685 million resulting from unrecorded transactions to a net outflow of the same size, a shift which has been thought by many to be linked to outflows of short-term capital.²⁶ It is possible that the true magnitude of the shift in short-term capital away from the United States in 1960-61 was not simply the \$1,300-1,400 million a year which was recorded (involving mainly a recorded large increase in the outflow of U.S. funds and a recorded decline in the inflow of foreign funds), but rather was nearer \$2,700 million a year—an amount equal to the annual average outflow of funds on long-term private capital account, or on Government account for loans and grants to foreigners. In any attempt to assess the current significance of private capital movements on the U.S. balance of payments, analysis of short-term flows has thus become quantitatively as significant a problem as analysis of long-term flows.

Study of short-term capital movements and their effect on the U.S. balance of payments position breaks naturally into three parts: (1) recorded movements in U.S. funds; (2) recorded movements in foreign funds; and (3) unrecorded movements in U.S. and/or foreign

²⁶ See Edward M. Bernstein, "Interest Rates and the U.S. Balance of Payments," in Carl J. Friedrich and Seymour E. Harris, "Public Policy." A Yearbook of the Graduate School of Public Administration, Harvard University, 1961, p. 173; also Hal B. Lary, "Problems of the United States as World Trader and Banker," ch. II of unpublished manuscript.

funds which may be bound up with the "errors and omissions" item in U.S. balance of payments statistics. We must analyze the magnitudes of the various component parts of each of the first two types of flow and try to determine what has motivated them in order to lay a base for policy considerations with respect to these movements. Then we must try to see how closely the marked change in unrecorded transactions in U.S. balance of payments data is related to the various types of recorded short-term flows and analyze the implications of our findings for policy.

U.S. SHORT-TERM CAPITAL MOVEMENTS

Movements in the basic components

The basic components of movements in the U.S. short-term capital account during the past 5 years are given in table 7. The data on such movements are compiled by taking changes in outstanding short-term claims on foreigners as between two particular dates as reported by (a) U.S. banks, (b) some 600 large U.S. nonfinancial corporations with operations abroad, and (c) U.S. brokers and security dealers. Unlike almost all other balance of payments items, where information is collected on actual flows of expenditure, short-term capital movements are measured by collecting information on stocks at a moment of time and assuming that a change in stock implies an equal flow of expenditure. This distinction has considerable significance when we come to consider unrecorded transactions and the possibility that they are in fact hidden short-term capital movements.

The data in table 7 have been grouped to show six basic categories of flows, with a regional breakdown for each. The four basic types of recorded U.S. short-term claims are (1) loans by U.S. banks to foreign banks and official institutions; (2) a composite of other bank loans and collections outstanding which I will call "trade credit"—the amounts outstanding tending to move closely with the level of our exports; (3) "other dollar claims" reported by U.S. banks, which contains two quite different types of claim: special arrangements, such as those with Japanese banks and others, that appear to be closely geared to our level of exports, as is the "trade credit" total; and dollar deposits, presumably of U.S. banks and individuals, in Canada and Europe; (4) dollar claims of U.S. nonfinancial corporations. The two other categories of claims shown consist of amounts payable in foreign currency as reported by banks, and by nonfinancial corporations. They consist of deposits in foreign banks (other than dollar deposits) and an "other" category which includes accounts, notes, bills, and drafts receivable, as well as short-term foreign security holdings.

The data in table 7 are summarized in table 8 in such a way as to enable us to form some perspective on recent movements of U.S. short-term capital going abroad. Movements which would normally be thought for sure to be primarily associated with the financing of U.S. exports—loans to foreign banks, "trade credit," and the "other credit" reported by U.S. banks to less developed countries of the world which is believed to be almost entirely acceptances—comprised 100 percent of the net outflow of U.S. short-term capital between 1957 and 1959, between 55 and 60 percent of the much larger outflow

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TABLE 7.—U.S. short-term capital outflow, 1957-61

[Millions of dollars]

	Increase in short-term claims					Claims outstanding, December 1961
	1957	1958	1959	1960	1961	
A. Total payable in dollars.....	-350	-175	-99	-877	-1,414	5,427
Banks:						
1. Loans to foreign banks and official.....	-66	-192	-1	26	-201	1,014
Canada.....	-12	13	8	-1	-3	9
Europe.....	-10	-39	56	-33	57	121
Rest of the world.....	-44	-166	-65	60	-255	884
2. Bank loans to other and collections outstanding.....	8	-110	-135	-91	-251	1,322
Canada.....	8	-81	-56	-14	-5	218
Europe.....	-20	-3	-5	-12	-64	251
Rest of the world.....	20	-26	-74	-65	-182	853
3. Other dollar claims.....	-269	58	74	-610	-597	1,789
Canada.....	3	-7	12	-10	-43	65
Europe.....	-84	54	110	-7	-56	151
Latin America.....	-159	18	28	-195	-28	498
Japan.....	-24	8	-91	-375	-444	999
Rest of the world.....	-5	-15	15	-23	-26	76
Nonfinancial corporations:						
4. Dollar claims.....	-23	69	-37	-202	-365	1,301
Canada.....	-1	19	-6	-25	-359	492
Europe.....	18	-12	-22	-132	5	377
Rest of the world.....	-40	62	-9	-15	-11	432
B. Total payable in foreign currency..	19	-62	14	-390	-153	893
1. Banks.....	28	-50	-38	-241	-109	585
Canada.....	-4	-17	5	-103	-90	249
Europe.....	6	-31	-20	-105	5	244
Rest of the world.....	26	-2	-23	-33	-24	92
2. Nonfinancial corporations..	-9	-12	52	-149	-44	308
Canada.....	-2	-9	7	-36	-22	84
Europe.....	-1	-2	37	-111	9	142
Rest of the world.....	-6	-1	8	-3	-31	82
C. Grand total.....	-331	-237	-85	-1,267	-1,567	6,320
D. Broker balances and adjustments..	55	74	8	-45	184	
E. U.S. short-term capital (net) (in balance of payments data).....	-276	-311	-77	-1,312	-1,383	

Source: Compiled from monthly data reported to the U.S. Treasury Department, most of which is published in the Treasury Bulletin (and/or in the Survey of Current Business); line E is from unpublished revisions of the Department of Commerce's balance of payments data.

in 1960-61. Furthermore, these items comprise roughly one-half the \$1,200 million increase in annual outflow when 1960-61 is compared to 1957-59, as shown in the third pair of columns of table 8. Indeed, nearly one-third of the increased outflow of 1960-61 as compared with 1957-59 is attributable to the special acceptance arrangements made by U.S. banks with Japanese banks and trading groups in these 2 years.

It would appear, then, that virtually all of the net outflow of U.S. short-term capital before 1960, and 50-60 percent of the much larger outflow of 1960 and 1961 (and indeed the first half of 1962 as well) consisted of export finance. Regression equations relating items A2 and A3 vis-a-vis the rest of the world on a regional basis with exports on a comparable regional basis, using quarterly data for 1957-61,

TABLE 8.—U.S. short-term capital outflow as reported by U.S. banks and non-financial corporations, annual average of 1957-59 compared with annual average of 1960-61

[In millions of dollars]

	Annual average				Change	
	1957-59		1960-61		1957-59 to 1960-61	
	Amount	Percent of total	Amount	Percent of total	Amount	Percent of total
Payable in dollars:						
Banks:						
Loans to foreign banks and official.....	-86	37	-88	6	-2	-----
Trade credit.....	-79	37	-171	12	-92	8
Other:						
Canada.....	3	(-1)	-27	2	-30	3
Europe.....	27	(-12)	-31	2	-58	5
Latin America.....	-38	17	-112	8	-74	6
Japan.....	-36	16	-409	29	-373	31
Rest of world.....	-2	1	-25	2	-23	1
Nonfinancial corporations:						
Canada.....	4	(-1)	-192	14	-196	17
Europe.....	-5	2	-64	5	-59	5
Rest of the world.....	4	(-1)	-28	2	-32	3
Payable in foreign currency:						
Banks.....	-20	9	-175	12	-155	13
Nonfinancial corporations.....	10	(-4)	-97	6	-107	8
Grand total.....	-230	100	-1,417	100	-1,187	100

Source: Same as table 7.

show a very close relationship between proportionate changes in claims outstanding and proportionate changes in exports (see appendix III). To the extent that such outflows were matched by increased exports which would not have been sold had short-term credit not been granted, they cannot be said to have contributed to our overall deficit.

It is, of course, impossible to determine what, in fact, might have occurred had additional short-term flows of some \$600 million a year in 1960-61—the minimum amount definitely attributable to export credits granted by U.S. banks—not been forthcoming. But we can at least get a picture of what was happening. U.S. exports, which had been \$19.3 billion in 1957, but had dropped to only a little over \$16 billion in 1958 and 1959, jumped to \$19.4 billion in 1960 and \$19.9 billion in 1961. Sales in 1958-59 and in 1960-61 were distributed as follows:

U.S. merchandise exports, regional breakdown of annual average, 1958-59 and 1960-61

[Millions of dollars]

	Annual average		
	1958-59	1960-61	Increase
Canada.....	3,661	3,763	102
Europe.....	4,705	6,730	2,025
Latin America.....	3,840	3,479	-361
Japan.....	887	1,540	653
Rest of the world.....	3,133	4,151	1,018
Total, world.....	16,226	19,663	3,437

While the increased European sales were made largely independent of credit, and Latin American sales dropped off in spite of additional short-term credits, the substantial increases to Japan and to the rest of the world sector were undoubtedly made possible to a large extent by the credit arrangements effected. In the case of both Latin America and Japan, a larger proportion of our exports going to these regions were being financed by short-term credits from U.S. banks in 1960-61 as compared with 1958-59, and both of these regions were generally short of dollars in 1960-61. In balance-of-payments terms, it seems likely that the increase in short-term credits for export financing in 1960-61 improved our situation rather than deteriorated it. Our situation would have been helped still more had the dollars been borrowed elsewhere—particularly in dollar-surplus European countries—and used to purchase our exports, but, at any rate, the dollars which were borrowed here did probably for the most part come directly back here.²⁸

Now what of the other short-term outflows which produced the marked shift in our accounts in 1960-61 as compared with 1958-59—the \$90 million swing in the “other” category of annual outflows payable in dollars (vis-a-vis Canada and Europe) as reported by U.S. banks, the \$280 million increase in annual outflow reported by non-financial corporations as being payable in dollars, and the \$260 million increase in annual outflow which was payable in foreign currency? What stimulated those capital flows? And can we say anything about their net effect on our balance of payments?

THE SIGNIFICANCE OF INTEREST RATES

The traditional view on these types of movements of short-term capital is that they are motivated largely by interest rate differentials. It is not surprising then that when U.S. short-term capital began to flow out at an alarming rate in 1960 and this continued in 1961, and further, the statistics showed that European short-term interest rates had moved substantially above short-term rates in the United States, people quickly put two and two together and concluded that “The emergence of significant differentials in short-term interest rates has resulted in an enormous outflow of U.S. private short-term funds.”²⁷

There can be little doubt but that interest rate differentials have played some role in the outflow of short-term funds from the United States over the last 2½ years. How significant that role has been has become a matter of considerable concern, for on this issue hinges the degree of freedom we may or may not have to pursue monetary policies in support of purely domestic economic objectives. If a 1, 2, or 3 percentage point change in short-term interest rate in this country can produce a \$500-\$1,000 million swing in U.S. short-term capital flows, that is one thing; if it can produce only a \$50-\$100 million swing, that is quite another.

²⁸ See app. III for the statistical relationships existing between U.S. short-term claims related to export finance and the value of exports vis-a-vis different regions of the world between 1957 and 1961. In general, the relationships are very close.

²⁷ Bernstein, *op. cit.*, 173. The importance of interest rate differentials was very heavily stressed both by Department of Commerce and Federal Reserve analysts in 1960 and 1961. In various summaries of our balance-of-payments situation, although there appears to have been some moderation of this view in more recent publications. Compare, for example, the press release put out by the Department of Commerce on Sept. 27, 1960 (“The rise [in net outflow of private capital] appears to have been mainly in funds seeking liquid investment abroad, in response to interest rate differentials * * *”), with the Survey of Current Business, March 1962, 21; and the Federal Reserve Bulletin of September 1962, 1130, with March 1962, 274-275.

To try to estimate the quantitative significance of interest rate differentials on recent short-term capital flows is a difficult task. There are many different types of short-term capital movements, and there is a whole assortment of interest rates which might have been involved. Furthermore, much may have depended on speculation about the future, that is, not on interest rates existing at the time movements took place, but on interest rates and security prices expected 1 week, 1 month, or 3 months hence.

Four principal types of independent variables would seem to be involved: (a) short-term interest rates on loans or securities payable in home currencies in Canada, the United Kingdom, and the United States—for which Treasury bill rates may serve as a general index; (b) spot foreign exchange rates of the U.S. dollar vis-a-vis the Canadian dollar and the British pound; (c) future rates for the U.S. dollar vis-a-vis these two currencies; and (d) interest rates on dollar deposits in Canada and in the "Euro-dollar" market. The first three are involved in attempting to assess interest rate effects on movements of short-term capital payable in foreign currency; the last concerns primarily movements of U.S. short-term capital which are payable in dollars.

Movement of funds payable in foreign currency—Consider first the movement of short-term funds into foreign currencies. If this movement involved simply a response to a narrowing and widening of short-term interest rate differentials, without regard either to spot exchange rates or forward cover, we would expect to find some general correlation between the amount of such flows and short-term interest rates. Since the Canadian spot exchange rate moved rather freely between 94 cents and \$1 up to the spring of 1962, and the United Kingdom official buying and selling rate has moved rather freely between \$2.78 and \$2.82 throughout the 1950's, it is difficult to conceive of short-term investments being made on the basis of interest rate differentials entirely independent of exchange rate considerations, even if the question of forward cover was not at issue. The profit on a 2 or 3 percentage point interest differential over a year period could easily be wiped out by a movement in the exchange rate. It is possible, of course, that an investor might feel that he had to keep liquid but had considerable latitude as to when he might withdraw funds, and in particular had some other special incentive for keeping these funds abroad such as might be involved in tax considerations. But normally we would not expect increases and decreases in U.S. short-term claims payable in foreign currency to be related solely to interest rate differentials among the main money market centers of Canada, the United Kingdom, and the United States.

It is perhaps not surprising, then, that various attempts on our part to find some statistically significant relationship between U.S. short-term claims payable in foreign currency and short-term interest rates alone, independent of exchange rate considerations, have been almost totally unsuccessful.

In the case of movements of capital to Canada, convertibility is not relevant; if interest rates alone were of prime importance in inducing such movements, one would expect to find some significant pattern running throughout the 1950's. But no such pattern could be found either for movements in claims reported by U.S. banks or movements

in claims reported by nonfinancial corporations.²⁸ It is true that Canadian and U.S. short-term interest rates did not diverge sharply one from another at any period in the 1950's. (See fig. 4.) But such movements as there were appeared to have little or no effect on U.S. short-term capital.

We have a quite different situation with respect to short-term capital moving from the United States to Europe. From figure 5 it can be seen that British and U.S. Treasury bill rates have deviated sharply from one another at various times during the 1950's, and that there have been substantial shifts in U.S. short-term claims payable in sterling. But it can be seen clearly that at least before 1959 claims outstanding tended to be high when the interest rate differential was small (toward the end of 1954, during the early part of 1957, late in 1958), and low when the differential was large. Furthermore, most of the claims outstanding were reported as deposits in London banks, not as holdings of short-term securities or as call loans with discount houses during this period.

With the coming of convertibility at the end of 1958, all this changed. There was some increase in claims in spite of a narrowing of the differential in 1959, but in 1960 we see a substantial widening of the differential and a substantial increase in claims, both as reported by U.S. banks and by U.S. nonfinancial corporations. And the increased bank claims were not increased deposit balances, but rather were reported as being in "other" than this form.

The trouble is that if one looks at the period 1959, 1960, and 1961 as a unit, no consistent pattern relating interest rates to capital flows emerges at all. In general, the outflow of U.S. short-term capital increased in 1959 when the differential narrowed, and decreased in 1961, when the differential widened. Regression equations involving quarterly or monthly data over the 3-year period and relating claims to the two interest rates or to the differential, with or without the trend variable, do not indicate any statistically significant relationship. The lack of any consistent relationship suggests something else was at work. We must turn to actual and expected exchange rate movements as a possible explanatory factor first.

One would think that if exchange rate speculation was an important phenomenon explaining movements of U.S. short-term capital into and out of foreign currency during the last 8-10 years, the speculation would likely be vis-a-vis the Canadian dollar. But a careful study of the upper two portions of figure 4 lends no support to this view whatsoever, with the possible exception of the movements during 1961 and early 1962, before the Canadian dollar was pegged in April. Even in this case, the movement into Canadian dollars occurred largely in the first half of 1961, whereas the Canadian dollar became really "cheap" only in June and in subsequent months. In other words, not only were people in 1961 not buying Canadian dollars because they were cheap, they were not buying them with any correct anticipation,

²⁸ See, for example, equations (36), (37), (51), and (52) in app. III. When claims are correlated with interest rates alone, correlation coefficients are very low, and regression coefficients do not meet normal significance tests. Correlation coefficients rise sharply when a linear trend variable is added, but regression coefficients prove to be insignificant. In other words, there was a strong trend involving an outward movement of funds, but this did not appear to be in any way related to interest rates. These relationships are based on data for the 20 quarters during 1957-61; the results were roughly the same for the 40 quarters over 1952-61.

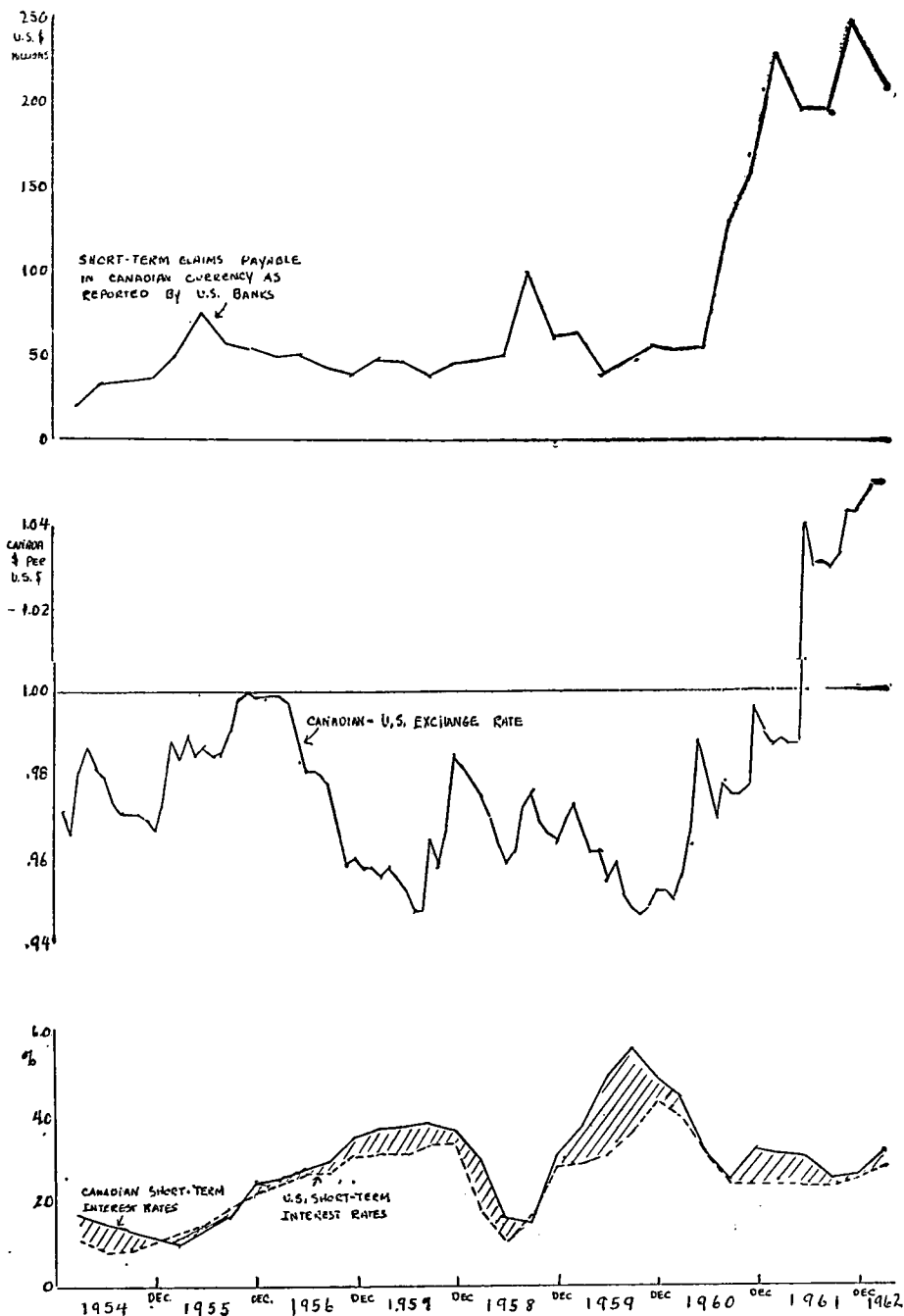


FIGURE 4.—U.S. short-term claims payable in Canadian currency, the Canadian-United States exchange rate, and Canadian and United States short-term interest rates, 1954-61

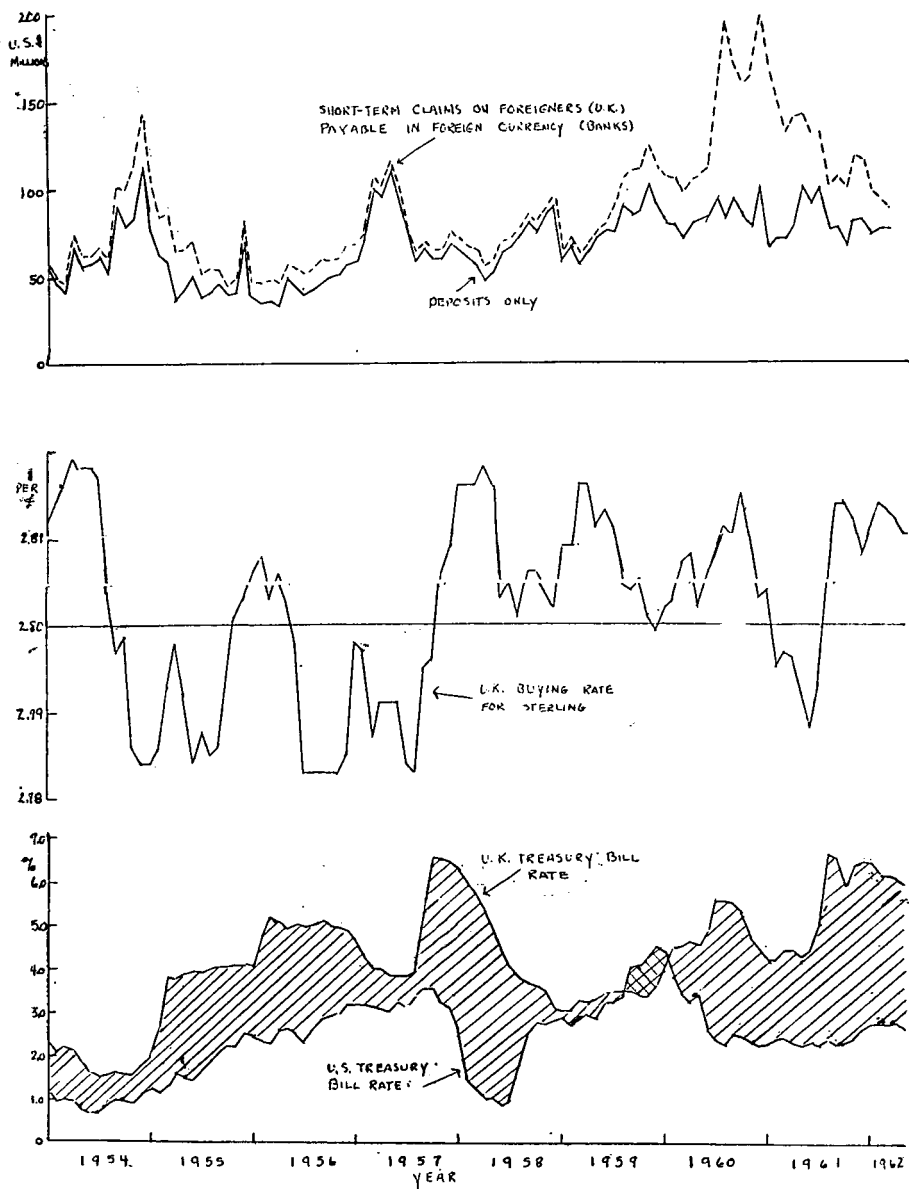


FIGURE 5.—U.S. short-term claims payable in sterling, the United Kingdom-United States exchange rate, and United States and United Kingdom short-term investment rates, 1954-61

at any rate, that they were going to become cheap. And this was generally true in years previous to 1961 as well.

Again, in the case of sterling the situation appears to be quite different. Study of figure 5 suggests that throughout the 1950's U.S. investors generally accumulated deposits in British banks when sterling was cheap and reduced these deposits when sterling was expensive. This is not a perfectly consistent pattern, but it is sufficiently consistent to be very suggestive. Movements in the official United Kingdom buying and selling rates for sterling certainly explain far better the changes in short-term claims as reported by U.S. banks than do movements in interest rates.

After convertibility, however, spot exchange rate changes per se are no longer adequate to explain the short-term capital movements vis-a-vis London. And here we must turn to forward exchange rates and the possibility that covered interest arbitrage was the dominant force at work. Analysis of monthly data for U.S. short-term capital movements vis-a-vis London as reported by U.S. banks for 1959-61 suggests that for this one type of flow at any rate, covered interest arbitrage may well have been an important consideration. Short-term claims in sterling comprise 80-90 percent of the total reported by U.S. banks as being payable in foreign currency vis-a-vis Europe as a whole during this period, and changes in the European total are almost entirely due to changes in claims payable in sterling. The magnitude involved is roughly \$100-\$125 million from the trough early in 1959 to peak at the end of 1960, as can be seen in figure 6. Although the movement month by month is not perfectly correlated with the covered short-term interest differential,²⁹ it is clear from the figure that there was a substantial increase in short-term claims in other than deposit assets, i.e., presumably invested in Treasury bills or with discount houses, beginning in July 1960, and these claims began to fall off after January 1961. During this 7-month period the covered interest differential went above 1 percentage point and stayed there; after January the covered differential dropped sharply although the uncovered differential actually became substantially larger; this was presumably because the spot exchange rate had risen to between \$2.81 and \$2.82 and could go no place except down, and possibly also because the fears about possible devaluation of sterling, either because of the generally weak British balance-of-payments position or because of expectations about Britain joining the Common Market. It is also possible that British authorities entered the forward market purposely to push down the forward rate.

²⁹ Regression equations for total claims payable in foreign currency vis-a-vis the United Kingdom ($Y_{1,t}$) and claims other than deposits ($Y_{2,t}$) as a function of the covered interest differential (X) and trend (t), using 36 months, 1959-61, yields the following:

$$Y_{1,t} = 90.4 + 21.4X + 1.20t$$

$$(8.04) \quad (.484)$$

$$R^2 = .318;$$

$$Y_{2,t} = 5.97 + 22.0X + 1.27t$$

$$(5.87) \quad (.353)$$

$$R^2 = .486.$$

The regression coefficients in the second equation imply that there was a strong trend involving an outward flow of short-term capital to Europe (on the average claims increased by \$1,270,000 a month, or by \$45,000,000 over the 36 months), and that a 1 percentage point rise in the covered interest differential produced a \$22,000,000 increase in claims, in addition to any increase as a result of the trend (the latter made possible perhaps by convertibility, and associated with increased working balance needs). Both regression coefficients are nearly 4 times their standard errors and thus easily pass statistical tests of significance.

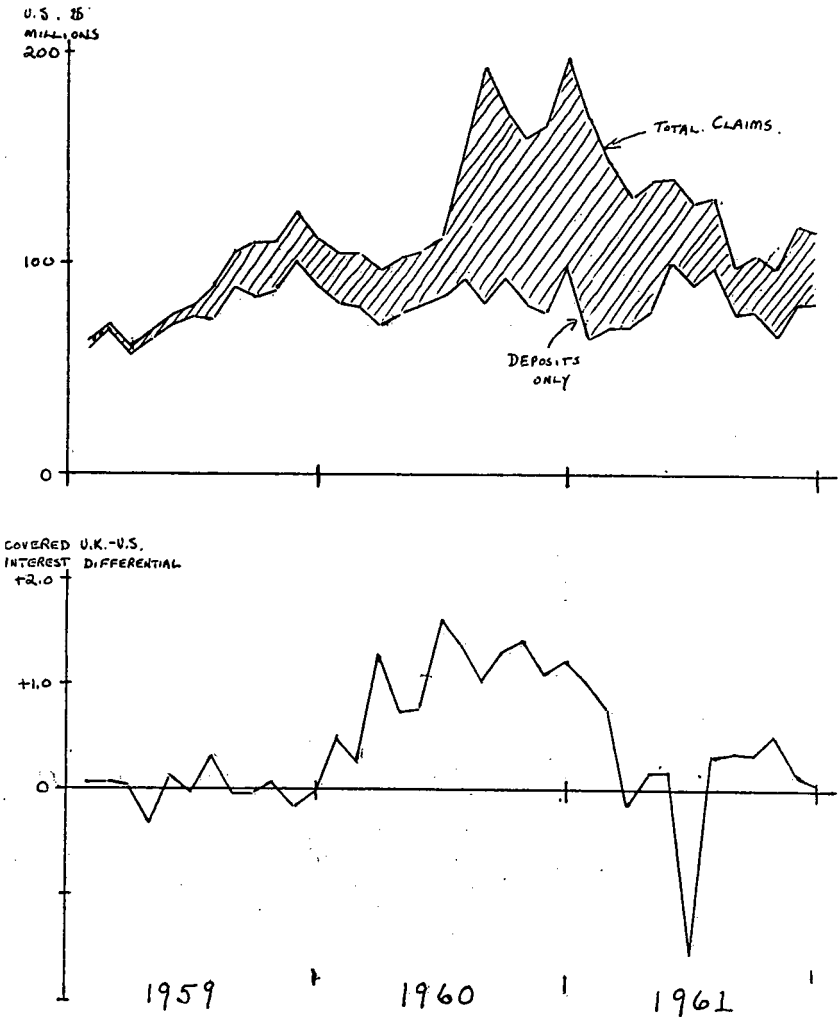


FIGURE 6.—U.S. short-term claims payable in sterling and the covered United Kingdom—United States short-term interest differential, monthly, 1959-61

Like the funds moving into and out of sterling reported by U.S. banks in 1960-61, those of nonfinancial corporations can also be linked to changes in the covered short-term interest differential, although any such relationship would appear to be less direct than in the case of bank funds, and more difficult to document since data on the short-term claims of nonfinancial corporations are available only on a quarterly basis. In general, however, there was an increase in short-term nondeposit claims payable in sterling held by nonfinancial corporations in the first, second, and fourth quarters of 1960 and in the first quarter of 1961, and these claims then dropped off during the last three quarters of 1961—a movement which runs in a roughly similar pattern to the change in the covered interest differential. It is not

clear where the funds went when claims in London were reduced during the last three quarters of 1961; we shall investigate the possibility that some moved into the Euro-dollar market below.

The maximum magnitude of funds involved in the total movement into and out of sterling during this period, on the part of both banks (probably mostly on behalf of customers) and nonfinancial corporations, which may be attributable to a widening and narrowing of the covered interest differential is probably around \$175 million.³⁰ And aside from this one experience, involving that magnitude of funds, little evidence can be found which would indicate that interest rates have been a substantial motivating influence in the movement of short-term U.S. funds into and out of foreign currencies. In the case of funds reported by both U.S. banks and nonfinancial corporations as moving into Canadian dollars beginning in the last quarter of 1960 and continuing through 1961 and early 1962, this occurred when the Canadian-United States differential was small, and the exchange rate movement was generally adverse. No significant relationship can be found between that movement and either the uncovered or covered interest differential, in Canada or in the United Kingdom, vis-a-vis the United States.

Movement of funds into "dollar deposits."—One of the most talked about phenomena concerning recent international financial developments is the growth of "dollar deposits" in Canada and in the so-called Euro-dollar market.³¹ Basically what is involved is that foreign banks, foreign branches of U.S. banks, and others have come to accept—and indeed invite—various types of demand and time deposits which are payable in dollars rather than in the currency of the country in which the bank is domiciled. The development is not really an astounding departure from tradition; an individual or corporation who wished to invest funds abroad could always more or less guarantee repayment in U.S. dollars by operations in the forward exchange market—he could exchange U.S. dollars for, say, sterling, plan to invest this sterling in the London market, and cover his exchange risk by buying dollars in the forward market. Foreign banks and others have now simply made this easier for him, in effect handling the whole operation for the U.S. or foreign investor.

There are two sources for "dollar deposits" abroad: (1) Dollars held by foreigners, earned, for example, through trade with the United States; (2) dollars sent abroad by U.S. corporations and individuals. The former implies simply switches in U.S. liquid liabilities; e.g., from foreign corporations (including U.S. subsidiaries abroad) or individuals to foreign banks for the most part. This

³⁰ Nondeposit claims reported by U.S. banks were already around \$25 million at the beginning of 1960 before any widening of the differential, and have not fallen below this figure since in spite of adverse interest rate movements; presumably these funds are related to larger working balances wanted by customers following convertibility. Thus, the maximum increase in claims reported by U.S. banks which might be attributable to the interest rate factor is \$75 million. The quantity of short-term claims of nonfinancial corporations which may be attributable to interest rate changes is somewhat more difficult to estimate; such claims reached a peak of \$150 million in March 1961, and have generally been above \$50 million since the middle of 1960—presumably tax considerations and/or working balance needs might imply that this latter figure is the minimum which might ordinarily be held regardless of interest rates, so that the maximum shift which could have been due to interest rates could be placed at \$100 million.

³¹ See, in particular, Alan R. Holmes and Fred H. Klopstock, "The Market for Dollar Deposits in Europe," Federal Reserve Bank of New York Monthly Review 42 (November 1960), pp. 197-202, and Oscar L. Altman, "Foreign Markets for Dollars, Sterling, and Other Currencies," International Monetary Fund Staff Papers 8 (December 1961), pp. 313-352.

aspect of the Euro-dollar market is considered under "Foreign Short-Term Capital" below. We are here concerned only with U.S. capital which goes abroad into "dollar deposits." How large is the gross and net outflow? And what motivates it? Later we will consider the effect of the flow on the balance of payments.

Unfortunately, we are stymied by poor statistics on our very first question. Increases in dollar deposits going through U.S. banks are reported as "other dollar claims" (line 3 of table 7) along with miscellaneous other items including a large amount of bank acceptances. Increases in dollar deposits held by U.S. nonfinancial corporations are included in the gross total figure for "dollar claims" (line 4 of table 7) along with a whole variety of other types of short-term claims. There is absolutely no way to separate them out.³²

Nor does the pattern of changes in the aggregate figures involved give us much of a clue. "Other dollar claims" vis-a-vis Europe and Canada as reported by U.S. banks have not generally been large, as can be seen from table 7. On the other hand, such claims vis-a-vis Europe showed a positive trend in 1957-59, but this turned negative in 1960-61. It is possible that repayment of European acceptance credits negotiated with U.S. banks were running in excess of new credits throughout the 5-year period, and that this net positive figure (evidenced in the data of 1957-59) was offset by a large negative figure indicating growth in dollar deposits in 1960-61.

There is more clear-cut evidence of growth in dollar deposits on the part of U.S. nonfinancial corporations than of U.S. banks in table 7: short-term dollar claims of nonfinancial corporations rose sharply in Europe in 1960 and then fell off, only to rise very sharply in Canada in 1961. The data which are available are not inconsistent with a growth of dollar deposits of between \$250 and \$500 million during the 2-year period 1960-61, but there is no real proof that such a growth in fact took place either.

Let us suppose that it did. Was the growth a response to interest rate movements? Here again we must concede that our information is too sparse for any definitive statement. But what evidence there is does suggest that the interest rate differential between dollar deposits in Europe and Treasury bills in the United States has been of some significance (perhaps in combination with other factors) in attracting some U.S. short-term capital funds from this country in 1960-61. But the funds attracted would seem to be only the funds reported by U.S. nonfinancial corporations, not those reported by U.S. banks. And again, it should be stressed, the evidence is very thin.

There are many privately quoted rates for Euro-dollars—in London, in Switzerland and elsewhere in Europe. One quotation, by a London financial house for successive quarters beginning in March 1959, nets the following differential for 3-month deposits in London and yields on U.S. Treasury bills: 0.45, 0.48, 0.81, 0.30; 0.31, 0.77, 1.20, 1.50, 1.37, and 1.18.³³ This differential very closely parallels

³² A revision in the Treasury questionnaire forms for both banks and nonfinancial corporations undertaken in 1962 will help considerably in the formulation of estimates of changes in dollar deposits. But no data are yet available.

³³ Altman, *op. cit.*, p. 326.

dollar claims in the United Kingdom of United States nonfinancial corporations, which rose in the third quarter of 1960 to a peak in the fourth quarter, and then fell off somewhat in the early part of 1961. Dollar claims of nonfinancial corporations seemed to follow this pattern of differentials, whereas claims payable in sterling seemed to follow the covered interest differential pattern, as explained in the previous section. The two differentials departed significantly from one another. Furthermore, we know that the dollar deposit rate in Europe generally tended to remain significantly above the U.S. Treasury bill rate throughout 1961 (whereas the covered yield in London did not); and we know that dollar claims of nonfinancial corporations tended to remain relatively high throughout 1961 (whereas claims payable in sterling held by these corporations rose only when the covered differential was falling). The evidence is weak, but it is there, such as it is. The maximum increase in recorded claims involved is a little more than \$100 million, although, as suggested in part IV of this study, the fact that unrecorded transactions in the balance of payments seem to follow closely these recorded transactions implies that the flow may have been significantly larger than this.

While the dollar claims vis-a-vis Europe of U.S. nonfinancial corporations thus appear to be related to interest rates, those reported by banks do not; these claims vis-a-vis Europe in general and the United Kingdom in particular rose in the third quarter of 1960, dropped sharply in the fourth quarter, and remained insignificant in the first two quarters of 1961, only to rise sharply again in the third quarter of 1961—a movement not paralleling at all the differential between Euro-dollars and U.S. interest rates.

Other types of short-term capital flows.—In considering the effect of interest rates on recent U.S. short-term capital movements, one has to take into account the possibility that at least some—and perhaps a great deal—of the major share of the total outflow which we have said was for the financing of exports was borrowed in this country rather than elsewhere, particularly Europe, because credit was generally easier and interest rates lower here than abroad. But the evidence collected in appendix III and summarized in table 9, as well as other considerations, make this possibility appear to be an unlikely one. By far the largest single borrower in this country, Japan, did draw heavily on the Euro-dollar market in 1959–60; there was considerable talk of that country being overextended in that market at the time, and it is doubtful that the Japanese could have gotten further funds in 1960 and 1961 had U.S. banks not come forth with financing. Many other borrowers, particularly in Latin America, have well-established financing channels with this country and probably could not have easily switched to European banks and financial houses had our rates been somewhat higher. Admittedly credit was generally tighter in Europe than in the United States, especially in 1960–61, but there appears to be no statistically significant relationship between interest rates here and in Europe and export finance generated in this country during the period, as can be seen from the summary of the evidence in appendix III provided in table 9.

TABLE 9.—*Summary of analysis of relationships between U.S. short-term claims and interest rates and exports*¹

Line in table 4	Short-term claim	Relationship to interest rates and exports
A1	Bank, "trade credit": Canada.....	Dominated by upward trend; level of exports to Canada and Canadian and United States short-term interest rates had no significance by themselves or together, nor did they have any influence on deviations from trend.
	Europe.....	Strong upward trend, exports to Europe not a significant factor; no real significance can be attached to United Kingdom and United States short-term interest rates, although covered differential may be of some minor importance.
	Rest of world.....	Dominated by exports to other than Europe and Canada; United Kingdom and United States short-term interest rates had no significance by themselves, in terms of deviations from trend, or in terms of influencing the residual not accounted for by exports.
A2	Bank, "other": Canada.....	Canadian short-term interest rate of some significance, not U.S. rate, nor level of exports; no marked trend.
	Europe.....	Neither United Kingdom and United States interest rates significant in measuring deviations from trend, nor in and of themselves; some significant relationship with level of exports to Europe.
	Rest of world.....	Strong relationship with level of exports, both in and of themselves and in terms of deviations from trend; no significant relationship with United Kingdom and United States short-term interest rates.
A3	Nonfinancial corporation, dollar claims: Canada.....	Dominated by strong upward trend; exports and interest rates had no significance in and of themselves, nor in terms of deviations from trend.
	Europe.....	Strong upward trend, but level of exports to Europe quite significant, both by itself, and in terms of deviations from trend; United Kingdom and United States interest rates of no significance whatsoever.
	Rest of world.....	Unusually strong relationship with uncovered United Kingdom short-term interest rate, considerably less significance for relationship with level of exports and with U.S. short-term interest rates.
B1	Bank, claims payable in foreign currency: Canada.....	Dominated by strong upward trend; interest rates had no significance in and of themselves, nor in terms of deviations from trend.
	Europe.....	Same as Canada, except that covered U.K.-U.S. differential important in determining deviations from trend.
	Rest of world.....	Largely the same as Canada and Europe, although United Kingdom short-term interest rate significant in terms of deviations from trend.
B2	Nonfinancial corporation, claims payable in foreign currency: Canada.....	Strong upward trend; interest rates not at all significant in and of themselves, nor in terms of deviations from trend.
	Europe.....	Same as Canada, except covered U.K.-U.S. differential important.
	Rest of world.....	No trend; interest rates not at all significant.

¹ See appendix III for detailed evidence which underlies table 9.*Balance-of-payments implications: A summary*

We have already suggested that the bulk of the U.S. short-term capital outflow over the last 5 years should not be thought of as being detrimental to our overall balance-of-payments position. The export finance which comprised 100 percent of the 1957-59 net outflow and 60 percent of the 1960-61 net outflow undoubtedly improved our basic balance (by financing exports which would otherwise not have been sold), and was at least "neutral" with respect to the overall or financial balance in the short run, probably favorable in the long run.

The balance-of-payments effects of the other types of outflows are much more ambivalent. About only one type of flow can we say with any degree of sureness that the effects are probably or at least may generally be expected to be adverse, viz, increases in short-term claims

payable in foreign currency going to Canada and to Europe. About 20 percent of the sharp adverse shift in recorded short-term flows between 1957-59 and 1960-61, or about \$250 million a year, was of this type. The balance-of-payments effects of the third major type of U.S. short-term capital flow—the increase in dollar deposits in Canada and in the Euro-dollar market—are not so clear, nor do we really know how large the movement has really been. It could comprise as much as 20 to 25 percent of the 1960-61 recorded outflow, or 30 percent of the adverse shift between 1957-59 and 1960-61, and so be running as high as \$350 million a year (which would imply that all of the increase in non-trade-credit claims vis-a-vis Canada and Europe on the part of both banks and nonfinancial corporations were of this variety). But more likely the proportion of recorded flows which actually comprises dollar deposits is somewhat less than this.

The question is, Do U.S. dollars which flow into dollar deposits abroad actually stay abroad, or do they come back immediately in the form of increased export proceeds, or possibly in some other way? We just cannot tell about this. The Euro-dollar market finances not only U.S. exports, but the exports of competitor countries as well. Only if our dollars which move there finance U.S. exports, and these exports would not have been financed in the United States, is there a clear-cut benefit to the balance of payments. If the U.S. dollars which flow to the Euro-dollar market finance U.S. exports which would have been financed here but are financed in Europe because credit is cheaper there, then the effect on the balance of payments would presumably be neutral. If the dollars finance exports of other countries, then clearly the effect is adverse, especially if these other exports compete with U.S. goods. On balance, there seems little reason to stimulate the flow of capital into dollar deposits abroad.

And so the question arises as to what has stimulated these flows of short-term U.S. funds into the money markets of Canada and Europe? We have suggested that there is little evidence that interest rate considerations are the primary motivating force: undoubtedly a widening and narrowing of U.S. and foreign differentials plays some role, but the evidence suggests in general that movements in U.S. short-term claims are not very sensitive to differentials, that at most perhaps \$100 million to \$200 million in annual flows is responsive to, say, a 1 to 2 percentage point change in differentials. What alternative explanation is there for the much larger movement in U.S. short-term funds in the last 2 years?

There would appear to be two possible alternative explanations. One is that with convertibility coming in Europe toward the end of 1958 and in early 1959 there was need for an opportunity to develop working balances for the extensive interrelated economic activities expected and already developing between the Common Market and the United States. European banks and others invested heavily in both short- and long-term U.S. securities in 1959; U.S. banks and others were slower to respond, but the widening interest rate differential and the sluggish U.S. economy made 1960 a propitious year to start. The fact that there appears to have been little systematic playing of the interest rate game implies that funds were not being moved primarily to take advantage of higher yields but rather for other purposes, with the higher yields perhaps serving as an added, but secondary inducement.

The second alternative explanation, which probably has more to do with the capital movement reported by nonfinancial concerns than that reported by banks, involves the various types of tax inducements which exist for companies with overseas operations to send capital abroad and to keep capital abroad. We are thinking particularly of tax haven operations where they involve investment in liquid assets, through corporate subsidiaries in countries which do not tax income earned outside the borders of the country. Such movements would be recorded as direct investment through changes in inter-company accounts, if they were recorded at all. Our point in stressing the issue here is that in part IV of this study we show that unrecorded transactions in balance-of-payments data appear to be closely related to the types of short-term capital movement being considered here, and it is possible that, since no consistent pattern can be found relating these flows to interest rates, and thus errors and omissions to interest rates, it may be tax considerations which are the primary stimulus. Section 13 of H.R. 10650 as amended in the Senate should help to close some of these tax loopholes.

We are thinking also of the inducement established by the possibility of offsetting unused tax credits against interest income earned abroad. It is believed that a number of companies, even before the Canadian Government instituted its special 15 percent withholding tax on dividends thereby sending the statutory corporate tax rate on income distributed by U.S. companies in Canada to 57½ percent, may have had excess tax credits on consolidated foreign operations or on operations in some individual countries—particularly, perhaps, some petroleum companies. Interest rate differentials would have to be substantial indeed to outweigh tax considerations if one income was to be taxed 52 percent, the other income at a low rate or not at all because of unused tax credits. The amendment to H.R. 10650 proposed by the Treasury Department in the Senate, which would separate interest income from other income in tax credit computations, should alleviate this situation.

FOREIGN SHORT-TERM CAPITAL MOVEMENTS

Movements in the basic components and balance-of-payments implications

A summary picture of changes in our liquid liabilities to foreigners for the period from the end of 1956 to the end of 1961 is presented in table 10. Approximately 70 percent of the more than \$7.7 billion growth in our short-term liabilities over this period accrued to individuals, banks, and official bodies of foreign countries, while 30 percent accrued to international institutions (a little less than half of this to the International Monetary Fund). Of that accruing to countries, 65 percent of the more than \$5.3 billion increase involved additional liabilities to Canada and Europe, and 88 percent of the total increase involved additional liabilities to Canada and Europe combined. Furthermore, around 40 percent of the increase in our liquid liabilities to other countries, something over \$2 billion represents new, privately owned dollar assets on the part of commercial banks and individuals.

For the most part, these movements must be thought of in residual terms, as an effect rather than a cause of our present balance-of-pay-

TABLE 10.—Changes in U.S. liquid liabilities owed to foreigners, 1957–61

[Millions of dollars]

Ownership	Increase during year					Out- standing Decem- ber 1961
	1957	1958	1959	1960	1961	
1. International institutions:						
IMF.....	-367	17	604	741	-135	-----
Other.....	263	283	144	395	461	-----
Total.....	-104	300	748	1,136	326	-----
2. Foreign official (national).....	20	735	928	1,121	652	-----
Total, official and international.....	-84	1,035	1,696	2,257	978	-----
3. Foreign commercial banks.....	50	48	1,140	104	615	-----
Total, banks, official, and inter- national.....	-34	1,083	2,836	2,361	1,593	-----
4. Other and undetermined.....	312	171	176	-138	126	-----
Grand total.....	278	1,254	3,012	2,223	1,719	-----
Less U.S. Government bonds and other long-term.....	-52	31	129	289	450	-----
U.S. Short-term liabilities.....	330	1,223	2,883	1,934	1,269	-----
Regional breakdown, U.S. short-term liabilities						
5. Official (national) and banks.....	-132	831	1,549	1,402	1,338	16,247
of which: Canada.....	76	363	160	308	314	2,466
Europe.....	159	387	719	735	1,122	9,424
Rest of world.....	-367	-119	670	359	-98	4,357
Other.....	266	171	-13	-186	139	2,358
of which: Canada.....	29	22	33	-70	8	279
Europe.....	244	-18	-14	-95	44	763
Rest of world.....	-7	167	-32	-21	87	1,316
7. Total, all countries.....	134	1,002	1,536	1,216	1,477	18,605
of which: Canada.....	105	385	193	238	322	2,745
Europe.....	403	569	705	640	1,166	10,187
Rest of world.....	-374	48	638	338	-11	5,673
Grand total.....	199	1,029	3,150	2,011	1,328	22,409

Source: Upper portion of table from revised data (as yet unpublished) supplied the author by the Department of Commerce. Lower portion of table is computed from the preliminary figures given in appropriate Treasury Bulletins. There is a discrepancy between the two sets of figures, in part, because one is based on preliminary data, one on revised data, and, in part, because of certain other changes made in Treasury data by the Department of Commerce for balance-of-payments tables for which full account could not be made here.

ments difficulties. Increases in our liquid liabilities plus any outflow of gold simply measure the extent of our overall deficit on international account. Decisions on the part of foreign holders to move into or out of dollar reserves may, however, affect our gold positions. And if any movement does affect our supply of gold, it will tend to have an automatic effect on money supply in this country which will have to be offset by Federal Reserve authorities and/or the Treasury Department if the change in money supply is deemed undesirable.³⁴

³⁴This is a consideration which often seems to be neglected in our thinking about balance-of-payments problems. If the United States runs a deficit, and this is reflected in a loss of gold, there is automatically a contraction in the supply of money and in bank reserves (thereby possibly forcing a multiple contraction in money supply) unless the gold loss is offset by monetary authorities. We are subjected to automatic disciplinary forces, and conscious action must be taken to negate this pressure. When, however, the deficit is reflected in increased liquid liabilities, no such disciplinary pressure exists unless foreigners increase their holdings of U.S. Government securities and the supply of such securities is increased to accommodate them. If the supply is unchanged, foreigners receiving dollars simply give them back to U.S. residents in exchange for securities, and there is no effect on bank reserves or on the money supply. (There may be interest rate effects as a result of the exchange of securities, but no money supply effects.)

Finally, even if changes in ownership have no effect on our stock of gold, they may influence the balance of payments by activating or deactivating dollar balances, that is, a change in ownership may increase or decrease the likelihood that balances will be spent on U.S. goods and services, or on long-term securities, which would then affect our basic balance as well as our financial or overall balance.

There are reasons, then, to be concerned about existing holdings and changes in holdings of our liquid liabilities. And this is particularly true when more than one financial center exists in the world. If there exists a single, dominant world financial center, a role London fulfilled in the 19th century, and almost everyone keeps balances there, any decision to move into or out of a liquid asset of the financial center involves simply changes in reserve holdings—from one country to another, between private and official owners of the same country, or between two private owners. The only change which can affect the balance of payments of the financial center is a shift on its own account. With two main financial centers today, and a number of smaller sub-centers—in Switzerland, Canada, France, and Germany—the possibility is opened up for the switching of foreign reserves, for example in response to changing interest rate differentials, or more likely for simply a building up of balances in one center rather than another as foreign exchange reserves are accumulated, thereby altering the ratio of reserves held in different foreign centers. Even if there is close co-operation among the financial centers, something which the United States has done much to promote during the last year or two, switching operations may have significant effects on the balance-of-payments position of financial centers. Even if one center grants credit, in effect, to another to offset the effect of switches on gold holdings, the very fact that credit is being granted will be known, and this may lead to speculation and further shifts in short-term funds.

Switching operations and the significance of interest rates

And so we are faced with the twin questions: How much switching of funds from one financial center to another has taken place in recent years, and has whatever has occurred been in response to changes in interest rate differentials or to other factors? In an interesting study of the movement of such funds, Robert F. Gemmill of the Federal Reserve System found that the amplitude of the fluctuations about the trend from peak to trough in dollar assets held by foreign commercial banks and other private parties during the past few years has been between \$600 million and \$1 billion. Since little evidence could be found that foreign official reserves were switched, this range was suggested as the maximum amount of switching which may have occurred. Gemmill found a relatively high correlation between deviations from trend for these private foreign balances and interest rate differentials, but he suggests that two other considerations may well have swamped the interest rate factor, viz, the need to build up working balances in the United States consequent upon convertibility in Europe, which we alluded to in discussing foreign purchases of U.S. long-term securities, and probably a speculative movement against the dollar in late 1960 and early 1961, which could explain the large absolute decline in privately held liquid dollar assets during this 6-month period.³⁵

³⁵ Robert F. Gemmill, "Interest Rates and Foreign Dollar Balances," *Journal of Finance* 16 (September 1961), 363-376.

TABLE 11.—*Estimated world national holdings of gold, liquid dollar assets, and other foreign exchange, 1956-61*

[Millions of dollars]

	End of period											
	1956	1957	1958	1959	1960				1961			
					I	II	III	IV	I	II	III	IV
Official:												
Gold.....	14,027	14,493	17,493	18,363	18,388	18,742	19,425	20,246	20,622	20,777	21,338	21,918
Foreign exchange.....	19,785	18,950	19,230	19,175	19,405	20,515	21,300	21,600	22,195	22,220	22,450	22,480
Of which:												
Dollar assets.....	8,612	8,300	8,557	9,419	9,152	9,725	10,263	10,524	10,536	10,264	11,236	11,104
Other.....	11,911	11,204	10,736	10,201	10,577	11,114	11,361	11,400	11,983	12,310	11,588	11,578
Ratio: dollars/gold.....	.614	.573	.489	.513	.498	.519	.528	.520	.511	.494	.526	.507
Ratio: dollars/foreign exchange.....	.435	.438	.445	.491	.472	.474	.482	.487	.475	.462	.500	.494
(Commercial banks: Foreign exchange.....)	5,705	6,303	6,852	8,118	(1)	8,700	8,764	8,930	9,514	10,349	(1)	(1)
Of which:												
Dollar assets.....	3,187	3,472	3,519	4,678	5,067	5,261	5,340	4,818	4,712	5,288	5,418	5,422
Other.....	2,142	2,744	3,210	3,407	(1)	3,406	3,391	4,043	4,733	5,106	(1)	(1)
Ratio: dollars/foreign exchange.....	.559	.551	.514	.576	(1)	.605	.609	.540	.495	.511	(1)	(1)
Other foreigners dollar assets.....	1,981	2,247	2,418	2,405	2,243	2,252	2,230	2,219	2,107	2,199	2,226	2,358

¹ Not available.

Source: Official gold, total foreign exchange reserves, and dollar assets and the total foreign exchange reserves and dollar assets of commercial banks, are compiled from the

latest estimates for each period published in the International Monetary Fund, International Financial Statistics. Data on official and bank holdings of dollar assets are published in the Treasury Bulletin as a single unit.

Using a slightly different approach, we have tried to analyze the degree of switching of foreign exchange reserves which might occur in response to interest rate differentials by considering how the composition of foreign assets around the world has varied with movements in short-term interest rates. Table 11 shows, first of all, that between 1956 and 1958 foreign central banks and other official bodies tended steadily to increase the ratio of both gold and dollars relative to total foreign asset holdings, and that this ratio of both gold and dollars to total asset holdings was relatively constant through 1959, 1960, and 1961 although there was a movement away from dollars into both gold and other foreign currencies—presumably sterling—during the period of substantial speculation against the dollar, evidently sparked by a fear that the United States might devalue, in late 1960 and early 1961.

The behavior of the group holding the second largest portion of liquid dollar assets—foreign commercial banks—follows a somewhat different pattern. It appears that banks steadily lowered the ratio of dollars to total foreign exchange reserves between 1956 and 1958, increased the ratio substantially again following convertibility (the increase comprising mostly increased holdings of European commercial banks), and dropped the ratio even more sharply than did central banks during the last quarter of 1961 and first quarter of 1962. The 10 percentage point drop during this period implies a loss of around \$500 million in U.S. liquid liabilities; whether this in fact meant a gold loss of that amount depends upon what the recipient central authority, in the bank's own country or elsewhere, did about its increased foreign assets, i.e., whether it decided to increase its gold stock, its dollar assets, or its exchange reserve in nondollar currencies.

An "aggregative" approach to the "switch" problem can hide a multitude of sins. Perhaps reserves were simply moving from countries which do not hold the bulk of their reserves in dollars (sterling area countries, for example) to countries which do, and this movement was reversed toward the end of 1960 and in early 1961. In an attempt to scrutinize the switching problem more closely, we have analyzed the behavior of some 23 countries, tracing the relationship between the ratio of dollar assets to total foreign exchange reserves and the short-term interest rate in London and New York, and the relationship between this ratio, short-term interest rates, and total foreign exchange reserves of the country, using quarterly data for the period 1957-61. The results are given in appendix IV. A few countries—Belgium, the Netherlands, Mexico, and Peru, for example—do seem to be responsive to interest rates here and in London, and build up and draw down exchange reserves in one center or the other accordingly (assuming that the residual foreign exchange not in dollar assets is in pounds sterling, although there is no way to know this for sure). But most countries seem either to maintain a relatively fixed ratio of dollar reserves to total foreign exchange reserves, or to alter this ratio in some regular and systematic fashion in accordance with the level of their total reserves.

There thus appears to have been only a small amount of switching of foreign exchange reserves around from one country to another—presumably primarily between London and New York—in response to movements in interest rates in recent years. As in the case of U.S.

short-term claims, the fact that higher short-term rates prevailed abroad may have aided and abetted the speculative movement out of dollars in the fourth quarter of 1960 and first quarter of 1961, but it seems doubtful that interest rates caused the movement per se. The short-term interest differential between London and New York was large on either side of this period of speculation, but relatively small during the period. (Behavior of the covered interest differential in London would seem to be less important in the case of foreign short-term capital movements than in the case of U.S. short-term capital movements, although little is known about the extent to which foreigners may cover their balances forward.) Furthermore the spot price of sterling fell steadily from September of 1960 to May of 1961 so that people who switched funds suffered at least short-run losses.

IV. "ERRORS AND OMISSIONS" AND PRIVATE CAPITAL MOVEMENTS

One of the serious, continuing problems for balance-of-payments analysts and policymakers has to do not with what is recorded in the official statistics (although as we have seen, there are indeed many difficulties in this respect), but rather with what is not recorded—with the residual item entered at the bottom of balance-of-payments tables which is termed "Unrecorded Transactions" or "Errors and Omissions."

A balance-of-payments table must, by tradition, "balance," just as a corporation's balance sheet must "balance," or a profit-and-loss statement must show income equal to expenses plus profit. Data for balance-of-payments statistics are collected from a variety of sources; some of these data comprise estimates of a population based on sampling; some comprise piecing together information from a variety of sources with respect to a particular item; and we know that there are some types of payments and receipts which escape even estimation, for no information is available even for an estimate. It is not surprising, then, that when everything is added up, "debits" do not equal "credits," and a residual net item entitled "Errors and Omissions" is entered to indicate this lack of balance. It is important to emphasize that the figure entered as "errors and omissions" or "unrecorded transactions" is in fact simply a net residual. The procedure can be misleading in that it may seem to imply that all unrecorded transactions during any given period are in one direction, whereas in fact there may be much larger flows in both directions; the flow in one direction, for example, arising from unrecorded transactions on current account; the flow in the other direction arising from unrecorded transactions on capital account.

From the point of view of analysis and policymaking, it is not the existence of the "errors and omissions" item which is crucial, but rather it is changes in the item. If every year unrecorded transactions proved to be a stable figure, say +\$600 million, we could count on it. We might like to know what transactions we were not catching, but the fact that we were not catching them would not prove to be too serious in the formulation of policy. In fact, however, the change in "errors and omissions" from quarter to quarter or from year to year has often been quite large for the United States—sometimes the change in "errors and omissions" has exceeded the change in either the basic balance or in

the overall balance or both. Understanding the nature and cause of these becomes a matter of vital concern for the analyst and policy-maker.

The "errors and omissions" item in our balance-of-payments statistics was substantially positive throughout the 1950's, but turned negative in 1960 and 1961. Many people have suspected that movements in this item, perhaps particularly the change during the last 2 years, represent largely movements of otherwise unrecorded private capital, in particular short-term private capital. There are two logical reasons for this suspicion.

First, it is known that the coverage of residents making short-term investments overseas is inadequate. In particular, the movement of funds by individuals dealing with foreign banks is not reported at all, and the number of nonfinancial corporations providing information to the Treasury Department on their short-term claims on foreigners and short-term liabilities to foreigners on a quarterly basis is considerably less than the number of firms actually involved in transactions which give rise to such claims.³⁶ Second, the coverage of claims of those residents who do report to the Treasury Department is inadequate. This inadequacy can be seriously misleading because of the way in which data on short-term capital flows are put together.

The statistics for most balance-of-payments items are collected for flows during a period; the statistics, such as they are, on which short-term capital movements data are based comprise stocks at the end of a month or quarter. Therefore, the flow of short-term capital as shown in the balance of payments is measured by subtracting from the stock of claims outstanding at one date the stock outstanding at some previous date. Suppose deposits payable in foreign currency, either those reported by U.S. banks or by U.S. nonfinancial corporations, rise from the end of one quarter to the end of the next, then are lower at the end of the following quarter. Balance-of-payments statistics record a short-term capital outflow during the first quarter, and an inflow during the second quarter—as if the funds came back to this country. But there would seem to be no real reason to assume that that is what actually happened; the foreign deposits may well have been turned into another kind of foreign asset.

If the foreign deposits were used to buy out a foreign firm, and the U.S. firm making the purchase was one of those reporting to the Commerce Department on its direct investments, both sides of the movement from one type of foreign asset to another will be recorded in balance of payments statistics.³⁷ But if the deposits were used

³⁶ At present, about 600 firms report quarterly on the Treasury Department's C form, whereas 1,000 firms report to the Department of Commerce on their oversea investments. Some U.S. parent firms which have oversea branches or subsidiaries may never hold any outstanding short-term claims against foreigners or have any outstanding short-term liabilities owed to foreigners, but it seems unlikely that many firms would be in this position. On the other hand, firms doing an export business but not having branches or subsidiaries abroad would not report to the Commerce Department but probably should be reporting short-term claims and liabilities to the Treasury Department. The Treasury Department knows that its present coverage is inadequate and is in the process of adding 200 new firms reporting on the C form, but we suspect that even with these additions, given the enormous growth of export trade companies and others in various tax haven regions of the world in recent years, the coverage will still prove to be inadequate. The Treasury Department statisticians, working closely with statisticians at the Commerce Department and at the Federal Reserve Bank of New York, are well aware of the problem and are doing everything they can to remedy the situation, but there will probably be a continuing lag in coverage over a number of years because of the rapid growth of U.S. firms doing business abroad.

to buy short- or long-term securities through a foreign broker, or if the bank assets abroad are changed from a "reporter" to a "non-reporter" (from the name of a U.S. bank to the name of a U.S. individual, or from a U.S. company which reports to a related U.S. company which does not [the tangled web of holding companies, branches, and subsidiaries in some foreign operations is almost impossible to untangle]), then only the decline in short-term claims will be a "recorded" transaction in balance of payments statistics; the offsetting increase in foreign assets owned by a U.S. resident which is a capital outflow will actually be entered as an "Error and omission" item.

If changes in "Errors and omissions" are in fact unrecorded changes in short- or long-term capital movements, one would suppose that the movement in the item from year to year, or from quarter to quarter, would be associated in some consistent manner with changes in recorded capital movements, and not be consistently associated with changes in other balance of payments items which might serve as an alternative explanation. There are considerable difficulties, however, involved in attempting to test these relationships in any rigorous statistical fashion.

In the first place, even under the best of circumstances it is difficult to put together data over a reasonable timespan which will be meaningful data, i.e., data which are not dominated by "special" considerations such as the existence of foreign exchange controls and the like. In the second place, since the "Errors and omissions" item is in fact a residual figure, any revisions made in any balance of payments item in a given year or series of years will have as its counterpart a change in the "Errors and omission" item; to get a consistent series for "Errors and omissions" or a long enough timespan to make reasonable statistical measurements is quite a task. There are some 40 or so lines in U.S. balance of payments statistics, including the "Errors and omissions" item; if 38 of these are put together on a consistent basis year by year over a 10-year period, but one—say travel—is not, there being a significant change in method of reporting, coverage, etc., in the middle of the period, this implies automatically that there is no consistent series for the residual "Errors and omissions" item, even over a timespan which is itself a much shorter one than we would like. This second problem is a real one with respect to U.S. data. While most of the continuing revisions in U.S. balance of payments statistics for the period 1952-61 tend to have had a relatively minor effect on the "Errors and omissions" item, one revision, involving direct investment in both directions following new census data in 1957, has had a very major impact. The change made for the year 1957 was to increase the figure for U.S. direct investment abroad by \$400 million, with an equal offsetting increase (positive) in the "Errors and omissions" item. In putting together an annual series, do we use the \$748

²⁷ The increase in deposits payable in foreign currency in the first quarter gives rise to an increase in our short-term claims on foreigners and an increase in our short-term liabilities to foreigners—owed for example to the bank which accepted the dollars and gave a U.S. resident a deposit in return. The transfer of the deposit to a foreign firm means that the decline in a short-term claim is matched by a rise in a long-term claim in the form of direct investment; the foreign firm is paid in foreign currency, and therefore there is no change in our short-term liabilities as a result of the transaction during the second quarter, and there is no change in "unrecorded transactions" since both sides of the exchange of one asset for another are recorded in the balance of payments data.

million figure for "Errors and omissions" in 1957, a figure which is consistent with the methods employed and data published for 1952-56, or the \$1,157 million figure, which is consistent with the data and methods of 1958-61?

There is still a third problem. We have given two reasons for believing that changes in "Errors and omissions" may reflect in large part unrecorded private short-term capital movements: (1) The coverage of residents making short-term capital transactions is probably inadequate; (2) the method of reporting by those which are covered may hide a substantial amount of transactions which are made by them, i.e., the coverage of claims by reporting residents may be inadequate. To the extent that there is inadequate coverage of reporting residents, we would expect a positive change in recorded U.S. short-term capital flows to be associated with a positive change in "Errors and omissions"; a \$100 million increase in recorded outflow into foreign deposits, i.e., a \$100 million larger negative figure for "U.S. short-term capital, net" in published data, might imply that the outflow actually increased by \$150 million, but \$50 million of this was unrecorded and so was entered as a negative amount under "Errors and omissions." On the other hand, to the extent that there is inadequate coverage of the claims of reporting residents—for example, to the extent that new short-term claims of \$100 million reported by U.S. residents represents a sale of foreign short- or long-term security holdings through foreign dealers and the building up of foreign deposits—a negative figure for "U.S. short-term capital, net" would be matched by a positive figure rather than a negative figure for "Errors and omissions."

The road to uncovering the extent to which changes in the "Errors and omissions" item in U.S. balance-of-payments data may in fact hide changes in private capital movements is thus heavily mined. We have thought that the significance of the objective has warranted attempting the trip; and we feel that the results achieved have made the attempt worthwhile, even if they only establish "rebuttable hypotheses," but on this the reader must decide for himself.

SOME AGGREGATIVE EXPERIMENTS

Let us begin with the assumption that the net figure for unrecorded transactions in U.S. balance-of-payments data comprises largely short-term capital movements, and that these unrecorded short-term flows move in response to the same stimuli as recorded flows, so that what is recorded as short-term capital movements simply understates the actual movement because of inadequate coverage of U.S. residents engaging in these transactions. Let—

\bar{Y} = errors and omissions (old series);

Y' = errors and omissions (new series);

X_1 = U.S. private short-term capital (net), as given in balance of payments tables; and

X_2 = foreign private short-term capital other than by banks and international institution (i.e., changes in U.S. short-term liabilities to foreigners other than to foreign banks and international institutions).

Then a simple linear regression for the 10-year period 1952-61 yields the following:

$$(4.1) \quad Y = 482 + .745X_1 + .836X_2 \quad R^2 = .835 \\ \quad \quad \quad (.148) \quad (.391)$$

$$(4.1)' \quad Y' = 522 + .818X_1 + 1.11X_2 \quad R^2 = .803 \\ \quad \quad \quad (.189) \quad (.498)$$

The number of observations is of course small (10); nevertheless, both regression coefficients meet the usual test of significance, U.S. short-term capital in particular being at least five times its standard error, and a correlation coefficient (R) of 0.90 is unusually high even given the fact that there are only 10 observations. It is unlikely that the posited relationship is due entirely to chance.

Perhaps more meaningful is a regression of first differences; for the change from year to year, 1952-53 to 1960-61, we have:

$$(4.2) \quad \Delta Y = -63.5 + .485\Delta X_1 + .922\Delta X_2 \quad R^2 = .785 \\ \quad \quad \quad (.156) \quad (.360)$$

$$(4.2)' \quad \Delta Y' = -15.1 + .596\Delta X_1 + .656\Delta X_2 \quad R^2 = .575 \\ \quad \quad \quad (.242) \quad (.492)$$

The old series for "Errors and omissions," before the substantial revision was made in the 1957 and 1958 data for direct investment on the basis of 1957 census data, proves to be considerably better than the new series in terms of first differences. Actual values for the change in "Errors and omissions" and values calculated from equation (4.2) are shown in figure 7. Note that the predicted values improve as we move away from the early 1950's, and in particular that they are reasonably close to the actual values for 1957 and 1958, the years which throw the second series off, as shown in figure 8. Experimentation shows that as we move closer to the present, U.S. short-term capital movements become a larger and more significant determining element in our equation, foreign short-term capital movements a smaller and less significant element, and in general the reliability of the equation improves. This is what we might expect because of the probable influence of foreign exchange controls abroad during the early part of the decade—controls which presumably led some foreigners to move capital in and out of the United States in a disguised manner.³⁸

Changes in "Errors and omissions" do appear to be consistently associated—positively correlated—with changes in short-term capital flows. But to be more sure of our ground, we have tried regressing changes in "Errors and omissions" with changes in other balance of payments items which might be likely explanatory candidates—changes in exports, in imports, in U.S. direct investment abroad, in various long-term portfolio items, in retained earnings of U.S. subsidiaries abroad, and a number of other variables—both with and without the short-term capital variables employed above. None of these

³⁸ In the series given by equation (4.2)', the multiple correlation coefficient (R^2) is 0.650 if the first year is dropped from the series, 0.684 if the first 2 years are dropped, 0.709 if the first 2 years are retained but 1956-57 and 1957-58 dropped.

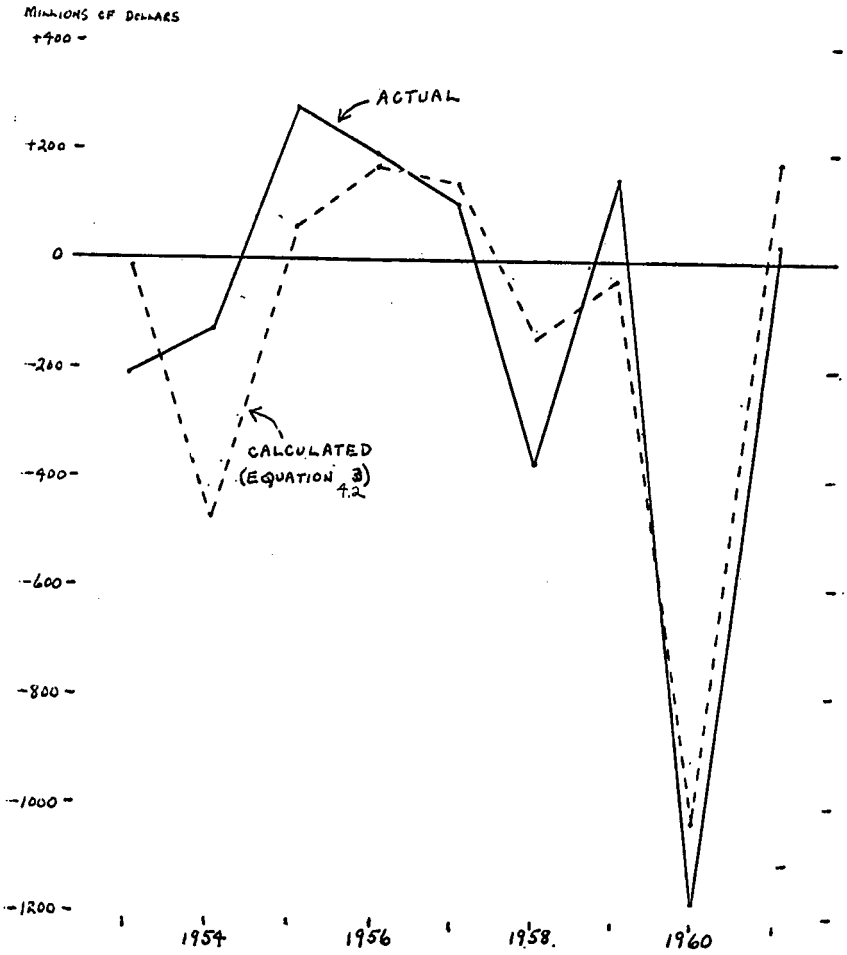


FIGURE 7.—Predicted and actual values for changes in errors and omissions (regression equation 4.2)

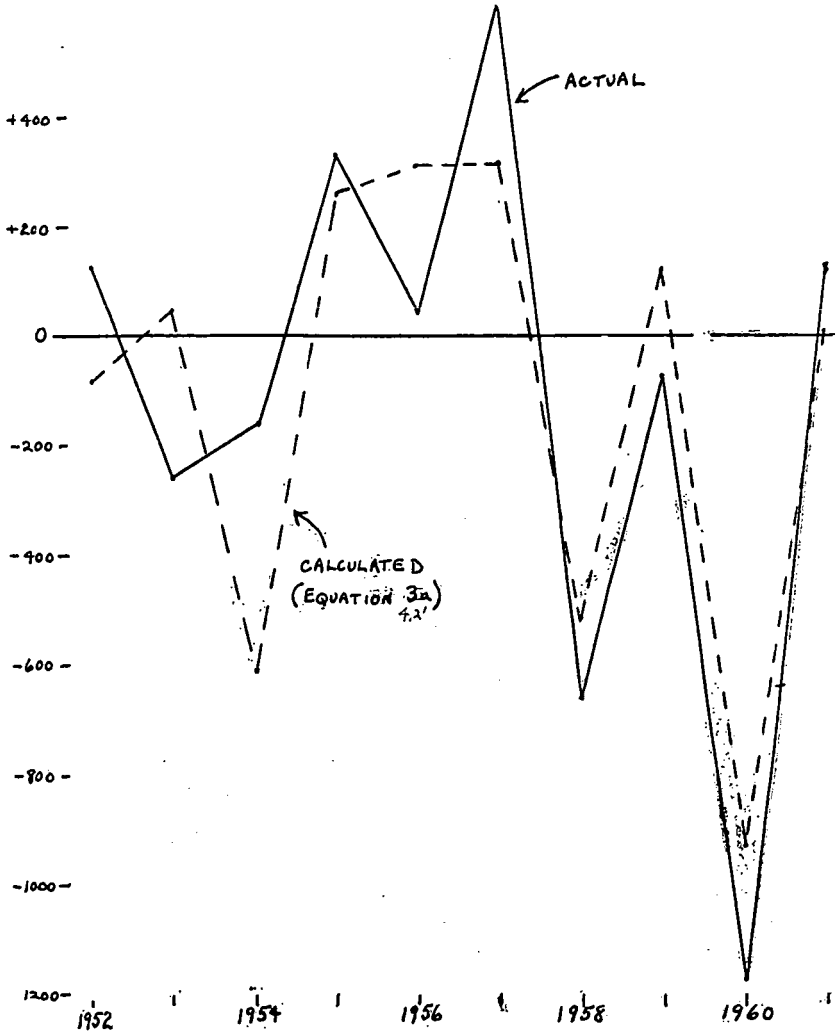


FIGURE 8.—Predicted and actual values for changes in errors and omissions (regression equation 4.2)

variables proved to be anything like as significant as changes in short-term capital flows as explanatory variables for changes in the "Errors and omissions" item. Although in certain cases direct investment and/or purchases and sales of long-term securities did appear to help explain movements in "Errors and omissions," they contributed only in conjunction with movements in U.S. short-term capital, the only variable which regularly and consistently proved to be of greatest significance, by far in all of the experiments tried.³⁹

Before delving more deeply into the nature of short-term capital movements which may be related to the "Errors and omissions" item, we should emphasize that what he have said thus far relates only to annual data. We have tried a number of experiments with quarterly data, using the most recent 20 or 35 quarters, along the lines of the above experiments with annual data. Not a single statistically significant relationship was found between quarterly "Errors and omissions" on the one hand, and quarterly data on short-term capital movements or any of the other variables on the other. This is not so unusual, nor so damaging to our hypothesis, as one might at first think. The Department of Commerce makes a number of rough estimates for quarterly data which are not made in annual data. For example, quarterly data on direct investment are collected from only 200 or so corporations whereas annual data are collected from 1,000 firms; the additional direct investment determined by the annual survey is simply distributed in equal amounts over the four quarters of the year in arriving at revised quarterly data, although admittedly there is really no reason to believe that the actual transactions were distributed in this way. But as we have pointed out, an error in any single balance-of-payments item normally affects the "Errors and omissions" item; if \$50 million direct investment which actually took place in the first quarter is placed in the second quarter as a result of the arbitrary allocation scheme described above, \$50 million will be added to "Errors and omissions" in the first quarter, subtracted from "Errors and omissions" in the second quarter.

The "Errors and omissions" item in quarterly U.S. balance of payments data thus probably includes a fair amount of simply random elements as well as elements which can serve to explain the item, and we have been unable to unravel one from the other. The evidence, such as it is, gives more weight to U.S. short-term capital flows than to foreign short-term capital flows, direct investment, or long-term portfolio investment, but as already indicated, the relationships and the differences in the relationships are not sufficiently significant to make detailed reporting of them worth while.

DISAGGREGATING THE U.S. SHORT-TERM CAPITAL VARIABLE

In order to try to track down the nature of the short-term capital flows which may be hidden in the "Errors and omission" item, we disaggregated the figure for "U.S. short-term capital (net)" into the main components given in the first section of part III of this study; namely, (1) loans by U.S. banks to foreign banks and official institutions; (2) a composite of other bank loans and collections outstanding

³⁹ Regression equations for some of the experiments tried are given in app. IV.

termed "trade credit"; (3) "other dollar claims" reported by U.S. banks, which contains a large amount of acceptance credits as well as some dollar deposits in Canada and Europe; (4) dollar claims of U.S. nonfinancial corporations; (5) claims payable in foreign currency as reported by U.S. banks; and (6) claims payable in foreign currency as reported by U.S. nonfinancial corporations. A series for each of these components was fashioned for Canada, for Europe, for Canada and Europe together, and for the world as a whole, for the 10-year period 1952-61. We then tried over 300 regressions relating the new and the old "Errors and omissions" series with each of the possible type of U.S. short-term capital movement and with combinations of these movements, with and without movements in foreign short-term capital, in order to try to find out which type or types of movement appeared to best explain the relationship found on an aggregative basis above.

What we found was that two types of short-term capital movements were markedly more significant than any of the others as explanatory variables for annual changes in "Errors and omissions": (1) Changes in the sum of dollar and foreign currency short-term claims vis-a-vis Canada and Europe as reported by U.S. nonfinancial corporations; and (2) the change in U.S. short-term claims payable in foreign currency vis-a-vis Canada as reported by U.S. banks. Let

Y = Errors and omissions (old series);

Y' = Errors and omissions (new series);

$X_{1.1}^{ce}$ = Change in total short-term claims vis-a-vis Canada and Europe as reported by U.S. nonfinancial corporations, with sign reversed so that an increase in claims is given with a minus sign to denote a capital outflow;

$X_{1.2}^c$ = Change in short-term claims payable in foreign currency vis-a-vis Canada as reported by U.S. banks, with sign reversed;

t = Trend.

Then,

$$(4.3) \quad Y = 447 + 3.82X_{1.1}^{ce} + 14.5t \quad R^2 = 0.902$$

(.590) (25.1)

$$(4.3)' \quad Y' = 510 + 4.32X_{1.1}^{ce} + 17.0t \quad R^2 = 0.846$$

(.860) (36.7)

$$(4.4) \quad Y = 308 + 12.8X_{1.2}^c + 36.1t \quad R^2 = 0.913$$

(1.84) (25.8)

$$(4.4)' \quad Y' = 385 + 13.5X_{1.2}^c + 31.7t \quad R^2 = 0.782$$

(3.39) (47.4)

When we disaggregated the change in claims as reported by U.S. nonfinancial corporations into dollar claims and claims payable in foreign currency, and each of these regionally, the relationship between each of these separate components and the "Errors and omissions" item was clearly less significant than indicated by equations (4.3) and (4.3)', (although interestingly enough, the change in dollar claims proved to be substantially more important as an explanatory variable than the change in claims payable in foreign currency, sug-

gesting the importance of operations in the Euro-dollar market). Furthermore, the relationship between changes in such claims vis-a-vis the whole world as a whole and "Errors and omissions" was significantly lower than the relationship shown above. The evidence thus suggests that a substantial portion of the unrecorded transactions in U.S. balance of payments data may be short-term capital movements vis-a-vis other industrial countries by U.S. corporations, and/or movements of short-term funds into and out of Canadian dollars by private citizens, U.S. corporations, and/or possibly U.S. banks.

Given the complexity of the relationships being considered and the limited number of observations, such evidence, if that is all there were, would be slim indeed. But the important point is that using the same techniques and the same number of observations, consistent, statistically significant relationships such as those above could not be found between "Errors and omissions" and any other type of short-term capital movement, nor could such a relationship be found between "Errors and omissions" and any balance of payments item other than short-term capital flows. With only one or two exceptions, other correlation coefficients were less than 0.50, the exceptions were never higher than 0.65, and the relevant regression coefficients proved not to be significant.

The next obvious step was to try a combination of the two short-term capital variables which had proved to be significant by themselves, with and without the trend variable. There was little or no improvement in the multiple correlation coefficient, and various experiments failed to pinpoint one or the other type of capital movement as being the more important determinant, although the regression coefficient involving movements by nonfinancial corporations tended to be generally of greater statistical significance than that involving movements of short-term funds to Canada through U.S. banks. Finally, a whole host of variables was tried with each of the above two, to see if alternative, or better explanatory relationships could be uncovered, all to no avail.⁴⁰

IMPLICATIONS

Let us, for the sake of discussion, divide the errors and omissions item, using both new and old series, for 1960 and 1961 into its component parts as given by equations (4.3) and (4.3)'. We would obtain very similar results were we to use equations (4.1) and (4.1)', or (4.4) and (4.4)'. We have:

	Old errors and omissions equation (4.3)		New errors and omissions equation (4.3)'	
	1960	1961	1960	1961
(a) Explained by movements of capital by U.S. nonfinancial corporations to Canada and Europe.....	-1,158	-1,236	-1,309	-1,398
(b) Explained by trend and constant term.....	462	462	527	527
Total predicted.....	-696	-774	-782	-871
Actual errors and omissions.....	-648	-616	-648	-616

⁴⁰ The author will be glad to try to make available to any interested persons the full results of the experiments conducted, both successful experiments and unsuccessful experiments.

The recorded short-term capital outflow to Canada and Europe by U.S. corporations in these 2 years was \$300 and \$325 million, respectively. The relationships given by our statistical findings on evidence going back to 1952 would suggest that between three and four times that amount actually flowed through these channels to other industrial countries, and that the total outflow of short-term capital during these 2 years was actually twice as large as the amount which was recorded as flowing out in U.S. balance-of-payments statistics.⁴¹

⁴¹ The reader may well suspect that our statistical relationships are in fact swamped by the developments in 1960 and 1961. It is most assuredly true that the statistical significance of our results is dependent upon the fact that there were very large movements in both errors and omissions and recorded outflows by nonfinancial corporations, in the same direction, in these 2 years. The general pattern of relationship with and without these 2 years is the same, however, even though it is not statistically significant for the period 1952-59 alone. For these 8 years we have:

$$(4.3a) \quad Y = 381 + 1.87 X_{1.1}^t + 24.2t \\ \quad \quad \quad (2.53) \quad \quad (3.06) \\ \quad \quad \quad \quad \quad \quad R^2 = .239$$

$$(4.3a)' \quad Y' = 523 + 4.46 X_{1.1}^t + 14.8t \\ \quad \quad \quad (3.80) \quad \quad (4.70) \\ \quad \quad \quad \quad \quad \quad R^2 = .258$$

The trend factor is clearly more important, while deviations from the trend are much smaller and cannot be said to be statistically significant. But the constant and trend terms are very similar to those given in equations (4.3) and (4.3)', and the regression coefficient indicates that the unrecorded movement of funds is between two and four times the amount of recorded movements as reported by nonfinancial corporations.

V. SUMMARY AND CONCLUSIONS

The central findings of this study may be summarized as follows:

1. Shifts in the flow of private capital, in particular in U.S. private capital flowing overseas, have been a major cause of our deteriorating balance-of-payments position since 1956. We do not say that the existing, large outward flow of capital is the source of our difficulties, and therefore corrective action must, of necessity, be taken in this sphere. Any item, positive or negative, can be singled out as the basic source of difficulty, thus necessitating correction—too few exports, too many imports, too much travel, foreign aid, etc. All that we have said is that U.S. private long- and short-term capital outflow increased by over \$2 billion between 1952–56 and 1957–61, while the basic balance turned adverse by \$600 million, the financial balance by \$1.3 billion.

Some of this increased outflow was immediately and directly offset by increased export receipts—a considerable portion of the increase in direct investment (perhaps as much as 20 to 25 percent) because it went to purchase equipment which was produced in the United States for new plant abroad, as well as probably at least one-half the net outflow of U.S. short-term capital, which went into export credits. Some of the increased outflow began coming back more or less automatically, but only after a delay—in the form of dividends and management fees in the case of direct investment capital, repayments in the case of export finance, and interest on new portfolio securities issued in this country. But at best it would seem that the increased annual outflows of \$2 billion a year in 1957–61 were being more or less directly offset by increased inflows on the average of only half that amount, so that the net drain of the private capital outflow on our balance of payments was still far and away the most important cause of our deteriorating balance-of-payments position unless unusually large favorable indirect repercussions were at work in the case of capital outflows, which did not exist for other types of increased outflows. It seems highly doubtful that this was in fact the case.

2. All types of U.S. capital outflow have contributed to the drain, with the exception of transactions in existing private long-term securities. Here the United States has more than held its own in recent years as foreign purchases of U.S. stocks and corporate bonds, mostly by Europeans, have run ahead of U.S. purchases of foreign stocks and corporate bonds, again mostly in Europe. In addition, foreigners have made substantial purchases of U.S. Government securities, some of which should be considered a private capital inflow.

The net 5-year drain of 1957–61 as compared with 1952–56 can be thought of as being split probably more or less equally, among direct U.S. investment outlays less directly related inflows; the excess of net purchases (mostly new issues) of new foreign securities by U.S. residents over and above foreign purchases of U.S. securities, less a small amount of interest receipts; and various types of short-term capital flows. But the timing of these three types of flows differs—new security issues in this country reached a peak in 1958 and then slackened off, direct investment reached one peak in 1957, another in 1960,

but has generally continued heavy, while substantial outflows of U.S. short-term capital did not take place until 1960-61.

3. Growth in U.S. direct investment, particularly in manufacturing operations in Europe (which alone comprises one-third of the increase in U.S. direct investment abroad between 1952-56 and 1957-61), has had a serious deteriorating effect on our balance of payments, and the effect will not be recouped for many years if the new, higher level of investment continues to increase, or even simply continues at the present level, which is probably the minimum annual outflow which can be expected. The evidence suggests that it takes 10 to 15 years before the related inflows catch up to a stream of investment outlays in European manufacturing operations, and the investment stream therefore begins to "pay off" in balance of payments terms. And if there is substantial substitution of the output of U.S. subsidiaries in Europe for U.S. exports, either to Europe or to the less developed countries, the "catching up" period will be lengthened considerably.

The full balance of payments effects of the other types of direct investment which have increased substantially in recent years—petroleum investment (including extensive investment in refineries and distribution outlets in Europe), which amounts to more than one-third of the total outflow between 1952-56 and 1957-61, and investment in mining, trade, and miscellaneous other facilities—cannot be readily measured because little is known of the volume of exports which may be related to this investment. Practically all drilling equipment comes from this country, however, and presumably an extensive amount of refinery equipment also does. Furthermore dividend returns have been relatively high in petroleum. It seems likely, therefore, that petroleum investment produces, net, a smaller drain than investment in manufacturing.

Investment in mining is very much related to U.S. needs. Here, as in the case of petroleum, there may be some substitution of U.S. imports for home production, with attendant adverse effects on the balance of payments—iron ore from Labrador and Venezuela rather than from Minnesota, lumber from Canada rather than from the Northwest, et cetera. In fact, however, it seems likely that most such shifts from domestic production to purchases from abroad would take place with or without the establishment or expansion of U.S. facilities abroad—because of structural considerations (perhaps U.S. resources, for example, are nearing physical or at least economic exhaustion). U.S. production of these products is not expandable, and therefore new demands with U.S. growth must be met from foreign sources. If U.S. facilities are not established overseas, we would be forced to buy from foreign producers. The balance of payments drain of such investment in general, then, is outflows less related dividend inflows less related exports (of capital equipment), not this plus imports substituting for home production.

Finally, there has been considerable direct investment in trade outlets abroad. Presumably such investment has a substantial favorable effect on U.S. exports, and therefore the balance of payments drain is small, if not negative.

4. Growth in the net outflow of funds between 1952-56 and 1957-61 involving investment in private long-term securities here and abroad was, at least on the surface, about two-thirds as large as the growth in U.S. direct investment. To some extent this net adverse flow was probably offset by an increased net inflow of funds, particularly from Europe but also from Canada, Latin America, and elsewhere, involving private foreign purchases of U.S. long-term Government securities. No information is available on who holds long-term U.S. Government securities abroad, and the Commerce Department simply includes any change in total holdings as a change in U.S. liquid liabilities in balance of payments statistics. But some portion, perhaps as much as a quarter, of the increase (between 1952-56 and 1957-61) should be treated as 'autonomous' private long-term capital and thus be put "above the line" in balance of payments data, offsetting part of the net U.S. outflow reported on private capital account.

The increase in net outflow on long-term portfolio account between 1952-56 and 1957-61 was due entirely to an increase in new foreign securities issued on the U.S. market, mainly Canadian and World Bank bonds. Net transactions in existing private securities favored the United States between 1952 and 1956, and was even slightly more favorable between 1957 and 1961. On a regional basis what has been happening is that an inflow of funds from Europe, involving purchases of U.S. securities and of foreign securities issued on the U.S. market, has offset about one-third of the outflow of funds to Canada and, directly or indirectly, to less developed countries of the world; these two outflows have involved both transactions in existing securities, in the case of Canada, and U.S. purchases of new issues, in the case of Canada, other countries, and the World Bank.

Throughout the 1950's long-term interest rates in the United States have been somewhat below long-term rates in the central money markets abroad—in particular, below rates in Canada and the United Kingdom. The evidence does not suggest, however, that these differentials have had a fundamental influence in inducing the flows which have occurred. Rather, the evidence suggests that foreign issues and purchasers of long-term securities in the United States made basic decisions to raise capital here, or to diversify their portfolios following the establishment of convertibility, and then to a considerable extent geared the timing of transactions to movements in long-term rates—in particular long-term rates in this country. Total net purchases of Canadian bonds by U.S. residents and net purchases of U.S. Government and corporate bonds by British residents both appear to bear little significant statistical relationship to absolute levels of interest here and abroad between 1957 and 1960, nor do they appear to be related to interest rate differentials. But deviations in these purchases from the general trend do appear to be closely related to interest rates when quarterly data are analyzed.

There are normally no directly related export inflows in connection with long-term portfolio investment. Nor do we have the phenomenon of reinvested earnings to consider in the manner that we did for direct investment. The cumulative flow of interest income would not be expected to match an original outflow for perhaps 15 to 20 years. If the outflow forms a continuous stream, then the "catching up" period beginning at any point in time lengthens; and if the outflow stream is increasing at a faster rate than the rate of interest on the securities,

inflows will never catch up to outflow, i.e. long-term portfolio investment would be a continuous drain on the U.S. balance of payments. While this last possibly has, on the average, been the case over the last decade, annual net outflows have been uneven, and establishment of any general pattern of growth is very difficult.

The direct balance of payments effects of increased net long-term portfolio investment in recent years has probably been alleviated to a considerable extent, however, by indirect effects—much more so than in the case of direct investment. For the increased outflow in net private portfolio capital has largely gone to Canada and to less developed countries. These regions have not been accumulating dollars; furthermore their propensities to spend new dollars directly in the United States is probably higher than is the case for Europe, where so much of the increased direct investment outlays has gone.

5. When we come to short-term capital movements, we find that the substantial growth in the net outflow of funds between 1952-56 and 1957-61 was practically all concentrated in the 2 years 1960-61. As is well known, this 2-year outflow reached astonishing proportions; the total adverse shift between 1957-59 and 1960-61 recorded on a short-term account amounted to approximately \$1.4 billion a year, \$1.1 billion of this resulting from an increase in the outflow of U.S. funds, \$0.3 billion of it resulting from a decrease in foreign private nonbank funds flowing into this country, a flow which in effect dried up in these 2 years. Our balance on long-term capital account actually improved slightly when 1960-61 is compared with 1957-59, but the sudden outflow on short-term account was nearly seven times the improvement on long-term account.

Our interest centers on the outflow of U.S. funds, for this accounts for 80 percent of the adverse shift. Movements of U.S. short-term capital involve many different types of transactions; but we can group them into three basic categories. First, there is credit granted foreigners by banks and nonfinancial corporations which is repayable in dollars; such transactions are largely negotiated here in this country, do not directly involve the foreign exchange market of foreign financial centers, and comprise largely loans which are used directly to finance U.S. exports. Second, there are movements of U.S. funds which do not directly involve the foreign exchange market but do involve foreign money markets; U.S. residents put funds on deposit in the hands of foreign banks, or foreign branches of U.S. banks, for 1 day, 1 month, 3 months, or 6 months, but these funds are repayable in dollars. These Canadian and European dollar deposits are then loaned through the Euro-dollar market to foreigners who desire credit in dollars—probably mostly, as in the case of the first type of credit, to finance purchases of U.S. exports. A final category of U.S. short-term capital involves both foreign financial centers and the foreign exchange market. U.S. dollars are exchanged for Canadian dollars or sterling (these two comprise the major share of movements of U.S. capital into foreign currency) and are either put on deposit with foreign banks or invested in short-term assets abroad.

Twenty-one percent of the increased outflow of 1960-61 as compared with 1957-59, or \$263 million a year on the average, involved this third type of capital movement, 8 percent comprising movement of funds to Canada, 8 percent movement to Europe (practically all of this going

to London), and 5 percent to other regions. A probable maximum of 30 percent of the increase of 1960-61 involved movements of funds of the second type, i.e. into dollar deposits abroad; the actual amount was probably not more than 15-20 percent of the total. The remaining 50-60 percent of the total outflow consisted of funds which in fact never entered the foreign exchange market and did not even leave the United States.

The statistical evidence as well as information from banks and others suggests strongly that the outflow of U.S. funds of the first type, comprising 50-60 percent of the total, is closely geared to U.S. exports. It is direct export finance. A sizable proportion of the funds going into dollar deposits in Canada and the United Kingdom is probably also used more or less directly to finance exports from this country, although such funds are widely used for many purposes, including the financing of transactions between two foreign countries. Only 20-25 percent of the outflow of 1960-61, probably amounting to less than \$300 million a year, comprised the type of movement which springs to mind when we think of short-term capital, viz, the exchange of dollars for foreign currency for purposes of interest arbitrage and/or speculation against the dollar.

The effect of these various types of flows on our balance of payments is not easy to measure. To the extent that the increased outflow of U.S. short-term funds in 1960-61 was used to finance U.S. exports which would not have been sold had financing not been available from this country, the effect of the flow on the balance of payments must be considered favorable: it could not be adverse. Furthermore, the financing then contributed favorably to income and employment in this country. But if the exports financed by U.S. funds would have been financed by, say, European capital rather than U.S. capital had the latter not been made available, then the effect of the flow of U.S. funds on the balance of payments may be considered adverse, although it would be adverse in an absolute sense only if the U.S. outflow displaced normal foreign financing. To the extent that the U.S. outflow was used to finance trade between two foreign countries, or was used to purchase foreign securities, the direct effect on the balance of payments would be adverse.

It is clear, then, that 20 percent of the 1960-61 outflow—that moving into foreign currency—probably adversely affected our balance of payments. But most of the remaining 80 percent probably had a favorable effect in the absolute sense mentioned above; i.e., it was additional financing, over and above the normal amount supplied by foreign sources, used for the purchase of U.S. exports. This was certainly true of the Japanese credits supplied directly from this country (which alone comprised 30 percent of the outflow); it is very probably true of the increase in export finance supplied Latin America and other regions outside of Canada and Western Europe (amounting to another 20 percent or more of the total); and it is probably even true of a good share of the new funds which went into the Euro-dollar market (where Japan was the largest borrower), although we cannot be sure about this.

The real question, then, is whether or not the flow of U.S. export finance was favorable in an opportunity cost sense; if U.S. funds had not been available, would not European funds have been forthcoming, allowing the increase in U.S. exports financed on credit to have a net

favorable effect, rather than a neutral effect (at least in the short-run) on our balance of payments? More specifically, did the fact of lower interest rates and greater availability of credit in this country as compared to Canada and Europe serve to channel borrowers needing trade financing to New York rather than to London, Montreal, or continental financial centers?

A priori we can again say that the answer to this question is pretty clearly negative in the case of the Japanese credits. Japan did borrow heavily in Europe; her lines of credit there were, if anything, over-extended; it was a question of U.S. funds or no additional funds at all. We can be less sure about the funds made available directly to importers in other regions. But we have been able to find little evidence that this type of U.S. credit is closely geared to interest rate differentials, in particular the covered or uncovered differential between New York and London, or indeed to the absolute level of interest rates in the two centers. Admittedly, the existence of interest arbitrage operations in borrowing for trade finance is extremely difficult to detect statistically, and the fact that we have not been able to find evidence of any substantial amount of it does not necessarily prove that it does not exist. Undoubtedly some borrowers do have contacts and lines of credit open in both London and New York, and perhaps elsewhere as well, and borrow where funds can be obtained most cheaply. But if this were the common practice, we would expect interest rates to "explain" more of the movements in claims outstanding than export. In fact, claims vis-a-vis Europe, Latin America, Japan, and the rest of the world sector (excluding these regions and Canada) appear to be fairly closely geared to U.S. exports to these regions; interest rates by themselves do not appear to be of any great significance in explaining changes in claims (with one or two relatively minor exceptions), nor are they significant in explaining the residual not explained by exports.

We can be less sure that the U.S. short-term funds moving into the Euro-dollar market—mostly vis-a-vis Canada—did not affect our balance of payments adversely in the sense either that they simply went to finance trade between two foreign countries (thus hurting us absolutely) or that they were used to finance additional U.S. exports but served to displace European funds which would have been forthcoming had the U.S. funds not been made available (thus hurting us relatively). The movement of U.S. funds into dollar deposits abroad has undoubtedly been stimulated by the higher interest rate offered in the Euro-dollar market compared with that offered here in this country. But most of this movement involves funds held by U.S. nonfinancial corporations, and it is not clear that the relatively slight interest differential would have attracted these funds on the same scale had there not been a substantial tax incentive involved—an incentive which effectively almost doubled the yield which could be earned by placing an amount of funds abroad which would earn interest equal to excess tax credits.

We have an entirely different situation when we consider movements of U.S. short-term capital which actually went into foreign currencies. It is clear that such movements have a direct adverse effect on our balance-of-payments position; the dollars of course may be spent back in the United States, but there is no direct channel to assure this. And it is fairly evident that at least some of the outflow which involved exchanging dollars for claims payable in foreign cur-

rency (comprising nearly 20 percent of the total 1960-61 outflow) was primarily motivated by the interest rate differential between London and New York. In particular, there appears to be a reasonably close relationship between increases in claims payable in sterling reported by U.S. banks (probably mostly on behalf of customers) as well as by U.S. nonfinancial corporations and the covered differential between London and New York. On the other hand, neither the covered or uncovered Canadian-United States, differential appears to explain the movement of funds to Canada. This movement may be geared more to interest rates in the London money market or the Euro-dollar market than to interest rates in the Canadian market, given the worldwide complexion of the major Canadian banks, or it is possible again that tax considerations and not interest rates were the primary stimulus to the movement of funds.

When all is said and done, we conclude that only \$600 to \$800 million of the \$2.6 billion of recorded U.S. short-term capital outflow over the 2 years 1960-61 (excluding \$175 million in short-term loans by U.S. banks to foreign banks and officials) can be considered as having had an adverse effect on our balance-of-payments position. The rest of the outflow, probably, came directly back to the United States as payment for exports which would not have been purchased had U.S. credit not been made available. What proportion of this \$600-\$800 million outflow was primarily due to the widening of interest rate differentials here and abroad, that is, would not have gone abroad were it not for this factor, is impossible to say. We have been able to uncover evidence suggesting some sensitivity to interest rates in a number of cases, involving more than half of the \$600-\$800 million outflow. But this does not necessarily imply that taking advantage of higher interest rates abroad was in fact the primary motive involved in the movement. The primary motive may have been tax considerations, or working balance needs, both of which dictated a rising outflow over the period studied. And interest rates appear to explain a relatively small proportion of the deviations about the trend in these outflows. We would expect to find a high correlation in terms of deviations about the trend if the capital flow were very sensitive to interest rates.

On the other hand, the fact that we could find relatively little statistical evidence suggesting great sensitivity to interest rates should not be taken as proof that no such sensitivity in fact exists. We chose to concentrate on Treasury bill rates since they usually dominate the short-term interest rate structure in financial centers, that is other rates tend to move with Treasury bill rates. But there is today an enormous variety of short-term assets available for investment in financial markets, and the structure of rates does vary. If we had tried other series we might have had more success. Or sensitivity might exist but never show up in any one statistical series because the flow of funds is responsive to different rates at different times. Or the relationships which may exist may be nonlinear relationships, and we would thus not uncover them with linear regression analysis.

We come then to movements of foreign short-term capital and their effect on the U.S. balance of payments position. How we measure this depends upon how we define our balance of payments deficit. If we follow present Commerce and Treasury Departments practice, movements of foreign short-term capital cannot have any autonomous effect on the overall deficit; such movements are, along with gold flows,

a residual "balancing" item which defines the deficit. If we put movements of foreign nonbank, nonofficial short-term capital "above the line," on the other hand, thus using a "banking" or "financial" deficit concept as we have chosen to do, such movements do affect the amount of the deficit. Or we might put both private nonbank and bank movements "above the line," thus defining the deficit in an "official flows" sense, i.e., as consisting of changes in foreign official holdings of dollar reserves plus gold flows.

In only 1 year of the last 5 did movements of foreign short-term capital contribute adversely in an absolute sense to our balance-of-payments position in terms of any of the above deficit concepts: in 1960 private nonbank capital was withdrawn from the United States to the extent of \$138 million, only to flow back again the following year, thus worsening our "financial balance" in that year. In fact, this withdrawal exceeded slightly the inflow of bank funds so that foreign short-term capital in 1960 worsened the "official flows" balance as well.

What we are really more interested in than the effect of foreign short-term capital movements on one or another deficit concept, however, is the effect of such movements on our gold holdings. If some foreigners withdraw short-term funds while others are willing to accumulate them, this should not trouble us greatly. The exchange of dollars as between private nonbank holders and banks, or between either of these and official holders may, admittedly, affect our overall liquidity position—the switch may lessen or enhance the possibility that the dollars will be spent on U.S. goods, for example, thus clearly affecting our current balance and our basic balance. Thus, an increase in U.S. exports may have as its genesis movements of foreign short-term capital as well as movements of U.S. short-term capital. In general, however, what we are primarily interested in is the effect of foreign short-term capital movements on our gold supply—in the composition of the overall deficit, of the financial deficit, or of the official flows deficit.

The trouble is there are no established guidelines as to what is, or should be "normal" with respect to the financing of the deficit, and therefore when foreigners are deviating from the norm and thus contributing favorably or adversely to our balance of payments position. When the United States is running a deficit, should we expect foreigners' marginal propensity to add to gold stocks with respect to increases in total gold and dollar holdings to be zero? equal to the average ratio in existence? stable, but not necessarily equal to the average? Clearly there is no magic formula. In fact, however, this parameter has turned out to be quite stable and equal to the average propensity or ratio throughout the period 1952-61, as shown in figure 7. People have worried about "switching" operations by foreigners, for example in response to interest rate inducements, and the adverse effect of this on our balance-of-payments position. And it true that both individuals and foreign banks have evidently done a considerable amount of switching from one financial center to another in recent years, and that such operations are often linked to interest arbitrage incentives (see app. IV). But the fact of the matter is that official bodies have been willing to offset these switch operations; we cannot really say that they have produced a drain on our gold stock. And in the end, this is what really counts.

6. We come finally to one last consideration. We have tried to analyze as carefully as we could the effects of recorded capital movements on the U.S. balance-of-payments position over the last 10 years. We have suggested that the recorded increase in the outflow of long-term capital over the period, offset in part by increased inflows related to the increase in outflow, has contributed substantially to the deterioration of our balance-of-payments position. Looking at the gross outflow figures alone overstates the adverse effect, but nevertheless there has been, net, an adverse effect.

In the last 2 years the deteriorating effect of outflows on long-term account has diminished, but an enormous increase in outflows on U.S. short-term account has completely swamped the slight improvement shown. We have argued that a substantial part of the 1960-61 short-term outflow, which has continued on into 1962, but on a somewhat smaller scale, has probably not served as a net drain on our position, but rather went to finance U.S. exports which might not have been sold without provision of credit. Nevertheless, at least 20 percent and perhaps 30 percent of the \$1.2 billion *increase in the annual average outflow* on U.S. short-term account probably has contributed directly, net, to our deficit position.

On top of this \$240-\$360 million increase in annual recorded outflows which have probably had direct adverse effects, however, we are faced with the fact that there was another \$1.4 billion increase in annual outflow hidden in the errors and omissions item, which shifted from a positive figure of \$680 million in 1957-59 to a negative figure of the same amount in 1960-61. Much of this adverse shift probably is due to unrecorded short-term capital flows. And the evidence in part IV suggests that these flows were of the worst possible type from the viewpoint of our balance of payments position—that they consisted of increased short-term claims payable in foreign currency vis-a-vis Canada and Europe, and dollar deposits in the Euro-dollar market. Not all of this implies a net drain; but, on the other hand, none of it can be shown definitely to be linked closely to increased U.S. exports. In other words, there is a real possibility, if not a probability, that recorded and unrecorded movements of U.S. short-term capital contributed adversely to our balance of payments position in each of the years 1960-61 to the extent of \$1.5 billion. We doubt that such is the case, because we believe that most of the U.S. funds moving into the Euro-dollar market do end up financing U.S. exports, but there is no way to arrive at statistical evidence to support this view.

Worst of all, we have to admit that we do not really know what is producing this large outflow on short-term account, if that is what is reflected by the large adverse shift in errors and omissions. The recorded capital flows which have behaved in much the same fashion as the errors and omissions item, leading us to suspect that the latter was in fact the same type of flow as the former, but unrecorded, cannot be shown to be very sensitive to the interest rates we have used for testing. But they may be sensitive to other interest rates—in particular to Euro-dollar rates. Or the outflows may simply have been stimulated largely by tax advantages existing because of the possibility of offsetting unused tax credits against foreign interest income prior to passage of the 1962 tax bill. There is still, unfortunately, a great deal that we do not know about private capital movements and the U.S. balance of payments position.

APPENDIX I

GROWTH IN DIRECT INVESTMENT ABROAD, REINVESTED EARNINGS, AND DIVIDENDS, AND OTHER INFLOWS, AND THE EFFECT ON THE BALANCE OF PAYMENTS

A formal derivation of the model employed in part I of the monograph can be developed as follows:

Let:

- I_n denote new capital outflow in year n ;
- D_n denote income remitted to United States in year n ;
- X_n denote net receipts on current account because of U.S. trade with our subsidiaries abroad;
- r denote the rate of return on the total book value of investment outstanding;
- r' denote the rate of growth in new capital outflow;
- a denote the share of earnings remitted home as a dividend;
- x denote net export receipts as a proportion of the total book value of investment outstanding.

Then we have (for a dollar of new investment in year zero):

$$(1) \quad I_n = (1 + r')^n$$

$$(2) \quad \Delta I_n = r'(1 + r')^{n-1}$$

$$(3) \quad \sum I_n = \frac{(1 + r')^{n+1} - 1}{r'}$$

$$(4) \quad X_n + D_n = (x + ar) \left[\frac{[1 + r' + (1 - a)r]^n - 1}{r' + (1 - a)r} \right]^1$$

$$(5) \quad \Delta X_n + \Delta D_n = (x + ar)[1 + r' + (1 - a)r]^{n-1}$$

$$(6) \quad \sum X_n + \sum D_n = \frac{(x + ar)}{r' + (1 - a)r} \left[\frac{[1 + r' + (1 - a)r]^{n+1} - 1}{r' + (1 - a)r} - (n + 1) \right]$$

Now various assumptions are possible with respect to our four parameter values r , r' , a , and x .

If all four parameters are assumed to be stable, we can measure the effect of a single injection of a dollar of new investment in year zero on the balance of payments in subsequent years by determining whether the right-hand side of expressions (4) and (6) is less than, equal to, or greater than 1 over some given time period, given values for the four parameters. So long as the right-hand side of (4) is less than 1, the annual flow of dividends and export receipts generated

¹ We have: $X_n + D_n = (x + ar)\Sigma[(1 + r' + (1 - a)r)^0 + (1 + r' + (1 - a)r)^1 + \dots + (1 + r' + (1 - a)r)^{n-1}]$. The sum of this geometric series is the expression given by (4), as can be determined by subtracting the expression for $X_{n-1} + D_{n-1}$ from the expression for $X_n + D_n$.

by the investment of \$1 has not yet matched the initial outflow in year zero; so long as the right-hand side of (6) is less than 1, the cumulative inflows, that is, all of inflows generated by the original investment, have not yet matched the original investment. Alternatively, we can find out in what period one or the other type of inflow will equal the dollar of original investment by setting (4) and (6) equal to 1 and solving for n .

Under these same assumptions as to stable parameters, the effect of a continuous stream of new foreign investment expenditures on the balance of payments may be determined by substituting parameter values and comparing the right-hand side of equations (1) and (4) on the one hand, and (3) and (6) on the other. If I_n is greater than $(X_n + D_n)$ for any given N , annual inflows in period n , from the stream of investments made subsequent to period zero, are less than annual outflows in period n . If $\sum I_n$ is greater than $\sum X_n + D_n$ for any given n , the cumulative outflow of new direct investment since period zero is greater than the cumulative inflows generated by that cumulative outflow. Alternatively, we can determine in what period annual inflows will grow to match annual outflows by setting (1) equal to (4) and solving for n , or we can determine when cumulative inflows will grow to match and subsequently surpass cumulative outflows by setting (3) equal to (6) and solving for n .

Now while r and a may plausibly be assumed to be relatively stable under most circumstances, this is not necessarily true of r' and x . The question of stability or instability of the parameter x concerns largely analysis of balance of payments effects of a *single investment*. It may well be that in early years following a new investment, related exports are, for example, larger relative to the book value of the investment than in later years, when manufacturers become more used to foreign suppliers and/or develop new facilities abroad to supply materials that they originally purchased from home. But this type of shifting x would largely "wash out" in terms of a *continuous stream* of new foreign investments, and it is this latter approach which is more relevant for measuring the full effects of foreign investment on the balance of payments, as we have stressed in the main text.

A stable value of r' , however, is only one of many possible assumptions which might be made about the growth pattern of direct foreign investment. An assumption which is at least as plausible as a stable r' is that there is a *stable rate of growth in total book value* (new capital from this country plus reinvested earnings), this growth being geared perhaps to the rate of growth in domestic investment in the country or region in which the investment is made.

Fortunately it turns out, however, that a stable r' in fact implies a very stable rate of growth in book value within a range of parameter values which appears to be relevant. If one substitutes $(1-a)$ for a outside the brackets in (4) and (5) and deletes x , we have an expression for the annual amount of retained earnings (RE), with any given r , for period n , and the increase in retained earnings in that year related to the level of the previous year. Using (1), (2), and the amended (4) and (5), then, we have:

$$\frac{\Delta I_n + \Delta RE_n}{I_{n-1} + RE_{n-1}} = \frac{[r' + (1-a)r][r'(1+r')^{n-1} + (1-a)r(1+r' + (1-a)r)_{n-1}]}{[r' + (1-a)r](1+r')^{n-1} + (1-a)r[(1+r' + (1-a)r)^{n-1} - 1]}$$

It can be shown that this expression approaches the constant,

$$\frac{[r' + (1-a)r]^2}{[r' + (1-a)r] + (1-a)r}$$

as n becomes infinitely large. Furthermore, for reasonable assumptions about parameter values—for example with $(1-a)r = .08$ as was found for Europe as shown in the text and with $0.5 \leq r' \leq 1.0$ —this constant is approached very rapidly indeed, and the rate of growth in book value is not extraordinarily high. Thus, if $(1-a)r = .08$ and $r' = .10$, the rate of increase in book value of overseas investment goes almost immediately to a stable 13 percent; if r' is 5 percent, the rate of increase in book value goes almost immediately to a stable 10 percent. The rate of increase in domestic money investment in France and Germany in 1952–60 was around 15 percent a year, so that these assumptions as to a value for r' are not unreasonable for U.S. investment in Europe.

APPENDIX II

INTEREST RATES AND LONG-TERM PORTFOLIO CAPITAL FLOWS: SOME EXPERIMENTS

Let—

- Y_1 denote U.S. net purchases of foreign bonds;
- Y_2 denote foreign net purchases of U.S. long-term Government and corporate bonds;
- Y_3 denote foreign net purchases of U.S. long-term Government bonds only;
- X_1 denote the long-term rate of interest on Government securities;
- X_2 denote the short-term rate of interest on Treasury bills;
- t denote linear trend (quarters numbered successively 1, 2, 3, etc.).

Further, let the superscript c denote Canada, uk denote the United Kingdom, e denote Europe including the United Kingdom, in denote international institutions, us denote the United States, and rw denote the “rest of the world” sector, i.e., the world less Canada, Europe, the United States, and international institutions. Then, using 21 observations (from the first quarter of 1957 through the first quarter of 1962), the following were representative regression equations obtained in the effort to assess the effect of interest rate movements on long-term portfolio capital flows (all variables expressed in millions of U.S. dollars).

For U.S. net purchases of Canadian bonds (which, cumulatively, amounted to \$1,664 million over the period), we have:

$$(2.1) \quad Y_1^c = -388 + 42.1 X_1^c - 133 X_1^{us} \\ \quad \quad \quad (71.5) \quad \quad (95) \\ \quad \quad \quad R_2 = .170.$$

$$(2.2) \quad Y_1^c = -101 + 195 X_1^c - 161 X_1^{us} - 11.2t \\ \quad \quad \quad (74.9) \quad \quad (77.5) \quad (3.45) \\ \quad \quad \quad R_2 = .488.$$

Without the trend variable, there is no significant relationship at all between net purchases and long-term rates of interest; when a linear trend variable is added, showing that purchases declined on the average about \$11 million each

quarter over the period, both interest rates become significant at the 5 percent level (i.e., the regression coefficients are more than twice their standard errors, and are therefore italicized), and approximately 50 percent of the net purchases is explained in terms of these variables. As suggested by the first equation, approximately 65 percent of the total explained variations in net purchases is lost by dropping the trend variable [$(.65)(.49) = (.49-.17)$], while 42 percent is lost by dropping the Canadian interest rate (but keeping trend) only 27 percent is lost by dropping the U.S. interest rate alone. Equation (2.2) suggests that Canadian sales (U.S. purchases) per quarter increased by \$195 million with a 1 percentage point rise in the Canadian interest rate, and by \$161 million with a 1 percentage point fall in the U.S. interest rate.

The net capital flow involving U.S. purchases, sales, and redemptions of European bonds over the period was in favor of the United States to the extent of \$315 million, mostly involving the sale by U.S. residents, or redemption by foreigners, of the bonds of Continental countries. We have:

$$(2.3) \quad Y_1^e = -60.5 - 1.60X_1^{uk} + 7.76X_1^{us} + 2.24t$$

(27.6) (41.9) (3.47)

$$R^2 = .177.$$

$$(2.4) \quad Y_1^{uk} = 28.7 - .366X_1^{uk} - 8.68X_1^{us} + .435t$$

(6.71) (10.2) (.845)

$$R^2 = .062.$$

$$(2.5) \quad Y_1^e - Y_1^{uk} = 367 + 2.65X_1^{uk} - 126X_1^{us} + 8.37t$$

(30.6) (46.4) (3.85)

$$R^2 = .540.$$

U.S. purchases (Y) were, in general, negative, being a somewhat large negative number early in the period and getting to be a smaller negative number later in the period. Equation (2.5) suggests that the U.S. long-term rate may have had some influence on the timing of purchases and sales; what appears to be the case is that foreign purchases or redemptions of their own bonds (U.S. net sales) was larger when the U.S. rate was high, smaller when the U.S. rate was low. But this relationship is probably accidental: the foreign purchases took place largely in 1959, following convertibility, and the U.S. rate happened to be high in that year.

So far as the U.S. net purchases of bonds of other countries (amounting to a cumulative total of \$500 million over the period) and of international institutions (amounting to \$1.3 billion over the period), we have the following:

$$(2.6) \quad Y_1^{rw} = -18.4 + 3.16X_1^{uk} + 4.24X_1^{us} + .879t$$

(22.0) (33.4) (2.77)

$$R^2 = .087.$$

$$(2.7) \quad Y_1^{in} = 835 - 47.2X_1^{uk} - 151X_1^{us} + 4.68t$$

(44.2) (67.2) (5.57)

$$R^2 = .363.$$

There appears to be some tendency for the bonds of international institutions (mainly the World Bank) to be issued when the U.S. interest rate is low, but no such timing of new issues to accord with the level of interest rates in this country is evident in the case of bonds of the rest of the world sector. The relationship between world bank issues and the U.S. interest rate may well be more than a question of timing, since the trend factor is not significant.

The relationship of foreign net purchases of U.S. Government and corporate bonds to long-term interest rates may be summarized as follows. Cumulative totals are given in the column at right to indicate the magnitudes involved.

		<i>Cumulative amount, 1957(I)-1962(I)</i>
(2.8)	$Y_2^c = -352 + 8.61X_1^c + 94.2X_1^{**} - 5.18t$ <p style="text-align: center;">(56.7) (58.6) (2.61)</p> $R^2 = .306$	\$ - 234m.
(2.9)	$Y_2^* = -420 - 11.2X_1^{**} + 156X_1^{**} + 8.16t$ <p style="text-align: center;">(40.2) (61.1) (5.07)</p> $R^2 = .464$	473
(2.10)	$Y_2^* = 83.2 - 67.1X_1^{**} + 78.5X_1^{**}$ <p style="text-align: center;">(21.3) (39.2)</p> $R^2 = .382$	(473)
(2.11)	$Y_3^* = -324 - 17.8X_1^{**} + 130X_1^{**} - 5.49t$ <p style="text-align: center;">(38.9) (59.0) (4.89)</p> $R^2 = .393$	286
(2.12)	$Y_3^* = -379 + 112X_1^{**} + 12.5X_2^{**} - 6.06t$ <p style="text-align: center;">(86.4) (26.5) (3.80)</p> $R^2 = .393$	(286)
(2.13)	$Y_2^{rw} = -172 + 24.4X_1^{**} + 18.2X_1^{**} - 1.48t$ <p style="text-align: center;">(26.7) (40.6) (3.37)</p> $R^2 = .084$	239
(2.14)	$Y_3^{rw} = -184 + 24.8X_1^{**} + 19.4X_1^{**} - 1.25t$ <p style="text-align: center;">(27.4) (41.6) (3.45)</p> $R^2 = .104$	167
(2.15)	$Y_3^{in} = 516 - 66.2X_1^{**} - 65.9X_1^{**} + 10.5t$ <p style="text-align: center;">(74.9) (113) (9.43)</p> $R^2 = .086$	650

The equations suggest, first, that countries in the rest of the world sector and international institutions clearly do not gear purchases of U.S. long-term securities to interest rates here or in London. These are purchases for international reserves by official bodies, or for working balances and diversification of portfolios by private bodies, and they appear to bear no relationship to interest rates at all. On the other hand, European purchases of U.S. bonds over the period have, seemingly, been related to interest rates—the U.S. rate in particular [equations (2.9) and (2.10) suggest that the relationship to the U.K. long-term interest rate serves as a “proxy” for trend]. But, again, this may be because purchases were inordinately large in 1959 following convertibility, and the U.S. interest rate was high in that year; the purchases may have been largely because of a need for working balances and portfolio diversification and not really related to the U.S. interest rate at all. Finally, equation (2.8) is suspect; U.S. Commerce Department statisticians have found that Treasury data grossly overstate the sale of U.S. corporate bonds by Canadians. (See note to table 4 of text.)

APPENDIX III

DETERMINANTS OF SHORT-TERM CAPITAL FLOWS FROM THE UNITED STATES: SOME EXPERIMENTS

As we have suggested in the body of the study, there are five basic categories of short-term U.S. claims on foreigners for which separate statistics are available.

Let—

Y_4 denote “trade credit” as reported by U.S. banks (a combination of loans to foreigners other than foreign banks and official plus collections outstanding, all payable in dollars);

Y_5 denote “other” claims payable in dollars reported by U.S. banks, which includes a substantial amount of acceptances as well as some dollar deposits held abroad;

Y_6 denote all claims payable in dollars reported by U.S. nonfinancial corporations;

Y_7 denote claims payable in foreign currency reported by U.S. banks (including both "deposits" and "other claims," for which separate statistics are available) ;

Y_8 denote claims payable in foreign currency reported by U.S. nonfinancial corporations (including both "deposits" and "other claims").

We have, for some purposes, analyzed separately the components of Y_4 , Y_7 , and Y_8 , but for the most part we have aggregated them as indicated. The two principal determinants which are thought to affect the level of these outstanding claims, and changes in the level, are U.S. exports and interest rates here and abroad. We have therefore experimented with various combinations involving three types of independent variable.

Let—

X_2 denote the rate of interest on Treasury bills ;

X_3 denote U.S. exports ;

t denote linear trend (quarters numbered successively 1, 2, 3, etc.).

Further, let the superscript c denote Canada, e denote Europe (including the United Kingdom), uk denote the United Kingdom, us denote the United States, and rw denote the rest of the world, including j for Japan and la for Latin America, sometimes considered separately. The covered rate is denoted by a subscript c .

Most of our regressions are for 21 quarters, from the first quarter of 1957 through the first quarter of 1962, although one series, using covered and uncovered interest rate differentials here and abroad, covers only 12 quarters for 1959-61, i.e., it is postconvertibility. Data are in millions of dollars or percentage rate of interest (i.e., 2.57, etc.). We have regressed outstanding claims at the end of a quarter against the level of exports during the quarter and interest rates during or at the end of a quarter. If claims are related to exports, they should increase with any increase in exports, fall with any decrease in exports ; our regression coefficient thus measures the change in claims outstanding with respect to a change in exports. There are two reasons for employing this relationship, as opposed to the change in claims vis-a-vis the level of exports, which would then both be comparable balance-of-payments flows. First, it allows us to express the variables in logarithmic form, so that changes are percentage changes—we found from experience that this yielded generally better results as we might expect. Second, we would a priori expect a change in claims outstanding to be related to a change in exports if the claims involved trade financing, not the rate of change in claims outstanding to be related to a change in exports. Thus, if the level of exports were 100, 120, and 156, and the level of claims outstanding were 40, 44, and 50.6 the proportionate change in claims per quarter are 50 percent of the proportionate change in exports, and our correlation would be perfect. (If the coefficient were 1, rather than .50, the ratio of claims outstanding to the level of exports would be constant.)

Our findings may be summarized as follows. We found a very strong relationship between claims and exports and little relationship between claims and various interest rate combinations (including the covered differential between New York and London) in the case of "trade credit" vis-a-vis the rest of the world sector and in the case of "other" claims payable in dollars reported by U.S. banks vis-a-vis the rest of the world sector. Together these two items comprised 50 percent of the 1960-61 outflow. Some representative equations for Y_4^{rw} are :

		<i>Amount of outflow 1960-61</i>	<i>Percent of total</i>
(3.1)	$\log Y_4^{rw} = 1.07 + .692 \log X_3^{rw} + .0163t$ (.146) (0.0033) $R^2 = .911.$	247	.09
(3.2)	$\log Y_4^{rw} = -3.08 + 1.30 \log X_3^{rw} - .064 \log X_2^{uk} - .102 \log X_2^{us}$ (.166) (.114) (.071) $R^2 = .813.$		
(3.3)	$Y_4^{rw} = 233 - 53.39(X_2c^{uk} - X_2^{uk}) + 31.4t$ (1959-61 only) (13.6) (1.83) $R^2 = .971.$		
(3.4)	$Y_4^{rw} = 1157 - 39.2(X_2c^{uk} - X_2^{us}) - .542X_3^{rw}$ (1959-61 only) (78.0) (1.09) $R^2 = .054$		

There was upward trend in this type of claim over the period as a whole, and there was a parallel increase in exports. But exports are an important explanatory variable. If either exports or the trend factor is dropped from equation (3.1), we lose only 12 percent of the explained variations in Y_4^{rw} ; the regression coefficient for exports is ten times its standard error in equation (3.2), whereas the interest rate coefficients are not significant. On the other hand, neither exports nor the covered (or uncovered) differential appear to explain the increase over the past 3 years, since convertibility; if the covered interest differential is dropped from equation (3.3), only 5 percent of the explained variations in Y_4^{rw} are lost, whereas 97 percent are lost if the trend factor is dropped. The failure of exports to show up as a significant variable in equation (3.4) to some extent may be because the relationships could not be expressed in logarithmic form, but more likely it means that we have aggregated too much. Claims outstanding increased steadily during 1959-61, and they involved extensive loans to Japan. And U.S. exports to Japan did increase steadily. (See below.)

We break Y_5^{rw} into three parts: Y_5^{ia} , Y_5^j , and Y_5^{wo} . Then we have the following for Latin America:

	<i>Amount of outflow, 1960-61</i>	<i>Percent of total</i>
(3.5) $\log Y_5^{ia} = 1.15 + .61\ell \log X_3^{ia} + .0447t$ (.289) (0.075) $R^2 = .740.$	222	.08
(3.6) $\log Y_5^{ia} = 11.8 - 1.00 \log X_3^{ia} + .708 \log X_2^{uk} - .135 \log X_2^{us}$ (.215) (.169) (.112) $R^2 = .680.$		

Using the series for covered and uncovered differentials for 1959-61 does not add anything. Again, there was a strong upward trend in claims, and changes in exports help to explain deviations about this trend. What appears to be the case for Latin America, however, is that we have been giving steadily increasing credit just to maintain a more or less stable level of exports over the last four years.

By far the largest increase in claims have of course consisted of credit to Japan. We have:

	<i>Amount of outflow, 1960-61</i>	<i>Percent of total</i>
(3.7) $\log Y_5^j = -3.98 + 1.48 \log X_3^j + .0933t$ (.184) (.0086) $R^2 = .962.$	819	.31
(3.8) $\log Y_5^j = -9.80 + 2.74 \log X_3^j - .0546 \log X_2^{uk} - .266 \log X_2^{us}$ (.468) (.412) (.663) $R^2 = .722.$		

The trend factor dominates, but exports rose with the increase in claims outstanding and help to explain deviations about the trend. Nearly 80 percent of the explained variations in claims as shown in equation (3.8) would be lost if exports are dropped from the equation. Using the covered and uncovered differential series for 1959-61 with exports and trend does not add anything to the above; no interest rate or interest differential tried proved to be significant in the phenomenon of the growth in Japanese credits.

In the case of claims against the rest of the world sector excluding Latin America and Japan, the amount of claims involved are small (the increase during 1960-61 was \$50 million, or 1 percent of the total), and regressions yield generally similar results to the above, with both exports and trend significant independent variables, alone and together.

"Trade credit" flowing to Canada and Europe via the U.S. banking system, and increases in "other" dollar claims vis-a-vis these regions as reported by U.S. banks amounted to a total of only \$211 million in 1960-61; this was 3 percent of the total outflow. The relationship of these outflows to exports and

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interest rates is not as clear as in the case of changes in these claims vis-a-vis the rest of the world sector, as can be seen from the following:

		<i>Amount of outflow 1960-61</i>	<i>Percent of total</i>
(3.9)	$\log Y_4^c = 10.7 - .962 \log X_3^c + .0723t$ <p style="text-align: center;">(.891) (.0111) $R^2 = .728.$</p>	19	.01
(3.10)	$\log Y_4^c = 19.3 - 2.11 \log X_3^c + .158 \log X_2^c - .166 \log X_2^{u*}$ <p style="text-align: center;">(1.77) (.775) (.786) $R^2 = .092.$</p>		
(3.11)	$Y_4^c = 122 - 9.06(X_{2c}^c - X_2^{u*}) + 4.61t$ <p style="text-align: center;">(15.0) (1.30) $R^2 = .565.$</p>		
(3.12)	$Y_4^c = 95.2 - 19.3(X_{2c}^{u*} - X_2^{u*}) + .0648X_3^c$ <p style="text-align: center;">(11.5) (.01) $R^2 = .545.$</p>		
(3.13)	$\log Y_4^c = 3.65 + .186 \log X_3^c + .0167t$ <p style="text-align: center;">(.148) (.0046) $R^2 = .609.$</p>	76	.03
(3.14)	$\log Y_4^c = 1.69 + .488 \log X_3^c + .0530 \log X_2^{u*} - .132 \log X_2^{u*}$ <p style="text-align: center;">(.347) (.179) (.108) $R^2 = .406.$</p>		
(3.15)	$Y_4^c = 73.7 - 28.4(X_{2c}^{u*} - X_2^{u*}) + 8.56t$ <p style="text-align: center;">(1959-61) (6.82) (.916) $R^2 = .918.$</p>		
(3.16)	$\log Y_5^c = 8.22 - .838 \log X_3^c + .0533t$ <p style="text-align: center;">(1.67) (.0208) $R^2 = .298.$</p>	53	.02
(3.17)	$\log Y_5^c = 3.17 + .210 \log X_3^c - 1.55 \log X_2^c + .301 \log X_2^{u*}$ <p style="text-align: center;">(1.65) (.722) (.732) $R^2 = .420.$</p>		
(3.18)	$Y_5^c = -30.5 - 4.00(X_{2c}^c - X_2^{u*}) + 3.79t$ <p style="text-align: center;">(1959-61) (8.90) (.803) $R^2 = .717.$</p>		
(3.19)	$\log Y_5^c = 7.17 - .243 \log X_3^c - .0415t$ <p style="text-align: center;">(.525) (.0163) $R^2 = .387.$</p>	63	.02
(3.20)	$\log Y_5^c = 13.2 - 1.24 \log X_3^c + .662 \log X_2^{u*} - .276 \log X_2^{u*}$ <p style="text-align: center;">(.578) (.541) (.328) $R^2 = .323.$</p>		
(3.21)	$Y_5^c = 270 + 15.6(X_2^{u*} - X_2^{u*}) - .189X_3^c$ <p style="text-align: center;">(1959-61) (8.90) (.090) $R^2 = .319.$</p>		
(3.22)	$Y_5^c = 142 - 29.2(X_{2c}^{u*} - X_2^{u*}) - .0209X_3^c$ <p style="text-align: center;">(1959-61) (26.0) (.095) $R^2 = .199.$</p>		

No very clear pattern emerges from these equations representative of many which were tried, but the evidence can be used to buttress, at least vaguely, certain preconceived notions we have from talks with bankers and central bankers dealing with foreign finance. Movements in certain components of Y_4 and movements in Y_5 can be shown as follows (the figures showing the change in out-

standing short-term claims for the two-year period 1957-58, and for the three-year, post-convertibility period 1959-61):

	Canada		Europe	
	1957-58	1959-61	1957-58	1959-61
Collection items.....	-3	6	105	20
Loans to foreigners other than banks and official.....	76	69	13	62
Total (Y_1).....	73	75	118	82
Other claims (Y_2).....	4	53	30	-47(a)

(a) Consisting of a reduction in claims outstanding of \$110 million in 1959, and an increase of \$63 million in 1960-61.

What may well have happened is that there was a steady relative decline in acceptance financing by U.S. banks for U.S. exports going to Europe (which rose sharply during the period), as traders shifted over to the Euro-dollar market. This would explain the relative decline in collection items, and with the "other" short-term claims through 1959, and the negative correlation between Y_5^e and X_3^e . And Canadian claims seem unrelated to U.S. exports to Canada. Some of the increases shown for Canada in Y_5 , and probably also for Europe in 1960-61 were probably then dollar deposits. We were financing European trade with the United States, but through the Euro-dollar market—directly, and through Canada.

Let us turn, then, to the claims payable in dollars held by U.S. nonfinancial corporations, which may also be linked up with the Euro-dollar market. We have the following:

		<i>Amount of outflow, 1960-61</i>	<i>Percent of total</i>
(3.23) $\log Y_6^e = .179 + .539 \log X_3^e + .0786t$ (1.48) (0.0197) $R^2 = .484.$		384	.14
(3.24) $\log Y_6^e = 2.23 + .482 \log X_3^e - 1.11 \log X_2^e + .523 \log X_2^{**}$ (2.11) (.919) (.934) $R^2 = .131.$			
(3.25) $\log Y_6^e = 4.55 - .778 \log X_2^e + .287 \log X_2^{**} + .074t$ (.660) (.667) (.019) $R^2 = .555.$			
(3.26) $Y_6^e = -373 - 53.6(X_{2e}^e - X_2^{**}) + 39.2t$ (1959-61) (84.0) (7.6) $R^2 = .754.$			
(3.27) $Y_6^e = -333 - 152.6(X_{2e}^{**} - X_2^{**}) + 39.4t$ (1959-61) (23.4) (3.14) $R^2 = .955.$			
(3.28) $\log Y_6^e = 1.11 + .545 \log X_3^e + .0291t$ (.108) (.0034) $R^2 = .915.$	127		.05
(3.29) $\log Y_6^e = -2.45 + 1.14 \log X_3^e - .197 \log X_2^{**} - .154 \log X_2^{**}$ (.249) (.229) (.139) $R^2 = .602.$			
(3.30) $Y_6^e = 38.9 + 22.3(X_{2e}^{**} - X_2^{**}) + 14.2t$ (1959-61) (16.0) (2.16) $R^2 = .837.$			

		<i>Amount of outflow, 1960-61</i>	<i>Percent of total</i>
(3.31)	$\log Y_6^{rw} = 1.80 + .551 \log X_3^{rw} - .00691t$ (.190) (0.0430) $R^2 = .343.$	56	.02
(3.32)	$\log Y_6^{rw} = 5.27 + .0000988 \log X_3^{rw} + .286 \log X_2^{uk} - .0359 \log X_2^{us}$ (.000056) (.065) (.040) $R^2 = .722.$		
(3.33)	$\log Y_6^{rw} = 218 + 5.28(X_2^{uk} - X_2^{us}) + 7.77t$ (1959-61) (5.90) (2.30) $R^2 = .859.$		
(3.34)	$Y_6^{rw} = 294 + .22.0(X_2^{uk} - X_2^{us}) + .0136X_3^{rw}$ (5.70) (.203) $R^2 = .679.$		
(3.35)	$Y_6^{rw} = 411 - 2.74(X_2^{uk} - X_2^{us}) - .0815X_3^{rw}$ (25.4) (.705) $R^2 = .007.$		

The increase in short-term dollar claims of nonfinancial corporations, a category of short-term capital flow which by itself accounted for 21 percent of the 1960-61 outflow, is largely dominated by the trend factor, although the covered United Kingdom rate tends to be significant in the case of claims against Canada, exports tend to be significant in the case of claims against Europe, and the uncovered United Kingdom rate shows up as a significant variable in some of the expressions for claims vis-a-vis the rest of the world. But in fact these supporting explanatory variables help us hardly at all.

The covered United Kingdom rate has the wrong sign with respect to claims against Canada; U.S. short-term claims against Canadians tended to increase when the covered London-New York differential fell—in particular, during 1961. What may well have happened here is that covered funds were put in London during 1960 when the differential widened so substantially, but were then pulled out in 1961 when the covered differential dropped sharply, even turning negative, and were deposited with Canadian banks as dollar deposits, thus supplying the Euro-dollar market, for the Euro-dollar rate held up in 1961 in spite of the fall in the covered rate on Treasury bills in London. At least the statistics would generally support this hypothesis.

In the case of claims against Europe, we cannot really be sure of the significance of the export factor. The increasing level of exports to Europe corresponds to the trend in short-term claims, and also helps to explain deviations about that trend, whereas interest rates do not show up as being significant. But we may not be employing the appropriate interest rates. The movement of funds by these nonfinancial corporations as between London and the Continent in 1959-61 suggests the possibility again of interest arbitrage, as in the case of Canada above.

We have to admit that we simply have no very clear case on the determinants of the short-term dollar claims against foreigners of U.S. nonfinancial corporations. The fact that no very clear pattern emerges, other than a dominant trend involving an increased outflow of funds, especially after 1959, does perhaps lend support to the general thesis that tax considerations have played an important part.

Let us turn to short-term claims payable in foreign currency, as reported by U.S. banks and nonfinancial corporations.

		<i>Amount of outflow, 1960-61</i>	<i>Percent of total</i>
(3.36)	$\log Y_7^c = 5.40 - 1.358 \log X_2^c + .615 \log X_2^{us}$ (.844) (.856) $R^2 = .191.$	193	.07
(3.37)	$\log Y_7^c = 4.64 - 1.13 \log X_2^c + .461 \log X_2^{us} + .064t$ (.662) (.670) (.018) $R^2 = .534.$		

	<i>Amount of outflow, 1950-51</i>	<i>Percent of total</i>
(3.38) $Y_7^c = -222 + 23.9(X_2^c - X_2^{u*}) + 22.6t$ (19.6) (3.49) $R^2 = .857.$		
(3.39) $Y_7^c = -168 + 51.7(X_2^c - X_2^{u*}) + 19.1t$ (29.1) (2.62) $R^2 = .876.$		
(3.40) $Y_7^c = -163 + 1.30(X_2^{u*} - X_2^{u*}) + 19.6t$ (13.0) (5.31) $R^2 = .833.$		
(3.41) $Y_7^c = -111 + 14.5(X_2^{u*} - X_2^{u*}) + .635X_2^c$ (11.5) (.174) $R^2 = .831.$		
(3.42) $Y_7^c = -165 - 7.29(X_2^{u*} - X_2^{u*}) + 20.1t$ (22.3) (2.98) $R^2 = .835.$		
(3.43) $\log Y_7^c = 4.363 + .377 \log X_2^{u*} + .0376 \log X_2^{u*}$ (.359) (.242) $R^2 = .059.$	100	.04
(3.44) $\log Y_7^c = 4.40 + .116 \log X_2^{u*} - .00359 \log X_2^{u*} + .0363t$ (.269) (.177) (.0088) $R^2 = .529.$		
(3.45) $Y_7^c = -25.9 - 5.25(X_2^{u*} - X_2^{u*}) + 14.2t$ (14.0) (5.40) $R^2 = .658.$		
(3.46) $Y_7^c = -21.8 + 45.7(X_2^{u*} - X_2^{u*}) + 12.2t$ (16.8) (2.26) $R^2 = .808\frac{1}{2}$		
(3.47) $\log Y_7^{r*} = -.359 + 1.206 \log X_2^{u*} + .352 \log X_2^{u*}$ (1.055) (.712) $R^2 = .175.$	57	.02
(3.48) $\log Y_7^{r*} = -.229 + 1.103 \log X_2^{u*} + .189 \log X_2^{u*} + .143t$ (.357) (.235) (.012) $R^2 = .916.$		
(3.49) $Y_7^{r*} = -35.7 + 7.33(X_2^{u*} - X_2^{u*}) + 4.89t$ (4.60) (1.76) $R^2 = .860.$		
(3.50) $Y_7^{r*} = -61.6 + 10.4(X_2^{u*} - X_2^{u*}) + 7.16t$ (7.60) (1.20) $R^2 = .851.$		
(3.51) $\log Y_8^c = 4.033 - .525 \log X_2^c + .0845 \log X_2^{u*}$ (.506) (.513) $R^2 = .154.$	57	.02
(3.52) $\log Y_8^c = 3.41 - .263 \log X_2^c - .139 \log X_2^{u*} + .049t$ (.316) (.319) (.009) $R^2 = .706.$		
(3.53) $Y_8^c = -18.4 + 1.98(X_2^c - X_2^{u*}) + 4.05t$ (9.78) (1.74) $R^2 = .463.$		

		<i>Amount of outflow, 1960-61</i>	<i>Percent of total</i>
(3.54)	$Y_3^c = -14.0 + 9.89(X_{2c}^c - X_2^{uk}) + 3.67t$ (15.3) (1.38) $R^2 = .485.$		
(3.55)	$\log Y_3^c = 3.633 + .725 \log X_2^{uk} - .285 \log X_2^{us}$ (.461) (.308) $R^2 = .219.$	102	.04
(3.56)	$\log Y_3^c = 3.55 + .498 \log X_2^{uk} - .310 \log X_2^{us} + .0422t$ (.377) (.247) (.0131) $R^2 = .527.$		
(3.57)	$Y_3^c = -54.7 + 3.33(X_2^{uk} - X_2^{us}) + 10.9t$ (14.0) (5.36) $R^2 = .636.$		
(3.58)	$Y_3^c = -70.9 + 20.8(X_{2c}^{uk} - X_2^{us}) + 11.8t$ (21.4) (2.88) $R^2 = .669.$		
(3.59)	$\log Y_3^{rw} = 3.294 + .454 \log X_2^{uk} - .0518 \log X_2^{us}$ (.431) (.287) $R^2 = .077.$	34	.01
(3.60)	$\log Y_3^{rw} = 3.36 + .243 \log X_2^{uk} - .0736 \log X_2^{us} + .0248t$ (.360) (.236) (.0125) $R^2 = .254.$		

In general, there is little here to indicate great sensitivity to interest rates here and abroad. With one or two exceptions, there is a dominant upward trend in claims outstanding, and interest rates neither substitute for this trend nor explain deviations about the trend. The principal exception to this is the case of short-term claims payable in foreign currency vis-a-vis Europe (Y_7^c), where the covered London-New York differential appears to be an important explanatory variable. Even in this case, however, it turns out that if we dropped the covered interest rate we would lose only 20 percent of the explained variations in Y_7^c , whereas if we eliminated the trend variable nearly 80 percent of the explained variations would disappear, and we would be left with an R^2 of less than .20.

APPENDIX IV

SWITCHING OF FOREIGN EXCHANGE RESERVES BY FOREIGNERS IN RESPONSE TO INTEREST RATES AND OTHER FACTORS: SOME EXPERIMENTS

It is suggested in the body of this study that the behavior of foreigners with respect to the holding of dollar assets may have an important effect on our overall balance-of-payments position. What would seem to be most significant is not the behavioral pattern of any one group, such as commercial banks, but the behavioral pattern of individual country's banking systems as a whole. It makes little difference to us if German banks do a large amount of interest arbitrage if German monetary authorities are willing to and do offset these interest arbitrage operations, i.e., "swap" dollar assets with their own commercial banks. If German commercial banks move out of dollars into sterling, and there is no offset by German authorities, however we are likely to lose gold. What we investigate in this appendix is the extent to which foreign banking systems as a whole in individual countries have tended to switch foreign exchange holdings from one foreign financial center to another in response to interest rate considerations and other factors.

Let—

X_2 denote the rate of interest on Treasury bills (with superscripts uk and us designating the British and U.S. rates, respectively, and the subscript c designating the covered London rate);

X_4 denote U.S. dollar liabilities to foreign official bodies and commercial banks, as reported by U.S. banks;

X_5 denote the total foreign exchange reserves of individual banking systems, as reported in IMF data;

Y_3 denote X_4/X_5 .

If individual foreign banking systems are responsive to interest rates, then the dependent variable Y_9 should bear some significant relationship to some combination involving X_2 independent variables; if these banking systems simply gear the ratio of their foreign asset holdings in sterling and dollars to their total asset holdings, then Y_9 should bear some significant relationship to X_5 .

We have studied the behavioral pattern of banking systems for 23 countries—countries for which reasonably adequate data are available. These countries divide into four groups: (1) those for which foreign exchange holdings in different financial centers seem to be dominated simply by the total level of foreign exchange reserves, i.e., Y_9 bears a special relationship to X_5 and to X_5 only; (2) those for which holdings in different financial centers appears to be dominated by one or another of possible interest rate considerations only, i.e., the ratio of dollar to total holdings is geared to interest rates in London and New York; (3) some combination of (1) and (2); and (4) those for which no understandable pattern is evident. The period covered is the fourth quarter of 1957 through the first quarter of 1962 in regressions involving levels of interest rates, the 12 quarters of 1959–61 in regressions employing the covered and uncovered differential.

COUNTRIES FOR WHICH RATIO OF DOLLARS TO TOTAL FOREIGN EXCHANGE RESERVES IS DEPENDENT ON LEVEL OF TOTAL FOREIGN EXCHANGE RESERVES AND ON INTEREST RATES

Peru

$$(4.1) \quad Y_9 = 1.13 - .0912X_2^{uk} + .0270X_2^{us} - .0056X_5 \\ (.024) \quad (.031) \quad (.0015) \\ R^2 = .788.$$

$$(4.2) \quad Y_9 = 1.10 - .0714(X_2^{uk} - X_2^{us}) - .00568X_5 \\ (.0229) \quad (.00184) \\ R^2 = .875.$$

$$(4.3) \quad Y_9 = 1.24 - .0861(X_{2c}^{uk} - X_2^{us}) - .0100X_5 \\ (.0633) \quad (.0018) \\ R^2 = .784.$$

Note that the relationship to the uncovered rate differential appears to be stronger than the relationship to the covered differential.

Israel

$$(4.4) \quad Y_9 = .325 + .0208X_2^{uk} + .0720X_2^{us} - .0018X_5 \\ (.0096) \quad (.0124) \quad (.00010) \\ R^2 = .940.$$

$$(4.5) \quad Y_9 = .620 - .0368(X_2^{uk} - X_2^{us}) - .00106X_5 \\ (.0137) \quad (.00025) \\ R^2 = .935.$$

$$(4.6) \quad Y_9 = .715 - .0404(X_{2c}^{uk} - X_2^{us}) - .00161X_5 \\ (.0277) \quad (.00018) \\ R^2 = .905.$$

Italy

$$(4.7) \quad Y_9 = 1.13 - .0073X_2^{uk} + .0939X_2^{us} - .00489X_5 \\ (.0272) \quad (.0362) \quad (.00007) \\ R^2 = .849.$$

$$(4.8) \quad Y_9 = 1.67 - .0415(X_2^{uk} - X_2^{us}) - .000519X_5 \\ (.0350) \quad (.000103) \\ R^2 = .819.$$

$$(4.9) \quad Y_9 = 1.93 - .215(X_{2c}^{uk} - X_2^{us}) - .000680X_5 \\ (.083) \quad (.000085) \\ R^2 = .879.$$

COUNTRIES FOR WHICH INTEREST RATES ALONE OF PRIMARY IMPORTANCE AS A DETERMINANT OF RATIO OF DOLLARS TO TOTAL FOREIGN EXCHANGE RESERVES

Germany

$$(4.10) \quad Y_0 = .183 + .0220 X_2^{uk} + .0690 X_2^{us} + .00004 X_5$$

(.039) (.005) (.00005)

$R^2 = .139.$

$$(4.11) \quad Y_0 = .660 + .0402(X_2^{uk} - X_2^{us}) - .0000106 X_5$$

(.0397) (.0000629)

$R^2 = .167.$

$$(4.12) \quad Y_0 = .497 + .201(X_2^{uk} - X_2^{us}) + .0000312 X_5$$

(.044) (.0000243)

$R^2 = .719.$

The striking thing here is the strong positive relationship to the covered interest differential. The German banking system as a whole tended to increase the ratio of dollars to total foreign exchange reserves when the covered differential went against the United States.

Netherlands

$$(4.13) \quad Y_0 = .884 - .0694 X_2^{uk} + .0332 X_2^{us} - .00028 X_5$$

(.020) (.027) (.00019)

$R^2 = .560$

$$(4.14) \quad Y_0 = .748 - .0816(X_2^{uk} - X_2^{us}) - .000220 X_5$$

(.0108) (.000139)

$R^2 = .867.$

$$(4.15) \quad Y_0 = .274 - .166(X_2^{uk} - X_2^{us}) + .000415 X_5$$

(.132) (.000588)

$R^2 = .170.$

Clearly, in the Dutch case, it is the uncovered, rather than the covered London rate which is significant.

Belgium

$$(4.16) \quad Y_0 = .439 - .0500 X_2^{uk} + .2039 X_2^{us} - .0005 X_5$$

(.0705) (.0881) (.0007)

$R^2 = .474.$

$$(4.17) \quad Y_0 = 1.09 - .0413(X_2^{uk} - X_2^{us}) - .00120 X_5$$

(.0737) (.00074)

$R^2 = .513.$

$$(4.18) \quad Y_0 = 1.26 - .37(X_2^{uk} - X_2^{us}) - .00171 X_5$$

(.095) (.00033)

$R^2 = .790.$

Japan (central bank only)

$$(4.19) \quad Y_0 = 1.38 - .120 X_2^{uk} - .0141 X_2^{us} + .00028 X_5$$

(.046) (.057) (.00015)

$R^2 = .392.$

$$(4.20) \quad Y_0 = 1.23 + .0276(X_2^{uk} - X_2^{us}) - .0000707 X_5$$

(.0090) (.0000426)

$R^2 = .513.$

$$(4.21) \quad Y_0 = 1.17 - .00958(X_2^{uk} - X_2^{us}) + .0000126 X_5$$

(.0323) (.0000532)

$R^2 = .012.$

It should be noted that it is the uncovered London rate which is significant for Japan, and that the central bank played a stabilizing role in 1959-61.

COUNTRIES FOR WHICH RATIO OF DOLLARS TO TOTAL FOREIGN EXCHANGE RESERVES
DEPENDENT LARGELY ON THE LEVEL OF RESERVES

Venezuela

$$(4.22) \quad Y_0 = 1.53 - .0324(X_2^{uk} - X_2^{us}) - .00202X_5$$

$$\quad \quad \quad (.0548) \quad \quad \quad (.00069)$$

$$\quad \quad \quad \quad \quad \quad R^2 = .527.$$

An almost identical relationship was obtained using the covered differential. The relationship for the longer period, going back into 1957, was not so strong as the above.

Norway

$$(4.23) \quad Y_0 = .411 - .0145X_2^{uk} - .0111X_2^{us} - .00089X_5$$

$$\quad \quad \quad (.0093) \quad \quad \quad (.0117) \quad \quad \quad (.00015)$$

$$\quad \quad \quad \quad \quad \quad R^2 = .486.$$

$$(4.24) \quad Y_0 = .630 + .00548(X_2^{uk} - X_2^{us}) - .00184X_5$$

$$\quad \quad \quad (.00717) \quad \quad \quad (.00037)$$

$$\quad \quad \quad \quad \quad \quad R^2 = .665.$$

$$(4.25) \quad Y_0 = .552 - .00888(X_2^{uk} - X_2^{us}) - .00109X_5$$

$$\quad \quad \quad (.0179) \quad \quad \quad (.00032)$$

$$\quad \quad \quad \quad \quad \quad R^2 = .653.$$

There was a consistent movement by Norway away from dollars when its total reserves rose, into dollars when they declined.

Portugal

$$(4.26) \quad Y_0 = -.658 + .0338X_2^{uk} - .0331X_2^{us} + .00372X_5$$

$$\quad \quad \quad (.0397) \quad \quad \quad (.0373) \quad \quad \quad (.00170)$$

$$\quad \quad \quad \quad \quad \quad R^2 = .301.$$

$$(4.27) \quad Y_0 = -.461 - .0179(X_2^{uk} - X_2^{us}) + .00308X_5$$

$$\quad \quad \quad (.0113) \quad \quad \quad (.00065)$$

$$\quad \quad \quad \quad \quad \quad R^2 = .873.$$

The covered rate also proved insignificant. Portugal appears to increase its ratio of dollar holdings when reserves increase, decrease this ratio when reserves decline. But changes in its total exchange reserves over the period were slight.

Philippines

$$(4.28) \quad Y_0 = 1.82 + .0434X_2^{uk} + .00287X_2^{us} - .00610X_5$$

$$\quad \quad \quad (.0418) \quad \quad \quad (.0562) \quad \quad \quad (.00144)$$

$$\quad \quad \quad \quad \quad \quad R^2 = .634.$$

Equations using interest rate differentials were similar.

RECENT DEVELOPMENTS IN FOREIGN MARKETS FOR
DOLLARS AND OTHER CURRENCIES

By

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RECENT DEVELOPMENTS IN FOREIGN MARKETS FOR DOLLARS AND OTHER CURRENCIES

A previous paper, "Foreign Markets for Dollars, Sterling, and Other Currencies," was concerned with the structure, operations, characteristics, and implications of foreign markets for dollars, sterling, and the major currencies of Western Europe as of the spring of 1961.¹ The present paper describes subsequent developments in these markets through the summer of 1962. It emphasizes the effects of operations in foreign currencies, largely U.S. dollars, upon interest rates and short-term capital markets in Europe and elsewhere, and the significance of these operations for monetary policy.²

I. SIZE OF FOREIGN MARKETS FOR DOLLARS AND OTHER CURRENCIES

As noted in the earlier paper, "the size of the Euro-dollar market can be nothing but a guess—perhaps a very wild guess." First, data for some financial centers are either not reported (e.g., Amsterdam, Paris, and Zurich) or are seriously inadequate (e.g., London and Montreal/Toronto). Second, there is a large, but unknown, amount of overlapping and duplication created when statistics or estimates of foreign currency deposits of financial centers are added together, since banks accept deposits from, and place them with, each other.³ And third, there are both duplications and omissions in the data reported for any one financial center.

The foreign currency market in London is the largest in Europe. Data published for this market by the Bank of England cover overseas banks in London (British, American, and some other foreign) and accepting houses, but not clearing banks; neither do they cover a number of foreign banks operating in London. Published data do not distinguish between foreign assets and liabilities denominated in foreign currencies. They do, however, distinguish between assets and liabilities of residents and those of nonresidents. The amount and trend of foreign currency deposits to the credit of nonresidents in London (those of the United Kingdom residents may be disregarded) must thus be an estimate. Such an estimate must be based on the assumption that the increase of deposits over some base date, e.g., the end

¹ International Monetary Fund Staff Papers, vol. VIII (1960-61), pp. 313-52. This is hereafter referred to as "Foreign Markets, 1961."

² Like its predecessor, this paper is for the most part based upon discussions with officials in central banks, commercial banks, and private banks. These took place in April-June 1962 in London, Paris, Basle, Zurich, Frankfurt, Bonn, Amsterdam, Rome, and Montreal. In addition, discussions were held with officials in commercial banks in New York, and with staff members of the Federal Reserve System in New York and Washington.

Canadian banks conduct large operations in U.S. dollars. These are described in a related paper, "Canadian Markets for U.S. Dollars," International Monetary Fund Staff Papers, vol. IX (1962), pp. 297-316.

³ The extent of this duplication depends upon three characteristics of the market: the "one-way" length of the foreign currency chain, since there may be a number of financial institutions between the "real" owner of the deposit and the final user; the circular movement of deposits among financial centers, since a London bank may place a deposit with a Paris bank which may subsequently be redeposited in London; and the desire of many banks to be on both sides of the market, accepting and placing deposits at the same time.

of 1958, or some earlier date, suitably adjusted, yields a meaningful figure of foreign currency deposits held by nonresidents. This estimate would have to be adjusted for incomplete coverage, duplications, and the increase in sterling deposits included in the figures. Fortunately, an estimate made by the Bank of England as of June 1961 can serve as a benchmark. This estimate placed foreign currency deposits of oversea and foreign banks as of June 1961 at nearly £500 million, equivalent to nearly \$1.4 billion.⁴ Inclusion of the accepting houses, clearing banks, and certain foreign banks, allowing for the increase in their sterling deposits held by nonresidents, would raise this to a minimum of \$2 billion.⁵ As of June 1962, foreign currency deposits may be estimated at approximately \$2½ billion.

Foreign currency deposits of nonresidents in Paris banks were about \$800 million in the spring of 1962. They were perhaps one-third larger than those a year earlier. In addition, these banks held about \$400 million of foreign currency deposits for the account of residents. Foreign currency deposits for the account of nonresidents in Italy were \$1 billion in March 1962,⁶ and were thus slightly larger than those in Paris. Foreign currency deposits in other European financial centers were considerably smaller than in Paris. For example, those in Germany were about \$450 million in June 1962.⁷ Of all the financial centers in continental Europe, Paris had the widest range of market operations, as regards the number of currencies involved, and the diversity of sources and uses of funds. As a market Paris was thus more akin to London than were the other continental centers.

It may be estimated that the size of foreign markets for dollars, sterling, and other currencies in Europe increased somewhat in 1961 and then increased more rapidly in the first half of 1962. Funds in these markets as of June 1962, after allowance for the pyramiding of deposits among financial centers, were probably more than \$3 billion, without taking into account the foreign currency deposits of Canadian banks.⁸

The operations of Canadian banks in U.S. dollars increased substantially during 1961. Foreign currency deposits placed with Canadian banks increased by \$680 million in 1961 and \$330 million in the first half of 1962, reaching a total of \$3.7 billion. (These figures are stated in U.S. dollars. They are reported in Canadian dollars in Canadian statistics, which showed \$4.0 billion of deposits in June 1962.) Foreign currency deposits placed by Canadian banks with other banks increased by \$430 million in 1961 and by \$86 million in the first half of 1962, reaching a total of \$1 billion.⁹ The largest part of these foreign currency deposits (apart from working balances) was placed with banks in London, though substantial amounts were placed with banks in continental financial centers. Such deposits would be included in the totals reported for these centers. Foreign currency

⁴ Bank of England, Quarterly Bulletin, "The Overseas and Foreign Banks in London," September 1961, p. 20.

⁵ See appendix II, "Foreign Currency Deposits in London, June 1961."

⁶ Banca d'Italia, Annual Report, 1961, table 8, p. 225.

⁷ Estimated from Monthly Report of the Deutsche Bundesbank, August 1962, p. 15.

⁸ "Foreign Markets, 1961" estimated the United Kingdom total at the end of 1960 as at least \$1 billion, and perhaps as much as \$1¼ billion, and the European dollar market at a minimum of \$2 billion (p. 328). In the light of the figures given here, these estimates were probably too low.

⁹ "Canadian Markets for U.S. Dollars," already cited, pp. 300, 305-6, and appendix I.

deposits with financial institutions other than banks in these centers (e.g., finance companies in London), and with European banks outside these centers would constitute additions to the total for Europe, as would loans made to nonfinancial enterprises.

A world total of dollars and other foreign currencies used in foreign markets would also include dollar deposits accepted by Canadian banks, with the proceeds invested outside of Europe. This would include the large amounts of U.S. dollars invested in the United States in the form of securities, "street" loans, and other loans, and investments in Canada and in countries outside of Europe and North America. Such a world total would be of the order of \$4 billion to \$5 billion.

It is thus impossible to make precise estimates of the size of the foreign markets for dollars and other currencies. Nevertheless, the significance of operations in these markets can be evaluated without respect to such estimates. As already noted—

the significance of these or any other estimates of the foreign dollar market rests not on these numbers, which are meaningless after the market has attained a certain operating size, but on the fact that the market is large and diversified, that it consists of many elements which can and will operate on one side or the other, that large amounts can be loaned or borrowed without noticeably affecting the going rates, and that the operations are competitive. These characteristics would not change even if the market were somewhat smaller or much larger than it now is.¹⁰

II. CURRENCIES IN FOREIGN MARKETS

Foreign market operations in foreign currencies in 1962 were conducted, as they had been in 1961, largely in U.S. dollars. Continental European currencies, particularly the Swiss franc and the deutsche mark, were held and used in larger amounts in 1962 than in 1961, but, since operations in dollars were also larger, they did not increase greatly in relative importance. Deposits of sterling in foreign markets (Euro-sterling) continued to be relatively small. Much of the sterling used in foreign markets was purchased ad hoc with other currencies.

Foreign currency deposits with banks in London and Canada are almost exclusively made and denominated in dollars. Foreign currency deposits in Paris for the account of nonresidents in the spring of 1962 were about two-thirds in dollars, 15 percent in Swiss francs, 12 percent in sterling, and 5 percent in deutsche mark. Germany is also active on both sides of the foreign currency market. German commercial banks as of June 1962 had short-term liabilities to foreigners (deposits and short-term bank borrowings) denominated in foreign currencies of about \$450 million, of which more than two-thirds was in dollars.¹¹

Italy is active on both sides of the foreign currency market, principally for its own account as lender and borrower. Italian commercial banks as of March 1962 had \$1.2 billion of foreign currency assets and \$1 billion of foreign currency deposits. As of March 1962, 70 percent of these deposits was in dollars.

¹⁰ "Foreign Markets, 1961," pp. 328-329.

¹¹ Estimated from Monthly Report of the Deutsche Bundesbank, August 1962, p. 15.

TABLE 1.—*Currency composition of nonresident deposits in foreign currencies held by Italian commercial banks, 1959-62*

[In percent]

	1959	1960	1961	March 1962
Dollars.....	52	64	69	70
Swiss francs.....	20	10	12	14
Sterling.....	21	17	11	11
Deutsche mark.....	3	5	6	4
Guilders, French francs, and others.....	4	4	2	1
Total.....	100	100	100	100

Source: Banca d'Italia, Annual Report, 1961, table 8, p. 225.

Data are not available on the distribution by currency of foreign deposits in such other financial centers as Zurich and Amsterdam. The proportion of dollar deposits to total foreign currency deposits in these centers was probably higher than in Italy and Germany.

On the whole, and with some rough adjustments for duplications, deposits in dollars probably constituted about 85 percent of all deposits in foreign currency markets in Europe. This percentage was slightly lower than in 1961. Sterling was a smaller percentage, and Swiss francs and other continental currencies a larger one, in 1962 compared with 1961. The greater use of continental currencies stems from the smaller forward premium on the dollar, which made it possible, as discussed more fully in a later section, to pay rates of interest on Swiss franc deposits which were closer to those paid on dollar deposits. This in turn made it possible to obtain and use more Swiss francs in foreign market operations.

III. STRUCTURE OF FOREIGN CURRENCY MARKETS

Euro-money operations are conducted almost entirely by commercial banks. Banks obtain supplies of dollars and other foreign currencies from their respective central banks, other central banks, other commercial banks, their customers, and anyone else who wishes to deposit foreign currencies. They use these currencies directly, or convert them into other currencies, including their own domestic currency. They may deposit these currencies with (i.e., lend them to) other banks in the same country or banks in London, Paris, and other money markets. At one end of the Euro-money operation is a bank that obtains dollars or other foreign currencies from what may (somewhat vaguely) be called "final" owners. At the other end is a bank which lends these currencies to "final" borrowers, which may be other banks, industrial and commercial enterprises, individuals, and governments. International companies, such as large oil, shipping, and industrial enterprises, are active in these markets both as depositors and as borrowers. Many companies that are large but not international are in the market, especially as borrowers.

Deposits are transferred from one bank to another at small interest margins in the process of moving funds from someone who wants to lend to someone who wants to borrow. Market operations in dollars and other foreign currencies are numerous. It may appear that funds are churned needlessly from one bank to another, and that the amount of froth is out of proportion to the work done. The structure and

operations of the market may thus appear to be unnecessarily complicated and expensive. Yet, for the most part, the complexity of the market and the numerous transactions in it merely reflect the many facets of the markets in dollars and other foreign currencies, and the specialized nature of the banks that deal in them.

Some banks prefer to serve as financial intermediaries in foreign currency markets. These banks prefer a minimum of contact with commercial or industrial borrowers, and since they deal with banks, they operate with a minimum of risk. When such banks have prime status, they may secure deposits at a rate perhaps below the market average. They place their funds with prime names and are content to earn commissions (on an annual basis) of one-thirty-second percent, one-sixteenth percent, or one-eighth percent.¹² Along with the policy of placing funds only with prime names goes that of maximum diversification of risk, through limiting the amount of deposits placed with any one bank, in any one market, and at any one maturity. In some cases, this also means considering the probable use of funds by the recipient.

At the other end of the scale are banks that seek foreign currency funds for their own commercial operations, and that use these funds to augment their own capital and deposits. Obtaining foreign currency deposits may be the quickest and most convenient way to secure additional funds—and in the short run it may also be the cheapest. This action, however, increases the risks involved in bank operations by reducing the ratio of capital funds to total assets. It bases an expanded volume of business on funds whose availability and interest cost may vary greatly with the state of the market.

Relatively few banks that deal in foreign currency markets are clearly of either of these two types. The great majority do a diversified business, placing deposits with other banks, making loans to industrial or commercial customers, and investing in securities and commercial paper. Nevertheless, the relative importance of these activities varies greatly from one bank to another. To a considerable extent, banks are specialized with respect to areas of investment, types of customers, size of commitments, and maturities. The foreign currency markets are, in fact, less homogeneous than might at first appear. Even the money that is dealt with differs with respect to maturity, prospect of renewability, and other factors.

In addition to the large number of banks that are active in dollar and other foreign currency markets, there are many organizations in the market which are not strictly banks. This, of course, complicates the problems of obtaining complete statistics on foreign currency operations in large and highly specialized markets, such as London. There are probably several hundred organizations in the market, counting all branches and affiliates that operate with some, though by no means complete, autonomy. The major part of the operations in foreign currencies is carried on by a much smaller number, however, which probably totals no more than 50 if a head office, its branches, and affiliated corporations are counted as 1 organization.

¹² Commissions as high as one-fourth of 1 percent are spoken of, but these would probably be made through a broker, who would normally be paid a fee of one-sixteenth percent. Yet accepting a deposit of \$5 million for 30 days at one interest rate and placing it simultaneously with another bank at a rate of one-quarter of 1 percent higher yields a gross profit of only \$1,000.

These numbers make for a large and complicated market, in which participants are linked by telephone, telex, and cable. Inevitably, subsidiary groupings have developed in the form of correspondent relationships, customary channels for funds, and the like.

Brokers have become an important mechanism for organizing the market as the number of participants has increased. Brokers follow carefully the movements of funds and of interest rates. They keep in close touch with banks and other organizations that may wish to place or to obtain deposits. Brokers act as agents and not as principals. Their job is to put would-be lenders and borrowers of foreign funds in touch with each other. After this has been done, the arrangements are worked out by the principals themselves and the broker is paid a commission.

The most important brokers in Europe are located in Paris, London, and Lausanne. Some 15 firms in Paris do brokerage, and 5 or 6 do the bulk of the business. These firms intermediate between the Paris banks, which prefer not to deal directly with each other; they also intermediate between the banks in Paris and those elsewhere on the Continent and in London. Brokerage operations in London are also on a substantial scale. This is not surprising since there are at least 35 organizations in the city that are active in the Euro-dollar market, and several times that number that either take part on a small scale or many do so under suitable conditions. Brokerage is useful for the London banks, particularly the smaller ones, in dealing with other organizations in London.¹³ There are six major brokers in London. Finally, a large firm in Lausanne, which has developed lines of communication with many banks in Europe, regularly advises clients and prospective clients by circular of prevailing rates of interest on deposits of different currencies and conducts an active brokerage business.

Many banks use the facilities of brokers for part of their transactions. The larger banks in the market, and particularly those with prime names, take pride in arranging their foreign currency operations directly with principals, though they too may use the services of brokers for some transactions. The proportion of banks that use brokers in any period of time is much larger than the proportion of Euro-money turnover arranged through brokers.

Brokers' charges apparently vary somewhat with the size of the placement and the standing of the principals. A usual charge is one-sixteenth percent. The charge may occasionally be smaller but it is seldom larger.

IV. SOURCES OF DOLLARS AND OTHER CURRENCIES

A large proportion of the dollars dealt with in foreign markets, but a modest proportion of the other currencies, is directly or indirectly owned by central banks and other monetary authorities. Official funds reach the money markets in three ways.

(1) Central banks and monetary authorities provide their respective commercial banks with dollar funds through swap operations,

¹³ In addition, a specialized service is rendered by some organizations to foreign investors who may wish to invest funds in the United Kingdom other than in the form of deposits. For example, some merchant bankers act as agents for a commission, arranging for the conversion of foreign currencies into sterling and for the investment and management of the proceeds.

with a general or a specific understanding that these dollars will be used to acquire foreign currency assets. Thus, for some years, the Deutsche Bundesbank has sold dollars to German commercial banks, and German branches of foreign banks, at the going market rate, with a forward commitment to reacquire dollars¹⁴ at the same rate ("flat") 3 months later. The Bundesbank employs swap transactions, varying the premiums or discounts, to carry out its monetary policy; the commercial banks engage in swaps to increase their earnings and improve their portfolio of investments. The amounts involved in swap transactions are large and variable. For example, outstanding swap operations totaled DM4 billion in August 1961; DM1 billion in December 1961; DM4.2 billion in January 1962; DM2.6 billion in May 1962; and DM1 billion in October 1962. Similarly, the Ufficio dei Cambi has provided Italian commercial banks with large amounts of dollars through swap operations. These totaled more than \$500 million for several months in 1961; decreased to \$400 million at the end of the year as they were replaced by dollar deposits; and rose to \$670 million in March 1962.¹⁵

Official swap operations are advantageous for commercial banks. While there is no advantage in the spot rate offered by the monetary authorities, the forward rate is generally more favorable than that in the market. The dollar position of the commercial banks is always covered forward, so that the monetary authorities carry the risk of any losses that would follow from a change in exchange parities.

(2) Central banks and monetary authorities deposit dollars in domestic commercial banks without requiring the surrender of the local currency equivalent. In some cases, such deposits are made to earn higher rates of interest than could be earned in New York. But in the case of Italy, which has made the largest deposits of dollars with domestic commercial banks, the most important consideration was internal monetary policy. To increase domestic liquidity without interfering with the international credit operations of Italian commercial banks, the monetary authorities made large deposits of dollars, partly to replace the dollars supplied by swaps. Deposits, as distinguished from swaps, do not require the surrender of the lire equivalent, and therefore increase the resources at the command of the banks. At the end of 1961, these deposits, on which the Italian monetary authorities earned interest at the rate of 3½ percent, totaled \$300 million.¹⁶ In the first quarter of 1962, as domestic liquidity improved, deposits were partly replaced by swaps and decreased to \$110 million.

In August 1962, the Federal Reserve Board sold \$50 million to the Swiss National Bank against Swiss francs. The dollars were, in turn, made available with an exchange guarantee to the Swiss commercial banks, which used them to buy U.S. Treasury bills. These

¹⁴ The commercial banks also had an obligation to sell dollars, i.e., to reacquire deutsche-mark, at the end of the swap period.

¹⁵ Banca d'Italia, Annual Report, 1961, pp. 216-218.

¹⁶ Banca d'Italia, Annual Report, 1961, pp. 217-218. The term of these deposits was not given, but the rate of interest paid appears to be close to the rate on Euro-dollar deposits for 1-3 months.

Treasury bills, in all probability, released other commercial bank holdings of dollars to the Euro-dollar market.¹⁷

(3) Central banks in Europe, Latin America, the Middle East, and the Far East deposit dollars with commercial banks in London, Paris, Canada, and other money markets. Those central banks which are members of the Bank for International Settlements deposit dollars with it. The BIS has become an important intermediary between its members with Euro-dollar markets. Its currency deposits (as distinguished from its gold deposits, which are covered by gold, spot and forward) have grown rapidly in recent years. Its time deposits alone increased from \$125 million in March 1959 to \$300 million in March 1962, and a large part of these must have been placed with banks participating in the Euro-dollar market. The intermediation of the BIS undoubtedly earned for its member central banks higher rates of return than they would care to earn themselves through direct operations.

Although precise data are not available, it is probable that the central banks or monetary authorities of 20 or 25 countries have deposited dollars or sterling outside the United States and the United Kingdom, respectively. The proportion of the funds in foreign currency markets which are owned directly or beneficially (in the form of swap counterparts) by central banks and monetary authorities can be estimated only very roughly. It would be conservative to assume, however, that two-thirds of all the funds in European markets in the summer of 1962 was of this character. This estimate does not include foreign currency deposits made by international organizations other than the BIS, e.g., the European Investment Bank.

The remainder represented deposits of the funds of commercial banks, largely in continental Europe, and the funds of business enterprises and individuals in many countries, including the United States.¹⁸ Corporations and individuals in the United States have made substantial time deposits in Canada and Europe in order to earn interest at higher rates than can be earned at home. Business enterprises and individuals in many other countries, e.g., Canada, Germany, and Switzerland, can hold dollars and other foreign currencies without restriction as to amount, time, or purpose. Some have themselves deposited funds in the Euro-dollar market, or they have placed them with domestic banks which have done so. In a number of industrial countries where there is a residue of exchange control, as in France, business enterprises can hold dollars and other foreign currencies for for limited periods of time through authorized banks.

Individuals and business enterprises may wish to hold and deposit dollars because they can earn higher rates of interest on deposits in dollars than on deposits or available investments in domestic cur-

¹⁷ The banks distribute their dollar assets among various investment media, including Euro-dollar deposits. These additional U.S. Treasury bills resulted in their freeing other funds for investment in the Euro-dollar market, where they would earn higher rates.

A similar arrangement between the Federal Reserve Board and the Bank for International Settlements was negotiated at the same time. The BIS obtained \$60 million in exchange for Swiss francs, half of which were deposited with them by Swiss commercial banks. The dollars were used to buy U.S. Treasury bills. The secondary reactions on the Euro-dollar market may have been the same as those described for the Swiss commercial banks.

It may be noted that these arrangements reduced Swiss domestic liquidity, which was a major objective of the Swiss National Bank.

¹⁸ See the comments in European Monetary Agreement, Annual Report, 1961, pp. 50-53 and 59.

rency, because dollar deposits offer great flexibility with respect to amounts and maturities, and because holding dollars (assuming they are to be needed later) avoids costs of conversion.

V. USES OF DOLLARS AND OTHER FOREIGN CURRENCIES

Banks and other business enterprises use the major part of the dollars and other foreign currencies in foreign markets, although governments and official agencies use significant amounts.

Local authorities in the United Kingdom have been important borrowers in the London Euro-dollar market. They borrow sterling funds, much of which has been on very short term. The Euro-dollar market provides sterling through sales or swaps of dollars. Indeed, some participants in the Euro-dollar market accept dollar deposits in order to convert them into sterling to lend to local authorities. The market is wide and generally advertised.¹⁹ Investment of funds with local authorities has become a well-recognized medium for interest arbitrage, sometimes (as in the latter part of 1961) on an uncovered basis.²⁰ The availability of short-term funds through the Euro-dollar market has had important effects upon the debt structure of the local authorities and encouraged a shift to short-term debt.²¹

Governments may be affected, directly or indirectly, by Euro-money markets. Thus, it is generally understood that Belgian banks have accepted substantial amounts of dollar deposits in part to lend to the central government.²² The chartered banks of Canada, in the 18 months ending June 1962, increased their holdings of short-term U.S. securities by \$400 million largely as a result of dollar deposits placed with them.²³

Most of the dollars and other foreign currencies obtained through the Euro-money market are, however, used by the private sector.

The commercial banks of a large number of countries accept deposits in dollars and other foreign currencies in order to finance export-import operations, or domestic operations, or both. When foreign currencies are borrowed by industrial and commercial enterprises for their own use, they are as a rule²⁴ first borrowed by those engaged in international trade. Importers may borrow dollars or other foreign currencies to pay for imports from the United States or from other countries. Exporters may borrow such currencies to finance shipments to other countries. It has been observed that—

¹⁹ For example, the *Financial Times* (London) in May 1962 listed the following six categories of investments for sums not less than £20,000: 2 and 7 days' notice without minimum periods of deposit; and 7 days' notice for minimum periods of 1, 3, 6, and 12 months.

²⁰ The Bank of England's Quarterly Bulletin charts only two arbitrage media: 3-month Treasury bills New York-London, covered; and interest on London Euro-dollars, with United Kingdom local authority rates, covered, 3-month basis. As of June 1961, the Bank of England estimated that some 10 percent of the foreign currency deposits in London was swapped into sterling (*Quarterly Bulletin*, September 1961, p. 20); this estimate may well be on the low side.

²¹ Short-term debt, with a maturity of 1 year or less, increased from 11 percent in 1958 to 22 percent in 1961, of which three-eighths (\$1.4 billion) was repayable at call or in 7 days. Maturities have been shortened further since 1961. London's merchant banks, overseas banks, and foreign banks are important lenders to local authorities. The *Economist* (London) estimated that "perhaps over a half of the increase in temporary borrowing of local authorities in the first quarter of 1962 was of foreign origin" (Aug. 25, 1962, p. 720). See also the *Economist*, Aug. 18, 1962, pp. 631-32; the *Statist*, Feb. 9, 1962, p. 410, and July 13, 1962, p. 119; and *Bank of England Quarterly Bulletin*, June 1962, pp. 98-99.

²² Compare the comment in *National Bank of Belgium Annual Report, 1961*, p. 37n; and *European Monetary Agreement Annual Report, 1961*, p. 61.

²³ "Canadian Markets for U.S. Dollars," already cited, p. 306.

now firms in many countries are looking more and more to foreign credits as a substitute for, or a complement to, the credit facilities in their domestic markets. Differences in the cost of credits are not the only incentive for so doing; often the ready availability of credit facilities abroad is the decisive factor.²⁵

Banks may also lend local currency purchased with dollars and other foreign currencies.

The number of countries involved in financing trade in dollars and other foreign currencies has increased as Euro-money operations have become more familiar and as the size of the Euro-money market has grown. In Europe, as has already been noted, foreign currency deposits are accepted and used by banks in the United Kingdom,²⁶ France, Germany, Italy, the Netherlands, Switzerland, and Belgium. Banks in Norway have accepted significant amounts of dollar deposits, of which the major part was loaned to the shipping industry.²⁷ Banks in Denmark have accepted dollar deposits to finance export and import trade. Many countries in the Communist bloc, including the U.S.S.R., Hungary, and Bulgaria, actively solicit deposits of dollars and European currencies from banks in Western Europe; in addition, they borrow from the Moscow Narodny Bank and the Banque Commerciale pour l'Europe du Nord, which are themselves in the Euro-money market. A number of countries in the Middle East, including Israel, have accepted foreign currency deposits. Some Euro-dollar deposits have been placed with banks in South America, the Far East, and Australia. The commercial banks in Japan accept large deposits in dollars and smaller amounts in sterling and other currencies; in the spring of 1962, such deposits probably totaled about \$400 million.

An accurate list of all the countries that accept foreign currency deposits cannot, of course, be drawn up without a detailed knowledge of bank customers. Nevertheless, it may be conservatively estimated that commercial banks in 25 or 30 countries accept and use foreign currency deposits. Banks in many other countries would undoubtedly wish to do the same, but cannot do so because of governmental regulations on foreign borrowing or the unwillingness of banks to lend.

The number of countries that benefit from operations in foreign currency markets is considerably larger than the number whose banks accept deposits in such currencies. Many British, American, Canadian, French, and Italian banks have branches or affiliates in foreign countries. The head offices may accept funds which their branches lend in many different countries, sometimes in convertible currencies and sometimes, after swaps, in local currencies. Thus, the Bank of London & South America, which is generally considered to be a large taker of dollars and other foreign currency deposits, employs part of its funds to finance production and trade in many Latin American countries.

²⁴ To which borrowings of U.S. dollars in Canada are an outstanding exception.

²⁵ European Monetary Agreement Annual Report, 1961, p. 60.

²⁶ "There is no doubt whatever that some of the short-term liabilities of the local authorities have a foreign exchange origin. The hire-purchase companies, when they became associated with or controlled by the clearing banks also found that their credit standing was such that they could compete for this kind of money, and very large sums have been deposited with them through the operations of the international money market"—Sir George Bolton, "International Money Markets," Quarterly Review of Bank of London and South America, July 1962, p. 117.

²⁷ It has been estimated that a large part of the foreign exchange debt of Norwegian commercial banks as of Apr. 30, 1962—which was about Nkr1,100 million (\$154 million)—probably consisted of Euro-dollars; and that about 80 percent of this was passed on in loans to Norwegian shipowners (IMF International Financial News Survey, July 27, 1962, p. 229).

Commercial banks are themselves important users of dollar deposits, which serve as an important money market instrument. A bank that temporarily needs additional liquidity may accept dollar and other foreign currency deposits instead of discounting with its central bank or selling assets in the open market. This role of the Euro-money markets in transferring funds from one bank to another is analogous to that of the Federal funds market in the United States.²⁸ Commercial banks may also borrow funds to increase their resources and their ability to extend credit. If they are loaned up to the limit of their resources, or if they are subjected to a domestic credit squeeze by their monetary authorities, they can obtain additional liquidity by accepting dollar deposits.

Moreover, since deposits can be accepted or placed in a wide range of maturities and qualities, banks use them very flexibly. A bank may be on both sides of the Euro-money market at the same time, depending upon its liquidity needs, the kind of balance sheet it wishes to present, and the character of the domestic market for short-term Government securities and commercial paper. With a given amount of assets to be kept in liquid form, a commercial bank may prefer to place part of its funds in short-dated Euro-dollar deposits rather than all of them in short-term government securities, particularly if the latter are less liquid or yield lower rates of return. Alternatively, a bank may improve its liquidity position, at some reasonable interest cost, by simultaneously accepting dollar deposits for 1 or 3 months and by placing dollar deposits at call or 7 days. Such an operation improves its balance sheet and also permits it to operate with less liquidity in domestic currency, or to lengthen somewhat the maturity of its other investments.

Part of the dollar deposits obtained by American banks in Europe is used to make dollar investments there, such as loans to European companies and to branches and affiliates of American companies. The relative importance of such activities depends upon bank policy, and varies from one bank to another; it also reflects the interest rate an American branch can charge in relation to the prime rate charged by its head office in New York. But the major part (probably three-quarters) of the dollar funds obtained by the branches of American banks in Europe is made available to their head offices. For example, in June 1962, American branches in London showed \$1.1 billion of nonresident deposits (largely dollars) and \$780 million of advances to overseas banking offices (largely their head offices). The proportion of dollar funds similarly transferred to the United States by branches on the Continent was certainly no less than in London.

VI. INTEREST RATES ON DEPOSITS OF DOLLARS

Interest rates on dollar deposits are determined on a highly competitive basis. Rates are usually quoted for periods of 1, 2, 7, 30, 60, 90, and 180 days, but arrangements can be made for depositing any sum for any period up to 18 or 24 months. At any one time in the market there is a range of rates rather than any one unique rate. This

²⁸ Board of Governors of Federal Reserve System, "The Federal Funds Market" (1959). "The Federal funds market refers to the borrowing and lending of a special kind of money—deposit balances in the Federal Reserve Banks—at a specified rate of interest" (p. 1; also pp. 43-50, 67-91): "The Federal Funds Market," Federal Reserve Bank of St. Louis, Monthly Review, April 1960, pp. 2-5.

range, which may be as much as three-fourths percent, reflects the status of the borrowers and their particular need for funds, as well as other factors which are difficult for any outside observer to appraise. Most of the dollar deposits are dealt with on the basis of 90 days or less.

It is convenient at this point to consider the factors that determine the rate of interest on dollars in foreign markets, and the limits within which Euro-dollar interest rates may move. As will be clear, rates of interest payable on domestic and foreign time deposits in the United States are only one of the factors affecting Euro-dollar interest rates and operations.

The rates of interest paid by U.S. banks on time deposits, and those that can be earned on other short-term investments in the United States, e.g., Treasury bills and bankers' acceptances, help determine the amount of dollars offered in foreign markets by foreigners and by Americans. The rate of interest on 90-day deposits of Euro-dollars in London is necessarily higher than the rates on competing investment media in the United States. In 1961, the Euro-dollar rate in London averaged 3.58 percent, compared with 2.35 percent on new issues of U.S. Treasury bills and 2.80 percent on prime bankers' acceptances. In the first 8 months of 1962, the Euro-dollar rate averaged 3.66 percent, compared with 2.76 percent on new issues of U.S. Treasury bills and 3.02 percent on U.S. bankers' acceptances (table 2).

TABLE 2.—3 months interest rates on Euro-dollar deposits in London and on other investments, 1961-62

[In percent per annum]

End of period	Euro-dollars ¹	U.S. bankers' acceptances ²	U.S. Treasury bills ³	United Kingdom Treasury bills ⁴	Local authorities ⁵	Sterling forward discount ⁶
	(1)	(2)	(3)	(4)	(5)	(6)
1961—January	3.86	2.86	2.23	4.15	4.75	0.80
February	3.60	2.81	2.50	4.40	5.06	.98
March	3.69	2.88	2.39	4.49	5.50	2.14
April	3.66	2.78	2.19	4.41	5.38	1.88
May	3.66	2.68	2.35	4.44	5.38	1.88
June	3.50	2.75	2.22	4.54	6.12	3.68
July	3.38	2.75	2.24	6.69	7.56	4.11
August	3.31	2.88	2.32	6.70	7.32	3.92
September	3.38	2.75	2.23	6.63	7.56	3.82
October	3.44	2.75	2.32	5.73	6.62	2.75
November	3.63	2.75	2.61	5.39	6.25	2.67
December	3.88	3.00	2.59	5.36	6.68	2.58
Average	3.58	2.80	2.35	5.24	6.18	2.60
1962—January	3.44	3.00	2.71	5.24	6.38	2.49
February	3.50	3.00	2.66	5.55	6.38	2.66
March	3.66	3.00	2.72	4.45	5.75	2.04
April	3.41	3.00	2.70	4.05	5.00	1.51
May	3.81	2.88	2.70	3.82	4.56	.80
June	3.69	2.98	2.79	3.82	4.56	.80
July	3.94	3.13	2.89	3.89	4.56	.62
August	3.81	3.13	2.84	3.77	4.38	.62
Average	3.66	3.02	2.76	4.34	5.20	1.44

¹ Rate on last working day of month, as reported in the Bank of England, Quarterly Bulletin. Data for January and February 1961 were estimated independently.

² Rate in last week of month, Federal Reserve Bulletin.

³ Rate on new issues, last week of month, Federal Reserve Bulletin.

⁴ Tenders, last week of month, from Deutsche Bundesbank Monthly Report.

⁵ Bank of England, Quarterly Bulletin.

⁶ IMF, International Financial Statistics. Computed from end of month rates (average of buying and selling) for spot and 90-day forward exchange, with the resulting percentage expressed as an annual rate.

It should not be assumed that these differentials between interest rates on Euro-dollar deposits in London and interest rates on various investment media in the United States are necessary or permanent. The Euro-dollar market is only a few years old. Interest differentials required to attract investors to a new market, and particularly to a new international market, are higher than those required to attract investors to a seasoned one; moreover, interest differentials required to attract investors are higher than those required to retain them. It follows that the Euro-dollar market could flourish on interest differentials lower than those that have been experienced to date. This would be consistent with the growing internationalization of short-term capital markets.

There would be no demand for Euro-dollars unless they could be used profitably. Interest arbitrage in the pure sense of borrowing cheap to invest dear is a factor, though not a major one, in the demand for Euro-dollars. In the past few years such arbitrage has taken place between Euro-dollars and investments in sterling. Interest rates on Euro-dollars have consistently been too high to permit covered interest arbitrage in United Kingdom Treasury bills, though not too high to rule out uncovered arbitrage. There have been periods in the last few years, for example, in the latter half of 1961, when there was a substantial movement of uncovered funds into sterling. During such periods it is possible that some Euro-dollars were used to finance the purchase of Treasury bills. Deposits of funds with local authorities and finance houses in the United Kingdom have been a profitable outlet for funds. Interest rates paid on 90-day deposits by local authorities averaged 6.18 percent in 1961 and 5.20 percent in the first 8 months of 1962 (table 2); and those paid by finance houses were even higher. On the average during this period, the covered yield on deposits with local authorities, allowing for the cost of dollar-sterling swaps, was approximately the same as published interest rates on Euro-dollars. This is not too surprising, since dollar funds swapped into sterling were an important source of financing for the local authorities. Deposits with local authorities in 1961-62 were often attractive on a covered basis and always so on an uncovered basis. These averages, however, suggest smaller investment opportunities than in fact existed. Given the spread in interest rates on Euro-dollar deposits, and the spread in interest rates paid by local authorities, it is reasonable to infer that it was practically always possible to use some dollars profitably in this way.

Industrial and commercial enterprises, and banks, have been the largest users of dollars and other foreign currencies.

For those relatively few foreign companies that can command the prime rate in the New York market, the interest rate charged for loans of Euro-dollars cannot exceed this rate, which has been 4½ percent for some time. However, only a small number of foreign companies can borrow at the New York prime rate. "A canvass of a small number of large U.S. banks known to be important in international business indicates that prevailing rates charged prime foreign corporate borrowers on short-term loans (July 1962) range from 4¾ to 5 percent, or about one-fourth to one-half percent higher than rates

charged U.S. companies of prime standing.”²⁹ If allowance is made for the requirement that borrowers must keep compensating balances of 10–20 percent (say, 15 percent) against their loans, the effective prevailing prime rate in New York must be about $5\frac{3}{4}$ percent. In comparing these rates with those in Europe, it must be kept in mind that the U.S. credit is made available in the form of a loan rather than, as in Europe, an overdraft, which more precisely reflects the needs of the borrower.³⁰

For blue chip industrial and commercial customers, the banking opportunities are thus limited to those banks that are willing to engage in large scale operations, borrowing (say) 90-day Euro-dollars at $3\frac{1}{2}$ – $4\frac{1}{4}$ percent and lending them at rates below $5\frac{1}{4}$ – $5\frac{7}{8}$ percent. In other words the business involves the amount of profit foreign banks (including foreign branches of American banks) can earn by dealing in large sums of money with prime names at a maximum gross interest margin of 1– $2\frac{1}{2}$ percent.

For this kind of wholesale banking, applicable overhead costs, and direct expenses other than interest, are both small. Even a bank engaged in large Euro-dollar operations seldom has more than several hundred accounts, considering both the sources and the users of funds. Additional personnel requirements are minor, since these banks already have international lending officers and exchange and interest arbitrageurs. A modest gross interest margin may thus yield a comfortable profit, entirely apart from allied benefits: the possibility of additional commercial loan business, additional exchange operations and trust and registrar functions, and the undoubted advertising value of keeping one’s name in the market. These possible benefits account for the fact that much of this prime business is done on much lower gross interest margins than 1– $2\frac{1}{2}$ percent. Commercial banks may borrow 3 months dollars in London at, say, $3\frac{1}{2}$ percent and consider it profitable, even normal, to lend dollars to their best customers at 4 or $4\frac{1}{4}$ percent. A margin of only $\frac{1}{2}$ percent, or even 1 percent, between the cost of money to a bank and the price of money charged by a bank is, of course, virtually unknown in domestic banking operations. However, many foreign currency transactions between banks and commercial or industrial businesses take place at very low gross interest margins. There is intense competition for this business, which from time to time has taken on the character of cutthroat competition.

Euro-dollar operations, however, are by no means confined to channeling funds to borrowers who may be entitled to the prime rate in New York. Foreign currencies are loaned to borrowers who are entitled to the prime rate only in their own countries, as well as to borrowers who cannot command the prime rate anywhere. In such cases, the upper limit that can be charged on foreign currency loans is not the effective prime rate in New York but the effective domestic prime rate, or some domestic rate which may be substantially higher.

²⁹ Data supplied by W. McC. Martin, Chairman of the Federal Reserve Board, in *Higher Interest Rates on Time Deposits of Foreign Governments: Hearings before the Committee on Banking and Currency, U.S. House of Representatives, on H.R. 12080 (87th Cong., 2d sess.), July 1962, p. 87.*

³⁰ For a convenient summary of the significance of the prime rate and its relation to other lending rates, see Federal Reserve Bank of New York, *Monthly Review*, April and May 1962.

Accurate statistics on effective rates of interest charged on commercial loans and on overdrafts are not available for the European countries that are large borrowers of Euro-dollars,³¹ although it is known that the nominal prime rates for local currency loans in every European country except the Netherlands and Switzerland are as high or higher than the prime rate in New York, and that other domestic rates are very much higher than the corresponding prime rate.³² Even in such low interest countries as Switzerland and the Netherlands rates for prime customers are in many cases higher than the New York prime rate.

There are various reasons why this situation prevails. Every country has its own structure of interest rates, which reflects to a great extent domestic credit conditions and monetary policy. There are inherent rigidities in what is called a "customer" or "banking" relationship. Banking structures and money market procedures and instruments vary from country to country for legal and historical reasons. These elements have created patterns of interest rates which vary in terms of customary levels and margins. The effects of a prolonged period of inconvertibility, capital scarcity, and balance of payments difficulties, marked by controls on capital movements and exchange transactions, have not yet been completely liquidated. In practically every country, moreover, there are agreements and understandings among banks, or regulations for banks, that govern rates of interest paid on deposits and charged on loans.³³

VII. INTEREST RATES ON DEPOSITS OF OTHER CURRENCIES

One of the interesting developments in foreign currency markets in the latter part of 1961 and in 1962 has been the greater use of continental currencies, which is related to the greater strength of the dollar in forward markets. For example, as the forward premium on Swiss francs was reduced in this period, the arbitrated rate of interest that could be paid in foreign markets on Swiss franc deposits increased. This brought forth additional supplies of Swiss francs. An Italian importer who needed dollars to pay for imports from the United States might borrow Swiss francs, which cost 3.20 percent in London, and use these to buy spot dollars, rather than borrow dollars, which cost 3.75 percent.³⁴ The cost of dollars was the same if he bought forward cover, but the Swiss francs were cheaper if he did not. After 90 days, he would buy Swiss francs with lire. Since both currencies were at similar premiums with respect to the dollar, the rate for forward Swiss francs in terms of lire was close

³¹ Such data as are available, namely, rates of interest on commercial paper, Treasury bill yields, high grade bond yields, or (as in Italy) the agreed schedule of minimum rates for loans in lire with its complicated schedule of surcharges, are misleading as indications of rates of interest actually paid on commercial loans of various qualities.

³² See, for example, the survey of prime rates as of February 1962 published by the National City Bank of New York in its Monthly Letter, March 1962. Effective prime rates are frequently higher than the stated rates by reason of commissions, stand-by fees, or other supplementary charges.

³³ The Bank for International Settlements surveyed this field in 1957 in *Credit and Its Cost* (C.B. 268). It would be most helpful if this question could now be resurveyed. It is even more important now than it was in 1957 to obtain adequate continuing statistical series, on an overall or sample basis, describing nominal and effective interstate rates paid on various kinds and sizes of loans in domestic and foreign currency. The Banca d'Italia in its Annual Report, 1961, commented on the need to obtain and compare the effective debtor and creditor rates of interest of different countries (p. 416).

³⁴ The rates paid to Italian banks would be higher than the London rates quoted, but the differential would not necessarily be eliminated.

to par. Spot lire and spot Swiss francs were at the ceiling with respect to the dollar and were expected to remain there. Hence, there was little reason to buy Swiss francs forward, even if the cost was small.

Considerations of this nature clearly have important implications with respect to the extent that different currencies will be used in foreign currency markets. These considerations are related to the strength, both spot and forward, of dollars and sterling in relation to continental European currencies.

Rates of interest paid on deposits of sterling and other nondollar currencies are closely related to those paid on Euro-dollars. Published data tend to understate the closeness of this relationship, because they cannot reflect precisely the prices at which transactions were carried out.³⁵

In the first 8 months of 1962, the difference between the actual interest rate payable on sterling deposits (5.10 percent) and the calculated cost of sterling obtained through swapping dollar deposits (5.09 percent) was negligible (table 3). In 1961, considerable amounts of sterling were sold without forward cover in the first 6 months, and considerable amounts were bought without forward cover in the last 6 months. Even so, the difference between the rate of interest on sterling deposits (6.60 percent) and the calculated cost of sterling obtained by swapping dollar deposits (6.50 percent) was only 11 basis points.

Similarly, the interest rate that can be paid on any other nondollar currency tends to correspond to the dollar rate adjusted for swap costs. Thus, in one set of quotations by one operator offering an interest rate of 3.75 percent on 90-day dollars, the calculated cost of dollars obtained via other currencies was: Swiss francs, 3.61 percent; deutsche mark, 3.72 percent; and guilders, 3.52 percent.

These relationships also hold for any one institution, whatever the rate it pays for dollar deposits in relation to the prevailing range of market rates. Thus, when the Magyar National Bank of Hungary offered (as of February 5, 1962) to pay 4.38 percent for 90-day dollar deposits, or at least three-fourths percent over the London rate, its rates on other currencies were correspondingly above their market rate: dollars via Swiss francs cost 4.22 percent, and via deutsche mark, 4.35 percent. In general, however, the rates of interest on deposits of different currencies paid by the banks in the Communist bloc appear to be less closely arbitrated than those in Western Europe.³⁶

Although the preceding discussion has emphasized forward cover (swaps and covered interest arbitrage), it should not be inferred that all transactions are continuously covered. Banks may carry open positions for considerable periods. They have been known to carry short positions in particular currencies over a long string of weekends when they expected changes in exchange parities. On the whole, there is a greater incentive for banks and other business enterprises to cover when transactions are for short periods rather than long, and when the costs of cover are moderate rather than large. Published reports

³⁵ Published data on interest rates and on spot and forward exchange rates are not compiled for exactly the same points in time. Neither can they take proper account of the range of deposit rates and of spreads between buying and selling rates of both spot and forward exchange.

³⁶ This is not true of the two Communist-run banks in Western Europe: the Moscow Narodny Bank in London and the Banque Commerciale pour l'Europe du Nord in Paris.

invariably understate the extent to which banks operate with uncovered positions, since banks window dress on reporting dates. Nevertheless, commercial banks and exchange dealers arbitrage and cover to such an extent that unarbitrated differentials are reduced to very small proportions.

According to Einzig, arbitrage is undertaken now on much smaller margins than before World War II. In normal conditions, banks and foreign exchange dealers "are now content with a profit margin of one-sixteenth percent or even less. Very often they are prepared to operate without a profit, just in order to be in the market * * *"³⁷

TABLE 3.—Rates of interest on 90-day sterling deposits in Paris, and on sterling obtained through dollar swaps, 1961–62

[In percent per annum]

End of month	Interest on sterling deposits ¹	Cost of sterling from dollar swaps			Difference, sterling interest and dollar swaps (1-4)
		Interest on dollar deposits ²	Discount on forward sterling ³	Cost of sterling (2+3)	
	(1)	(2)	(3)	(4)	(5)
1961—March.....	6.00	3.69	2.14	5.83	0.17
April.....	5.38	3.66	1.88	5.54	— .16
May.....	5.38	3.66	1.88	5.54	— .16
June.....	7.38	3.50	3.68	7.18	.20
July.....	7.75	3.38	4.11	7.49	.26
August.....	7.25	3.31	3.92	7.23	.02
September.....	7.56	3.38	3.82	7.20	.36
October.....	6.25	3.44	2.75	6.19	.06
November.....	6.38	3.63	2.67	6.30	.08
December.....	6.69	3.88	2.58	6.46	.23
Average.....	6.60	3.55	2.94	6.50	.11
1962—January.....	6.19	3.44	2.49	5.93	.26
February.....	6.00	3.50	2.66	6.16	— .16
March.....	5.75	3.66	2.04	5.70	.05
April.....	5.13	3.41	1.51	4.92	.21
May.....	4.31	3.81	.80	4.61	— .30
June.....	4.50	3.75	.80	4.55	— .05
July.....	4.50	3.84	.62	4.46	.04
August.....	4.38	3.78	.62	4.40	— .02
Average.....	5.10	3.65	1.44	5.09	.....

¹ In Paris, as reported in Bank of England, Quarterly Bulletin.

² In London, as reported in Bank of England, Quarterly Bulletin.

³ IMF, International Financial Statistics.

Thus, when commercial and industrial enterprises borrow foreign currencies, they are faced with a structure of interest rates which is implicitly arbitrated. Many such enterprises do not cover forward, preferring to carry the exchange risk themselves. This risk is small relative to the expected profit from their commercial transactions. Moreover, a continental European importer who borrows dollars may not cover by selling his own currency forward. He may prefer to maintain an uncovered (short) position in dollars. Finally, the cost of forward cover is larger for commercial and industrial enterprises than for banks and exchange dealers because of differences in the forward rate, in applicable stamp taxes, and the like.

³⁷ "Dynamic Theory of Forward Exchange" (1961), p. 50 and ch. V; see also his "The Relations Between Practice and Theory of Forward Exchange," Banca Nazionale del Lavoro, Quarterly Review, September 1962, pp. 227–239.

VIII. INTEREST MARGINS ON EURO-DOLLAR OPERATIONS

The interest margins earned by banks in borrowing and lending Euro-dollars may conveniently be described with respect to four kinds of transactions: between one bank and another, both being of prime name status; other transactions between one bank and another; between banks and commercial or industrial business enterprises having prime status or its near equivalent in one or more foreign money markets; and between banks and other commercial and industrial customers.

(1) The activity of a bank in attracting deposits of dollars and other foreign currencies, for the purpose of placing them with other banks of prime status is conducted, as has already been noted, on narrow margins. Gross interest margins, on an annual basis, may range from one thirty-second to one-eighth percent or perhaps one-fourth percent; margins greater than one-fourth percent are rare. It is clear that a bank cannot accept Euro-dollar deposits with the intention of acting as a financial intermediary unless it itself has a prime name in the market. Indeed, only by capitalizing on its reputation, which enables it to secure deposits at rates somewhat below the market average, can it successfully operate in this way.

(2) When a bank places deposits with other classes of banks, or with banks in other kinds of situations, interest margins vary with estimates of risk, including appraisals of how the borrowing bank will use the funds. Thus, dollar deposits have been placed with banks in some of the countries of the Communist bloc at interest rates for 90-day dollar deposits ranging from 4½ to 5½ percent; that is, at a premium of ¾ to 1¾ percent over the prevailing London rate.³⁸ The U.S.S.R. accepts deposits of dollars and other foreign currencies, and apparently pays lower interest rates than any other country in the Communist bloc.

Japanese banks accept large amounts of dollars and other foreign currency deposits, paying interest rates 2 to 2½ percent higher than those prevailing in the London money market. The usual (and first) explanation of such large interest premiums is greater risk; but this explanation is not as convincing as may appear at first glance.³⁹ Risks involved in placing deposits with Japanese banks do not appear to be substantially greater than those attached to deposits with banks in many other countries, considering Japan's economic and political importance, its high growth rate, and the close supervision exercised by the Japanese Ministry of Finance over the short-term obligations of Japanese commercial banks. The premiums paid by Japanese banks ever since they entered the Euro-dollar market appear to be attributable in large part to two factors other than risk. First, the banks that place dollar deposits with Japanese banks limit their total

³⁸ Deposits are also placed with these Communist bloc banks by the Moscow Narodny Bank and the Banque Commerciale pour l'Europe du Nord. These two Communist-dominated banks have excellent standing in Western markets and can attract dollar and other foreign currency deposits at going rates, so that they can do a profitable business with banks in the Communist bloc at the rates charged by banks in Western Europe.

³⁹ Compare the comments of the Nederlandsche Handel-Maatschappij (Netherlands Trading Society) in its Annual Report (1961): "A limited part of our investing [in 1961] was transacted in Japan. At a later date we reduced the latter investments in view of a deterioration in the Japanese balance of payments. In general, of course, the amount of our foreign investments is partly determined by the maximum risks we feel we can properly run in each country, while paying close attention to the political circumstances in the countries concerned as well as to the state of their balances of payments" (p. 10).

commitments to Japan in line with their policy of diversification, so that premium interest rates do not bring forth much larger supplies. Rather, they are interpreted as additional evidence of risk. Second, because of the high rates of interest that they can charge Japanese borrowers, Japanese banks compete vigorously for the limited amount of deposits that are available. Since the yield on capital is high, there is continuous pressure on loanable resources to finance production and foreign trade. A substantial part, perhaps as much as one-half, of the foreign currency deposits are swapped into yen and used for domestic financing.

Other banks outside of Europe pay rates of interest within the range of those paid by banks in the Communist bloc banks and in Japan, though a few are thought to pay even higher rates.

(3) A commercial or industrial company with international connections has increasingly become able to borrow dollars or other foreign currencies outside its own country. Under these circumstances, it can compel the domestic commercial bank with which it regularly does business (or one of its competitors) to make loans in dollars or foreign currencies at rates of interest lower than those charged on domestic currency loans, i.e., at interest markups lower than those applicable to loans in domestic currency. A bank may well be satisfied with lending dollars to such a customer at a markup of one-half of 1 percent over the cost of obtaining dollar deposits. Even smaller markups are not unknown. Very low markups are associated with attempts by banks to secure new customers; alternatively, they may constitute one element in a well-rounded customer relationship in which the bank expects to make more money on other kinds of transactions.

(4) Finally, there is a broad range of transactions in which banks accept deposits of dollars and other foreign currencies in order to lend them to enterprises that are intermediate between those with international standing and those that cannot command foreign currency loans. The latter enterprises may not be able to command loans in foreign currency because they lack bargaining power, because they are too small, or because they are prevented from doing so by gentlemen's agreements or exchange control regulations.

For foreign currency loans to such customers, an exceptionally good interest markup, from the point of view of the lending bank, would be 2 percent, and a profitable one would be 1-1/2 percent. In many cases, interest margins are undoubtedly lower than these.

Minimum interest rates established by the gentlemen's agreements of Italian commercial banks implied interest markups for foreign currency loans to domestic clients in the spring of 1962 that ranged from 1.56 percent for dollars to 2.40 percent for Swiss francs (table 4).

The opinion is widespread in Italy that these agreed minima tend to overstate actual rates of interest charged, particularly to prime customers. These minimums are subject to severe competition among Italian banks and from foreign banks. It is likely that many dollar and other foreign currency loans are made at considerably smaller markups, perhaps of the order of 3/4 to 1 percent. The relatively high markup on Swiss francs is noteworthy. The high markup more than offset the exchange loss sustained by the banks in buying Swiss francs, when they were at a spot premium, with dollars obtained from

TABLE 4.—*Minimum agreed interest rates and estimated interest markups on foreign currency loans by Italian banks to domestic customers, March 1962*

[In percent per annum]

Currency	Minimum rate ¹	Estimated cost of money to banks ²	Approximate interest markup (1) - (2)
	(1)	(2)	(3)
Dollars.....	5.25	3.69	1.56
Swiss francs.....	5.25	³ 2.85	2.40
Sterling.....	7.50	5.75	1.75
Other convertible currencies.....	5.25-6.50	⁴ 3.37	1.88

¹ From Banca d'Italia, Annual Report, 1961, table 9, p. 230. These minimum rates were established in the latest gentlemen's agreement of Italian banks. The rates on dollars are reported as virtually unchanged since June 1960, though Euro-dollar interest rates changed frequently during this period, and varied between 3.31 and 3.86 percent.

² Rates on dollars (London) and sterling (Paris) are from Bank of England, Quarterly Bulletin.

³ Average of rates quoted privately by a number of participants in foreign currency markets.

⁴ Average of rates on deutsche mark and guilders quoted privately by a number of participants in foreign currency markets.

the Ufficio dei Cambi.⁴⁰ Some commercial borrowers were perhaps willing to pay this higher markup because they repaid their Swiss franc loans with francs they acquired by selling lire. As compared with a dollar-lire transaction, this arrangement either did not call for forward cover or involved forward cover at a much smaller cost.⁴¹

Data relating to other countries suggest a similarly wide range of interest markups on loans in foreign currencies; the markup tends to be smallest for dollars, which are subject to the broadest and most intense competition. It may be concluded that an interest markup of $\frac{3}{4}$ to $1\frac{1}{2}$ percent would apply to the vast majority of dollar loans. Markups of one-half percent would be on the low side but are not uncommon, and markups as large as 2 percent are unusual and explained by particular factors of risk and bargaining power.

Commercial banks in Europe—and this group may in time include branches of United States and Canadian banks on a larger scale—consider it profitable (or necessary) to compete in making loans in dollars and other foreign currencies. This creates gross interest margins that are much lower for loans in foreign currency than for those in domestic currency. Even when the 90-day rate on Euro-dollars in London is 4 percent, banks can make a modest profit lending to large international companies at rates comfortably below the New York prime rate adjusted for compensating balance requirements. Other companies can borrow at rates which are higher, but still below what they would have to pay for loans in domestic currency.

⁴⁰ A premium on forward Swiss francs for 90 days at $1\frac{1}{4}$ percent was reported by the Banca d'Italia in its Annual Report (1961) on p. 226; the premiums reported for 1961-62 in IMF, International Financial Statistics were much smaller. It should be noted that not all Swiss francs loaned by the banks were obtained from dollars. From June 1961 to March 1962, outstanding bank loans in Swiss francs to domestic clients increased from \$179 to \$379 million. Their foreign assets in Swiss francs increased from \$97 to \$123 million, while their deposit liabilities increased from \$91 to \$138 million. Thus, of the net increase of \$226 million of assets denominated in Swiss francs, \$47 million was borrowed abroad, and the balance of \$179 million was financed by buying Swiss francs with dollars. With respect to the former amount, the commercial banks retained the entire interest markup without sustaining an exchange loss on conversion of dollars.

⁴¹ Outstanding loans in Swiss francs to Italian customers, as a proportion of all domestic loans made in foreign exchange, rose from 21 percent in 1960 to 37 percent in March 1962, when they totaled \$379 million (Banca d'Italia, Annual Report (1961), pp. 226, 229). The borrowing customers must have converted a large part of this into other currencies, largely dollars, since imports from Switzerland in 1961 were \$150 million.

Statistics on effective interest rates are incomplete, if only because there is such a wide variety of lending and borrowing rates and additional charges. Whatever the statistics, it is obvious that rates of interest on dollar and other foreign currency loans are competitive both with the prime rate in New York and with loan rates everywhere in Europe,⁴² particularly in view of the willingness of individual banks to adjust their dollar rates to individual situations. In many countries, the cost of loans in dollars and other foreign currencies is lower, and often substantially lower, than the cost of loans in domestic currency. In Switzerland, the prime rate agreed by one of the major commercial bank associations is about 4½ percent for overdrafts, yet foreign banks have made dollar loans in Switzerland at this rate, as well as at rates fractionally lower. In the Netherlands, the prime rate is equal to bank rate plus 1½ percent. From 1958 to April 1962, bank rate was 3½ percent; it was then increased to 4 percent, and the prime rate went to 5½ percent. It was possible to lend dollars profitably at prime rates of 5 to 5½ percent, and only the competitiveness of the larger banks, and their willingness to reduce their interest rates on guilder loans, prevented the wider use of dollar facilities. In France, interest rates on loans are set by the Conseil National du Credit. Trade bills in francs can be discounted at 4 percent but loans may cost 6 to 8 percent. Any company that cannot finance via trade bills, and that is eligible to borrow dollars, finds it cheaper to borrow dollars rather than French francs. In Germany, overdraft rates for prime customers are about 5½ to 6½ percent,⁴³ and those for other customers, about 7½ percent.⁴⁴ The level of interest rates in Norway is suggested by the news report that interest rates on credits in Euro-dollars extended to shipowners by commercial banks in the spring of 1962 were about 1½ percent below normal domestic market rates.⁴⁵ In Denmark, where the rediscount rate has been 6½ percent since the early part of 1961, commercial bank rates range from 7 to 8½ percent, plus, in most cases, a commission fee.

Comprehensive statistics on the structure of interest rates and supplementary charges on loans and overdrafts, i.e., statistics on effective as distinguished from nominal rates, in these and other countries would be very helpful in determining how high interest rates really are and how the rates in different countries compare with each other. Among other things, such statistics would suggest how high Euro-dollar rates can go and still remain competitive, and to what extent business in particular countries bears interest costs much higher than the average.

The major change in the commercial credit markets between 1961 and 1962 is the increased competition in interest rates competition between loans in foreign currency and those in domestic currency. This

⁴² It should be reemphasized that if nominal rates in the United States must be adjusted for compensating balance requirements, nominal interest rates in Europe must be adjusted for such additional costs as standby charges and fees.

⁴³ This is roughly equivalent to the Lombard rate (rate for central bank advances on securities) of 4 percent plus 2 to 2½ percent. The Lombard rate is equal to the central bank discount rate (now 3 percent) plus 1 percent.

⁴⁴ David Rockefeller, president of the Chase Manhattan Bank, which has a branch in Germany testified in 1962 that "I would say that they [interest rates in West Germany] would be perhaps 2 percent higher than ours for loans. Money market rates are little if any higher than in the United States." "Higher Interest Rates on Time Deposits of Foreign Governments: Hearings before the Committee on Banking and Currency, U.S. House of Representatives, on H.R. 12080" (87th Cong. 2d sess.), July 1962, p. 44.

⁴⁵ IMF, International Financial News Survey, July 27, 1962, p. 229.

competition has created a larger and more widely distributed volume of loans in foreign currency, and evoked statements in many European countries that foreign currency loans disturb and threaten the domestic loan market. In some cases, such competition has led to the view that loans in dollars and other foreign currencies constitute unfair competition and that they should be regulated.

Foreign currency loans in Europe have thus carved out an important role on a competitive basis. This role would be larger if existing limitations and special interests did not limit it.⁴⁶

IX. LIMITATIONS ON THE USE OF EURO-DOLLARS

Loans in dollars and other foreign currencies are limited or regulated in three ways.

First, attempts have been made to regulate (i.e., increase) the rate of interest charged on loans in dollars and other foreign currencies. Italy is the clearest example of this, but similar tendencies are apparent in other countries.

Although it is clear (despite the fact that there are no authoritative data) that commercial interest rates in Italy on lira loans have declined substantially in the past decade, the demand for loans in dollars and other foreign currencies is great, because rates in these loans are highly attractive. At the end of 1961, outstanding loans made in foreign currencies totaled \$860 million, including \$550 million in dollar loans; this is equal to almost 7 percent of short-term credits extended by all Italian banks to the domestic private sector (\$12.4 billion).⁴⁷ Agreements among banks, which for many years have set minimum rates of interest charged on loans in lire, were supplemented in the summer of 1961 by two agreements covering rates of interest on loans in foreign currencies. One schedule of rates, agreed by the large commercial banks in Italy, is revised weekly. Another schedule of rates, agreed by a much larger number of banks, is revised infrequently. Each schedule specifies minimum rates of interest applicable to loans made in dollars, sterling, and 10 other foreign currencies. The minima are related, through a system of stated margins, to rates of interest on these currencies in London and other foreign markets.

How effectively these schedules limit competition with respect to interest rates charged on loans in dollars and other currencies is questionable. Nevertheless, the attempt to limit competition by agreement is clear.

Second, under the stress of competition, it is agreed or understood by the banks in some countries, e.g., Germany, that loans in foreign currency should be made only to the import or foreign trade sector, where they are considered to be "natural," and not made to the domestic sector, where they are considered to be "unnatural." This view would

⁴⁶ In considering the role of foreign markets for currencies in countries other than the industrial countries of Europe, and in Canada, additional factors come into play. In Japan, commercial interest rates are much higher than in Europe. Its banks find it profitable to accept dollar deposits at interest rates much higher than prevailing ones. The limitations on the amounts of deposits placed with Japanese banks reflect the concern of the monetary authorities, on the one hand, and the concern of the lending market, on the other. In nonindustrial countries, the demand for any kind of capital, including foreign currency deposits, is very large. Substantial exchange and other risks, however, severely limit the amounts that the market is prepared to lend, not only at market rates, but at substantially higher ones.

⁴⁷ Banca d'Italia, Annual Report (1961), table S 1, p. 370.

divide the national loan market, charging an internationally competitive rate in one part and a domestically regulated rate in the other. Such a division inevitably involves problems of administration and competition for commercial banks, as well as complaints and shopping around by customers. It is probably basically unstable. Under the force of competition, such arrangements are modified for strong companies or industries. Even when an attempt is made to set up such a two-price market—one for importers and one for everyone else—exporting companies, international oil companies, and other large companies have in many cases won for themselves the right to be accorded loans in foreign currencies, with the lower rates of interest applicable to them. In some cases this right spills over to other companies.

Third, in many European countries, the competitive effect of foreign currency loans and, therefore, of lower interest rates, is restricted by exchange or capital control regulations.⁴⁸ Under such regulations, it is impossible for any company in the United Kingdom, France, Italy, the Netherlands, Belgium, Norway, Denmark, and other European countries to borrow foreign currencies, except with the permission of the authorities. In France, for example, only a restricted class of companies is permitted to borrow dollars or other foreign currencies: the major importing companies (including the wool and cotton importers), the oil companies, and some companies engaged in exporting. In most European countries having exchange controls, exceptions are made to allow provision of finance for shipping and transportation companies, exports and imports, and domestic companies engaged in foreign trade and construction. In the United Kingdom, however, exceptions under the Exchange Control Act regulations are much more limited.

The size of the Euro-dollar market is thus artificially limited by gentlemen's agreements, competitive restraints, and exchanges and capital controls. Elimination of any or all of these impediments could greatly increase the demand for dollars and other foreign currencies and intensify the pressure upon domestic interest rates in all the industrial countries of Europe.

X. REGULATION Q AND THE EURO-DOLLAR MARKET

It is often argued that the Euro-dollar market developed because commercial banks in the United States were forbidden by regulation Q to pay rates of interest on time deposits which were competitive with those paid on dollar deposits in Europe. Two conclusions have been drawn from this proposition: first, that the Euro-dollar market is temporary, and exists only by reason of the limitations on interest

⁴⁸ For example, the United Kingdom Exchange Control Act of 1947 provides that "Except with the permission of the Treasury, no person, other than an authorized dealer, shall, in the United Kingdom, and no person resident in the United Kingdom, other than an authorized dealer, shall, outside the United Kingdom, buy or borrow any gold or foreign currency from, or sell or lend any gold or foreign currency to, any person other than an authorized dealer" (ch. 14, pt. I, par. 1(i)). In France, Decree 47-1337 of July 15, 1947, provides that "Any natural person having his usual residence in France, any French juridical person or any foreign juridical person insofar as its agencies in France are concerned, shall be forbidden, except upon authorization of the Minister of Finance, to enter into a contract with a party * * * when the obligations originating from said contract would be stipulated in terms of a currency other than the franc" (art. 59). And in the Netherlands, "It is illegal for residents, otherwise than by virtue of a license to obtain onerous title * * * to foreign means of payment" (Royal Decree on Foreign Exchange Control, Oct. 10, 1945, ch. II, art. 17, par. (1)(c)).

rates imposed by regulation Q;⁴⁹ and second, that the United States should abolish regulation Q, or at least raise ceiling rates substantially on foreign time deposits, in order to limit or "kill" the Euro-dollar market.⁵⁰

In February 1961, the President of the United States, in his message to Congress on the U.S. balance of payments and the gold outflow from the United States, recommended that regulation Q be amended so that the Federal Reserve Board could set maximum rates of interest on time deposits held by foreign governments and monetary authorities which were different from those on time deposits held by others.⁵¹ A bill to exclude rates of interest paid on foreign official time deposits from the general ceilings of regulation Q failed to pass in 1961, but, after extensive hearings, was enacted into law in October 1962.⁵²

It was expected that, after this legislation was approved, the greatest increases in interest rates would be on time deposits with maturities of 30-90 days, or 30-180 days, since rates on such maturities showed the greatest disparities with those on competitive investment media (table 5).

TABLE 5.—Interest rates on time deposits, certificates of deposit and Treasury bills in the United States, and Euro-dollar deposits in London, August 1962

[In percent]

Period (days)	Time deposits		Certificates of deposit ³	U.S. Treasury bills and notes	Euro-dollars ⁴
	Maxima ¹	Actual ²			
30.....	1.0	1.0	3.00	2.60	3.59
90.....	2.5	2.5	3.00	2.90	3.78
180.....	3.5	3.2	3.30	3.05	4.00
360.....	4.0	3.5	3.50	3.18	-----

¹ Maximum rates set under regulation Q for all deposits, domestic and foreign, since January 1962. Since October 1962, these do not apply to foreign official deposits. Time deposits are not usually accepted for periods of less than 30 days because no interest can be paid.

² Rates for 180 and 360 days are estimated. Rates of 3½ percent for 180-270 days by New York City banks and of 3¼ percent for 180 days by 1 bank in San Francisco were reported in the Wall Street Journal (Sept. 14 and Oct. 17, 1962). See also Chase Manhattan Bank, Business in Brief, May-June 1962.

³ Rates quoted are by large New York dealer.

⁴ Rates quoted by 1 large participant in the market.

For those maturities, the rates that banks could previously pay were below those on Treasury bills, so that, as Under Secretary of the Treasury Roosa testified, "there would be increases ranging from 1

⁴⁹ See the statement of Sir Charles Hambro, chairman of Hambros Bank and a director of the Bank of England, reported in *The Economist* (London), May 26, 1962, p. 821, and his speech to the Annual Meeting of Hambros Bank, Ltd., reported in *Financial Times* (London), June 15, 1962, p. 4. The contrary view is strongly stated by Sir George Bolton in "International Monetary Markets," *Quarterly Review of Bank of London and South America*, July 1962, pp. 113-19; see also an article in *The Times* (London), May 22, 1962, p. 18.

⁵⁰ For example, "Dollar Defense Now Aims at Killing 'Eurodollars'" in the *Journal of Commerce* (New York), July 17, 1962. Less dramatic comments have referred to "the challenge of the Euro-dollar market" and the need "to mount an offensive" against it.

⁵¹ Pt. I, sec. 3. The Secretary of the Treasury had had the authority for many years to issue securities to foreign governments and monetary authorities at special rates.

⁵² See Higher Interest Rates on Time Deposits of Foreign Governments: Hearings before the Committee on Banking and Currency, U.S. House of Representatives, on H.R. 12080 (87th Cong., 2d sess.), July 1962, and Report, August 1962; and Interest Rates on Foreign Official Time Deposits: Hearings before the Committee on Banking and Currency, U.S. Senate, on H.R. 12080 (87th Cong., 2d sess.), September 1962, and Report, September 1962.

percent to $2\frac{1}{2}$ percent above present levels."⁵³ Mr. Roosa estimated that foreign governments and international institutions held more than \$2 billion of time deposits and that, with higher interest rates, this amount might gradually be doubled.⁵⁴

By the end of October 1962, a few banks had increased their rates to $2\frac{3}{4}$ percent on 30-90-day deposits and to 3 percent on 91-180-day deposits.⁵⁵ The effect upon the total volume of foreign official time deposits was small, but expected to increase as foreign official liquid assets of all kinds were adjusted to the higher rates. The rates quoted on longer time deposits were the same for foreign and domestic funds, and continued unchanged. At $3\frac{1}{8}$ - $3\frac{1}{4}$ percent for 180 days and $3\frac{1}{2}$ percent for 360 days, they remained below the regulation Q maxima.

The proposition that it is feasible and desirable to raise interest rates on time deposits for foreign governments and monetary authorities may conveniently be discussed from four interrelated points of view: (1) the level and structure of domestic interest rates; (2) the ownership and use of foreign-owned liquid dollar assets; (3) the effects upon the U.S. balance of payments; and (4) the implications for interest arbitrage of interest rate differentials between the United States and Europe. Two collateral but less direct questions are not discussed in this paper. First, the extent to which rates of interest influence foreign governments to convert dollar holdings into gold.⁵⁶ Second, the extent to which there is a fairly regular relationship between balance of payments deficits (or surpluses) and gold outflows (or inflows).⁵⁷

First, eliminating interest ceilings on foreign official time deposits would not necessarily increase the actual rates of interest paid by commercial banks. The rates set under regulation Q are not mandatory; they are maxima. Few large banks have raised their rates on deposits of 180 days and more to the maxima established on January 1, 1962. Commercial banks have succeeded in their attempts to sell certificates of deposit (usually for a period of 1 year), which have brought in more than \$2 billion of time funds. These certificates in October 1962 were sold to yield approximately $3\frac{1}{4}$ percent for 1 year.⁵⁸ Moreover, the large New York City banks have been able to attract large amounts of deposits in London and other foreign markets, most of which are advanced to their head offices in the United States. In general, U.S. banks pay the lowest rates of interest in these foreign markets. When they wanted additional funds for their domestic or other

⁵³ See Higher Interest Rates on Time Deposits of Foreign Governments: Hearings before the Committee on Banking and Currency, U.S. House of Representatives, on H.R. 12080 (87th Cong., 2d sess.), July 1962, pp. 13-14.

⁵⁴ *Ibid.*, pp. 3, 14, 16.

⁵⁵ Wall Street Journal, Oct. 22 and 23, 1962.

⁵⁶ For a recent article that foreign official institutions do not appear to adjust their holdings between gold and dollars in response to short-term or cyclical movements in interest rates, see R. F. Gemmill, "Interest Rates and Foreign Dollar Balances," *Journal of Finance*, vol. XVI (1961), pp. 363-76.

⁵⁷ For a recent statement that gold inflows and outflows in the period 1946-61 were regularly and closely correlated with balance-of-payments surpluses and deficits, see O. L. Altman, "Quelques aspects du problème de l'or," *Cahiers de l'Institut de Science Economique Appliquée*, series R, No. 8 (October 1962).

⁵⁸ These certificates are negotiable and are generally issued in denominations of \$1 million. They are actively traded, and four large dealers now make a market in them. Certificates with a wide range of maturities can be bought in the open market at the going rate of interest.

operations they paid, when necessary, rates somewhat higher than those they paid in the United States.⁵⁹

From the point of view of the 50 or 60 larger banks with foreign accounts, the legislation resulted in 3 sets of rates on deposits instead of 2: a domestic rate for domestic customers and foreign corporations; a domestic rate for foreign governments and central banks at a higher level; and a rate in London and other foreign markets for everyone, including domestic customers and foreign corporations.

It is, however, unreasonable to expect that commercial banks will pay a higher rate to foreign governments and central banks than they would have to pay to secure an equivalent amount of funds from anyone else.⁶⁰ The amount of funds they can attract with domestic rates lower than the permissible maximums set under regulation Q, and with certificates of deposit, limit the amount of time deposits they may wish to attract from foreign governments and monetary authorities at special rates, and the amount of Euro-dollar deposits they may wish to attract from anyone.

There may be persuasive reasons for wishing to realign the structure of interest rates in the United States on time deposits and other forms of savings, and on loans, mortgages, and bonds, to present national and international conditions. This is a complex subject beyond the scope of this paper. But differential increases in the domestic rates of interest on time deposits are not very effective for this purpose. Indeed—though this is considered a virtue—to the extent that additional funds can be obtained in this way, rates of interest on the bulk of time deposits will be unaltered. This will minimize the effects of the cost of money upon rates of interest charged on commercial loans and on securities generally.

Second, if higher rates of interest are paid on dollar deposits of foreign governments and central banks than on those of foreign commercial banks and individuals, foreigners will have a strong reason for changing their ownership of dollar deposits. Foreign commercial banks may be able to make deposit arrangements for their dollars with their central banks, and share in the higher interest returns.⁶¹ On the other hand, dollar funds that central banks now make available to their commercial banks, by swaps and deposits, and that are invested in Euro-dollar deposits and commercial loans, might be placed with commercial banks in the United States as time deposits.⁶²

The effect of alternative investment opportunities in the United States is probably more important than changes in foreign ownership

⁵⁹ For example, in the summer of 1962, the Chase Manhattan branches in Europe paid one-fourth percent more there than in the United States on deposits with terms up to 180 days. See Higher Interest Rates on Time Deposits of Foreign Governments: Hearings before the Committee on Banking and Currency, U.S. House of Representatives, on H.R. 12080 (87th Cong., 2d sess.), July 1962, pp. 62-63.

⁶⁰ Unless, of course, they obtained some unusually profitable additional business as a consequence.

⁶¹ Thus, David Rockefeller, president of the Chase National Bank, in testifying on regulation Q, said that "it is often difficult to draw a line between central bank deposits and other foreign deposits, particularly those of foreign commercial banks. If special rates were offered to central banks, one might well find certain foreign commercial banks lending their dollar deposits to the central bank to gain advantage of the special rate. Such relations between central banks and commercial banks do exist in some countries." Consistent with this view, he recommended "freeing from restrictions the interest rates which can be paid for time deposits from all foreign sources, central bank and other." Higher Interest Rates on Time Deposits of Foreign Governments: Hearings Before the Committee on Banking and Currency, U.S. House of Representatives, on H.R. 12080 (87th Cong., 2d sess.), July 1962, pp. 40-41.

⁶² Alternatively, central banks might require higher rates of interest from their commercial banks.

of deposits. Foreign governments and their official agencies, foreign commercial banks, other foreigners, and international agencies other than the International Monetary Fund, hold large amounts of demand deposits, Treasury bills, and other money market instruments. As of May 1962, their holdings were approximately as follows:⁶³

[In billions]

Deposits with Federal Reserve banks-----	\$0.2
Deposits with other banks-----	10.6
Government securities-----	8.0
Other liquid assets-----	2.0
Total-----	20.8

Of the \$10.6 billion of deposits, about \$3 billion was in the form of time deposits, including \$2.2 billion held by foreign governments and international institutions. Of the \$8 billion of Government securities held by foreigners, about \$6 billion was owned by foreign governments and official agencies.⁶⁴

Rates of interest on Treasury bills and on prime commercial and banking paper are generally lower, for any maturity, than rates on Euro-dollar deposits. Hence, if rates on time deposits in the United States are raised above those on Treasury bills, foreigners will tend to shift funds out of Treasury bills and into deposits. Such shifts could take place on a very large scale without affecting Euro-dollar deposits very much. On the other hand, if interest rates on time deposits are raised enough to affect Euro-dollar deposits substantially, the disinvestment in Treasury bills could be enormous.

Third, the case for raising interest ceilings under regulation Q, or excluding interest rates paid to foreign governments and central banks from the regulation, or abolishing the regulation, has a strong international justification. Such action would add another degree of freedom to the international money market which has been evolving in the United States, and would therefore be desirable.⁶⁵

But the argument is often extended beyond this. It is argued that higher domestic rates on time deposits, by attracting funds that would otherwise go to the Euro-dollar market, will improve the U.S. balance of payments. This argument is not justified. Higher interest rates on time deposits will have little or no effect on the U.S. balance of payments unless rates of interest on commercial loans and on bonds are also raised. Foreigners acquired most of their dollar deposits because the United States had a balance-of-payments deficit; and they will continue to acquire dollar funds if the deficit continues.⁶⁶ Once foreigners own the dollars, the place where they deposit them makes no difference to the U.S. balance of payments. When they transfer their deposits from a New York bank to a London bank, they do not draw out capital—they merely transfer ownership of an existing dollar deposit to another foreigner. When they transfer their deposits from a

⁶³ From IMF, International Financial Statistics, August 1962.

⁶⁴ Federal Reserve Bulletin, July 1962, as reported by Weekly Reporting Banks (p. 862), and Higher Interest Rates on Time Deposits of Foreign Governments: Hearings before the Committee on Banking and Currency, U.S. House of Representatives, on H.R. 12080 (87th Cong., 2d sess.), July 1962, pp. 3, 14, 16, 32-33, 51-52, and 143.

⁶⁵ This general point was made by Under Secretary Roosa. *Ibid.*, pp. 2-6.

⁶⁶ Unless, as is unlikely, all the dollars paid out to finance the deficit are converted into gold and/or paid over to the International Monetary Fund in connection with a U.S. drawing of foreign currencies.

London bank to an American one, they reacquire the claim on the United States that the London bank had previously. Neither of these transactions affects the balance of payments.

Nevertheless, payments of higher rates of interest on already existing foreign-owned dollar balances may well increase the balance-of-payments deficit in the future. For if the U.S. banks attract more time deposits, they will seek out more loans and investments. Some of these will inevitably be foreign.⁶⁷ These will create increases in foreign-owned deposits—as a minimum, to the extent of compensating balance requirements—which will be counted as negative items in the balance of payments as reported by the U.S. Department of Commerce. The fact that the commercial banks will acquire offsetting foreign assets, and that the profitable business will increase domestic earnings from banking services to foreigners, does not change this result.

Fourth, to the extent that a higher rate of interest is paid on time deposits in the United States, and the supply of funds in the Euro-dollar market is reduced, rates of interest paid on Euro-dollar deposits will also rise. Increasing interest rates on Euro-dollar deposits, while maintaining unchanged the rates of interest paid on time deposits to U.S. residents, will stimulate an outflow of capital on the part of U.S. residents. The result would be two-way interest arbitrage. Foreign official funds would move from Euro-dollar markets into U.S. time deposits, and U.S. funds would move into the Euro-dollar market. The net effect on the U.S. balance of payments, as reported by the U.S. Department of Commerce, would certainly be adverse. The transfers by U.S. residents would be counted as a capital outflow, while the additional time deposits in U.S. commercial banks acquired by foreigners would not be considered as capital inflow.

But there is a far more important consideration. To the extent that an increase in the rate of interest on time deposits in the United States increased interest rates on Euro-dollar deposits, loans made with these dollars would lose some of their competitive edge in Europe over loans in domestic currencies. This would reduce—and if carried far enough, it would eliminate—the pressure of loans in Euro-dollars upon interest rates in Europe. Since further reduction of interest differentials between the United States and Europe is desirable, raising interest rates on Euro-dollars would slow down the adjustment. It would throw a larger part of the desirable interest rate adjustment upon the United States. To assume otherwise is to assume that banks will absorb the full effect of higher rates on Euro-dollar deposits in their profit margins. It is impossible to estimate what effect smaller gross interest margins would have on the operations of European commercial banks (as well as on those of European branches of American banks). Once in the business of making loans in dollars and other foreign currencies—a business which in any case is conducted on small margins—they may well be prepared to continue on even smaller margins. But this is not self-evident. Gross interest margins have fallen substantially in the past few years, and there is much question about how much further they can fall without reducing the scope of Euro-dollar operations in Europe.

⁶⁷ As of May 1962, for example, deposits of all foreigners (including international institutions) were about \$11 billion, whereas commercial loans to foreigners (including those with an original maturity of 1 year) were more than \$6 billion. See Federal Reserve Bulletin, October 1962, pp. 1366–1372.

XI. INTERNATIONAL MARKETS AND DOMESTIC MONETARY POLICY

The preceding discussion has emphasized the extent to which short-term money markets in the major industrial countries have become internationalized and unified since 1958. These developments have affected the private cost of credit and the availability of credit for financing both domestic trade and international trade. They have mobilized liquid capital on a large scale, which is often as important in determining the source and direction of financing as favorable rates of interest. Euro-money deposits, by providing a new and extremely flexible monetary instrument, have supplemented the investment media open to banks in their respective countries. The increasing "oneness" of money markets has facilitated the movement of capital in response to interest rate differentials.

Operations in dollars and other foreign currencies have brought new opportunities as well as new problems to central banks and monetary authorities.

Euro-dollars have provided a number of central banks with a powerful and flexible monetary instrument which can be used to control domestic liquidity and the import or export of short-term capital.

The Bundesbank, through its swap transactions, reduces liquidity of commercial banks in deutsche mark and increases their liquidity in dollars. The Bundesbank adjusts domestic liquidity by open market operations with dollars, as well as by operations with domestic assets. When the dollars are provided on the understanding that they will be invested abroad, the net effect is a reduction of domestic liquidity. The Bundesbank has frequently varied the terms of dollar swap transactions, most often by modifying premiums or discounts. These variations reflect changes in the domestic credit situation, changes in rates of interest at home and abroad, and the state of the balance of payments. In the past 18 months, the Bundesbank made more changes in the terms of swap transactions than in all other monetary instruments combined. This does not imply that open market operations in dollars were a substitute for other monetary instruments, such as changes in reserve requirements, definition of reserves, and discount rates. Rather, open market operations in dollars are a supplementary instrument, which can be used to achieve a finer adjustment of instrument to policy.⁶⁸

The Banca d'Italia has similarly used dealings in dollars to carry out or reinforce its monetary policy. To tighten domestic liquidity, it swapped dollars for lire with Italian commercial banks. To make sure that this dollar liquidity did not stay home, and to increase its control over domestic money markets, the Banca d'Italia in 1960 required banks to maintain balanced asset/liability positions in foreign currencies. When domestic liquidity began to tighten at the end of 1961, it reduced its swap transactions and increased its dollar deposits. Deposits did not require withdrawal of the lira counterpart, and hence were expansionary. When liquidity began to increase in the first quarter of 1962, the Banca d'Italia reduced dollar deposits

⁶⁸ Swap transactions and allied instruments are discussed in the Deutsche Bundesbank, Annual Report, 1961, and in the Monthly Reports for January, April, July, and October 1962. As one German bank stated it, "The Bundesbank deliberately encouraged this export of money by the banks; it did so by letting them fix the forward exchange rate on cheap terms, sometimes even allowing a premium on the employment of funds abroad." (Berliner Bank A.G., Annual Report, 1961, p. 11.)

and increased dollar-lira swaps. The primary objective of these and associated policies was to adjust domestic liquidity to domestic requirements and policy. But, as noted by Guido Carli, Governor of the Bank—

the effects of all this went far beyond domestic liquidity control; they served also to intensify our banking system's international business and to adapt the average cost of borrowing on the Italian market more closely to the rates on the principal financial centers abroad. As a result, Italian banks have been able to improve and to cheapen their services to their clients.⁶⁹

Some of the recent swap transactions between the Federal Reserve Board and European central banks serve similar domestic purposes, although they are often considered only as a way of adding currencies to the international reserves of the United States. One important purpose of the Swiss authorities served by the swap of \$50 million in the summer of 1962 between the Federal Reserve Board and the Swiss National Bank was the reduction of Swiss domestic liquidity. The parallel swap for \$60 million with the Bank for International Settlements had the same effect. Under both arrangements, the Swiss francs came from deposits made by Swiss commercial banks.⁷⁰ The counterpart was an increase in dollars whose conversion into Swiss francs was covered forward.⁷¹ These dollars were used to buy U.S. Treasury securities; and these additional holdings could release other funds to the Euro-dollar market. However this may be, the Swiss National Bank was assisted in carrying out its monetary policy to reduce domestic liquidity.

Central banks have thus made dollars available to domestic commercial banks through swaps or deposits, as well as to foreign commercial banks through deposits. Such operations have increased the funds in the Euro-dollar market, slowed down the conversion of dollars into gold, and sometimes led to higher interest earnings.

On the other hand, the Euro-dollar market, and the growing internationalization of short- and long-term capital markets, will probably make it more difficult to carry out large changes of monetary policy.⁷² It is easy to expand liquidity and encourage domestic commercial banks to supplement their domestic assets with foreign assets. It is quite another matter to reverse the process. An attempt to tighten liquidity will stimulate the repatriation of funds. An increase of domestic interest rates at home will permit both domestic and foreign banks to make loans in dollars and other foreign currencies on the home market at international rates.

This suggests that the extent to which domestic situations can be corrected by sharp movements of interest rates has become much more limited in the past few years. The use of large changes of interest rates has not only become limited—it has perhaps become dangerous because it stimulates capital flows on a large scale without any long-run purpose. Such capital flows may be so large that they become difficult to finance. This may be even more the case if interest arbitrage is accompanied by speculative capital movements, with the

⁶⁹ "An Active Control of Bank Liquidity," *The Statist*, Apr. 6, 1962, p. 6.

⁷⁰ See *Neue Zürcher Zeitung*, July 29, 1962; IMF, *International Financial News Survey*, Aug. 10 and Sept. 14, 1962; and *Federal Reserve Bulletin*, September 1962, pp. 1148-1149.

⁷¹ In general, swap arrangements between the Federal Reserve and a European central bank protect each party against a change in the relative value of the other party's currency, but they do not protect either party against the effects of parallel devaluation or a uniform change in the price of gold.

⁷² See, for example, Paul Einzig's "Statics and Dynamics of the Euro-Dollar Market," *Economic Journal*, September 1961, pp. 592-595, and "Towards an International Money Market," *The Statist*, Nov. 17, 1961, pp. 925-926.

course of spot and forward exchange rates casting doubt upon the existing exchange parities. The benefits achieved by the Bank of England in raising bank rates to 7 percent in 1960 were considerable and immediate. But the effects upon international capital flows, confidence in the gilt-edge market, and the shifting of United Kingdom local authority financing toward the short end of the market were also considerable.

XII. FOREIGN CURRENCY MARKETS: STABILITY AND SPECULATION

Other important aspects of the markets for foreign currencies are their stability and the amount of speculation they finance. These are questions of life and death for central banks, since it is they and not commercial banks who are responsible for the proper functioning of the domestic and the international monetary systems.

In view of the relatively short history of the Euro-dollar market, it is impossible to give conclusive descriptions to these aspects.

There has as yet been no evidence that the market for Eurodollars has been, or could become, very unstable, and that attempts by banks and other participants in the market to reduce or unwind their positions could be very damaging.⁷³ On the contrary, operations of the Euro-dollar market have shown surprisingly moderate fluctuations in interest rates in view of the very large movements of funds into and out of the market.

Misgivings have also been expressed that the operations of the Euro-dollar market facilitate, if indeed they do not encourage, speculation and unsound credit.

It is quite likely that the major part of speculation in gold is financed with bank credit. Gold can be purchased in major European markets with a down payment as small as 5 percent. The amount of the down payment varies with the closeness of the customer relationship as well as with the price of gold. As the purchase price rises over \$35 an ounce, the amount of the down payment increases, in line with the greater risk that the price may fall. The rate of interest charged on the unpaid balance is moderate, and is often related to the rate on Eurodollars, which constitute funds for some of this financing. But there was speculation in gold financed by bank credit long before there were Eurodollars. Commercial banks in many countries have substantial resources which can be and are used to finance speculations in gold. Interest differentials are not decisive in gold speculation, which is undertaken in the hope of wide gains.

Views on the relationship of Euro-dollars to gold speculation are purely conjectural. There is no information as to the total volume of gold purchases financed with bank credit, let alone with funds obtained from the Euro-dollar market. In the interests of completeness, it might be added that while gold production in the free world is known, Russian sales of gold can be estimated fairly well, and the gold additions to monetary reserves are known with a high degree of accuracy, there are only estimates ranging from fair to indifferent about the volume of hoarding, the amount of gold turnover on the London and

⁷³ Paul Einzig has discussed "the perturbing potentialities of foreign currency deposits in general and of Eurodollars in particular" in his "Dangerous Possibilities of Euro-dollar System," *Commercial and Financial Chronicle*, Jan. 25, 1962.

other markets, and the quantities of gold bought and sold at any price in any market. For example, no exact data have ever been made public, if indeed they exist, on the volume of gold that changed hands at different prices during the speculative bubble on the London gold market in the last quarter of 1960.

Somewhat different considerations apply to the question whether the Euro-dollar market facilitates speculation against sterling or the dollar. It is fairly difficult to measure leads and lags with any precision and, even more, to evaluate the extent to which Euro-dollar and Euro-sterling dealings influence them. In one sense, it may be said that anyone who borrows dollars or sterling, which he will repay by selling other currencies, is speculating unless he covers forward. It is reasonable to suppose that some speculation against the dollar and sterling can be facilitated by Euro-money operators. It is important, however, to keep this possibility in perspective. The fact that dollars are placed in the Euro-dollar market rather than used to buy gold for official reserves indicates that somebody is not speculating against the dollar. Moreover, the pressure on the dollar that could be caused by even a minor shift in the rate of payments to and from the United States (leads and lags) would be greater than the amount of speculation that could be financed by the Euro-dollar markets.

XIII. SUMMARY

An earlier article (written in 1961) concluded that operations in foreign markets for dollars, sterling, and other currencies had (1) influenced the structure and the level of interest rates in a number of European countries; (2) reduced the cost of foreign trade financing, and probably increased the amount of such financing available to Japan and perhaps a few other countries; (3) increased the importance of the dollar as an international currency used in trade and finance; (4) increased liquidity, both national and international; and (5) limited or, at the least, modified the scope of domestic monetary policy, by bringing interest rates in various industrial countries into a new and closer alinement.

Recent developments in these markets have strengthened these findings and suggested some additional ones.

The size of foreign currency markets, already substantial in the middle of 1961, has increased significantly. In June 1962, foreign currency deposits by nonresidents in London were probably about \$2.5 billion, and those in Paris were about \$800 million. Foreign currency deposits in other European centers, particularly Frankfurt, Rome, and Zurich, were sizable. The total in all European markets was less than the sum of these figures because of the considerable amount of duplication among markets. Nevertheless, the total in European markets was at least \$3 billion, and \$3.5 billion was probably closer to the mark. In addition, Canadian banks held substantial deposits of foreign currencies, principally U.S. dollars. These banks had, in turn, made substantial deposits of dollars in Europe and elsewhere, and large amounts of investments and loans in the United States. The amount of dollars and other foreign currencies in all foreign markets, after allowing for duplications and large gaps in the

statistics, can be no more than a guess, perhaps a very wild guess. For what it is worth, this guess as of mid-1962 would be \$4-\$5 billion.

U.S. dollars constituted about 85 percent of the total funds in European foreign currency markets. This percentage was considerably higher in London than in any other European center.

At least two-thirds of the funds in these markets came directly or indirectly from central banks and monetary authorities. Some provided their own commercial banks with dollars through swaps or deposits; some deposited dollars with the Bank for International Settlements, which in turn participated in the Euro-dollar market; and some made dollar deposits with foreign commercial banks. It is probable that the central banks and monetary authorities of 20 or 25 countries held, directly or indirectly, deposits of dollars and sterling outside the United States and the United Kingdom, respectively.

Dollars and other foreign currencies were used in more countries in mid-1962 than a year earlier. Banks in 25 or 30 countries used such funds in mid-1962 to make loans to their customers in foreign or domestic currency, to extend credit to public bodies, and to make foreign investments. Euro-dollars and other foreign currencies were used in practically every country in Western Europe and in many countries in the Communist bloc. In addition, commercial banks in a number of countries used large amounts of dollars to modify the amount and character of their assets and to improve their liquidity.

In 1962, average rates of interest in London on dollar deposits for 3 months ranged from 3.4 to 3.8 percent. Rates of interest were highly competitive; they were also very sensitive to differences in credit standing and position, so that there could be a spread of interest rates at any one time as much as three-fourths of 1 percent. Rates paid on deposits of other currencies were roughly equal to those paid on dollar deposits, allowing for swap costs.

Dollars and other foreign currencies were loaned at highly competitive rates in practically every country in Europe, even in such low-interest-rate countries as Switzerland and the Netherlands. Loans in dollars and other currencies in Europe have put strong pressure on interest rates in domestic currencies. This pressure varies from country to country in accordance with the limits placed on foreign currency loans by exchange control and other regulations and by actions taken by banks themselves to limit competition.

Foreign markets for dollars and other currencies in mid-1962 did not appear to be overextended; instead, they were artificially limited. If these limitations were reduced, the demand for dollars and other foreign currencies would increase, with intensified pressure upon interest rates in Europe.

There is one opinion that the market is a transitory phenomenon which will die a natural death, and another opinion that efforts should be made to "kill" the Euro-dollar market. The findings of this article do not support either opinion. The present supply of dollars, whether owned by foreigners or made available by Americans, is adequate to keep the market going. Eliminating the balance-of-payments deficit of the United States would strengthen the dollar; and this would tend to bring more currencies into the market. It is likely, therefore, that the real limit to the size of the market is a much closer alignment of

interest rates and credit availabilities in Europe and North America.

In October 1962, the United States freed foreign official time deposits from the interest ceilings imposed under regulation Q. It is not clear, however, that commercial banks are prepared to raise interest rates selectively to any great extent, nor what additional amount of deposits they can obtain by so doing. Raising interest rates on time deposits to a level high enough to attract several billion dollars of additional time deposits will reduce funds now invested in Treasury bills, other investment media in the United States, and the Euro-dollar market. If funds in the Euro-dollar market decrease, interest rates on Euro-dollars will rise. An important force that is working to lower interest rates in Europe would be weakened. Moreover, a rise in interest rates in Euro-dollar deposits would easily worsen the U. S. balance of payments, as currently measured, by stimulating the outflow of U.S. funds.

APPENDIX I

TABLE 6.—Oversea deposit accounts and advances of oversea banks and accepting houses in London, 1955-62—Data include values denominated in sterling, dollars, and other foreign currency

[In millions of U.S. dollars]

	1955, December	1956, December	1957, December	1958, December	1959, December	1960		1961				1962	
						June	December	March	June	September	December	March	June
I. British oversea banks: ¹													
A. Current and deposit accounts:													
1. Oversea banking offices.....	856	863	796	916	943	932	972	1,051	1,023	1,046	1,044	1,089	1,154
2. Other oversea residents.....	227	160	169	229	414	480	582	542	610	598	568	601	679
3. Total oversea deposits.....	1,082	1,023	965	1,145	1,357	1,412	1,554	1,593	1,633	1,644	1,612	1,690	1,833
B. Advances and other accounts:													
1. Oversea banking offices.....	159	135	154	220	277	342	381	503	526	540	529	531	534
2. Other oversea residents.....	38	52	45	55	59	62	114	158	150	85	105	171	168
3. Total oversea advances.....	198	187	199	275	336	405	495	661	676	625	634	702	702
C. Net: Deposits minus advances:													
1. Oversea banking offices.....	696	727	642	696	667	590	591	548	497	506	515	558	620
2. Other oversea residents.....	188	108	125	174	354	418	468	384	400	513	463	430	511
3. Total.....	885	836	767	870	1,021	1,008	1,059	932	957	1,019	978	988	1,131
II. American banks: ²													
A. Current and deposit accounts:													
1. Oversea banking offices.....	74	69	70	81	199	548	558	662	607	631	567	600	679
2. Other oversea residents.....	31	27	74	108	101	260	254	247	381	369	341	355	372
3. Total oversea deposits.....	105	96	145	199	361	808	812	909	988	1,000	908	955	1,051
B. Advances and other accounts:													
1. Oversea banking offices.....	46	39	36	32	155	587	621	720	747	752	629	693	780
2. Other oversea residents.....	5	6	45	42	34	81	32	56	102	76	77	82	73
3. Total oversea advances.....	51	45	81	74	188	668	654	776	849	828	706	775	853
C. Net: Deposits minus advances:													
1. Oversea banking offices.....	28	30	34	49	45	-39	-63	-58	-140	-121	-62	-93	-101
2. Other oversea residents.....	26	21	30	66	128	179	221	191	279	293	264	273	299
3. Total.....	53	51	64	115	172	140	158	133	139	172	202	180	198

TABLE 6.—Oversea deposit accounts and advances of oversea banks and accepting houses in London, 1955-62—Data include values denominated in sterling, dollars, and other foreign currencies—Continued

[In millions of U.S. dollars]

	1955, December	1956, December	1957, December	1958, December	1959, December	1960		1961				1962		
						June	December	March	June	September	December	March	June	
III. Other foreign banks. ³														
A. Current and deposit accounts:														
1. Oversea banking offices.....	290	167	193	307	371	388	592	612	540	470	532	648	577	
2. Other oversea residents.....	47	49	54	101	85	114	111	120	114	109	104	126	128	
3. Total oversea deposits.....	337	216	247	408	455	502	703	732	663	579	636	774	705	
B. Advances and other accounts:														
1. Oversea banking offices.....	39	45	43	55	120	129	197	171	209	200	198	195	198	
2. Other oversea residents.....	8	10	9	12	33	24	44	50	47	44	51	62	57	
3. Total oversea advances.....	46	54	52	66	153	154	241	221	256	244	249	257	255	
C. Net: Deposits minus advances:														
1. Oversea banking offices.....	251	122	150	252	251	258	394	441	340	270	334	453	379	
2. Other oversea residents.....	39	39	45	90	52	90	67	70	67	65	53	64	71	
3. Total.....	290	161	195	342	303	349	462	511	407	335	387	517	450	
IV. Accepting houses. ⁴														
A. Current and deposit accounts:														
1. Oversea banking offices.....	89	93	85	129	180	279	365	367	342	386	433	462	515	
2. Other oversea residents.....	139	143	139	184	228	263	335	313	321	328	365	442	422	
3. Total oversea deposits.....	228	236	224	313	407	532	700	680	663	714	798	904	937	
B. Advances and other accounts:														
1. Oversea banking offices.....	18	19	21	32	58	107	142	107	156	186	197	183	255	
2. Other oversea residents.....	28	36	37	44	66	78	105	74	162	136	148	157	190	
3. Total oversea advances.....	46	55	58	77	123	185	249	181	318	322	345	340	445	
C. Net: Deposits minus advances:														
1. Oversea banking offices.....	71	74	64	97	122	171	223	260	186	200	236	279	260	
2. Other oversea residents.....	111	106	102	140	162	175	227	239	159	192	217	285	232	
3. Total.....	182	180	166	237	284	347	450	499	345	392	453	564	492	

V. Total—Oversea banks and accepting houses:

A. Current and deposit accounts:													
1. Oversea banking offices.....	1,309	1,191	1,145	1,433	1,693	2,147	2,486	2,692	2,521	2,533	2,576	2,799	2,925
2. Other oversea residents.....	442	375	437	623	837	1,107	1,282	1,222	1,426	1,404	1,378	1,524	1,601
3. Total oversea deposits.....	1,752	1,570	1,582	2,056	2,580	3,254	3,768	3,914	3,947	3,937	3,954	4,323	4,526
B. Advances and other accounts:													
1. Oversea banking offices.....	263	238	254	339	609	1,166	1,341	1,501	1,638	1,678	1,553	1,602	1,767
2. Other oversea residents.....	79	104	135	153	192	245	298	338	461	341	381	472	488
3. Total oversea advances.....	342	342	389	493	801	1,411	1,639	1,839	2,099	2,019	1,934	2,074	2,255
C. Net: Deposits minus advances:													
1. Oversea banking offices.....	1,046	953	890	1,094	1,084	981	1,145	1,191	883	855	1,023	1,197	1,158
2. Other oversea residents.....	364	274	302	469	696	862	984	884	965	1,063	997	1,052	1,113
3. Total.....	1,410	1,228	1,192	1,564	1,780	1,843	2,129	2,075	1,848	1,918	2,020	2,249	2,271

¹ A group of 33 banks, including the Bank of London & South America, Ltd., and all the Canadian banks with offices in the United Kingdom.

² 8 American banks with branches in London.

³ A group of 19 foreign banks other than American and British overseas. The list does not include all of the foreign banks in the United Kingdom, e.g., the Bank of Tokyo, the Sanwa Bank, the Moscow Narodny Bank, and the London agency of the Banca Nazionale del Lavoro.

⁴ The accepting houses cover 17 companies, including Brown, Shipley & Co., Ltd., Samuel Montagu & Co., Ltd., and Hambros Bank, Ltd.

Source: Bank of England, Quarterly Bulletin, September 1962, tables 11A, 11B, 11C, and 12, and notes to them. The following definitions apply to the terms used in these tables: (1) Current and deposit accounts: Bank customers' funds whether transferable

or withdrawable on demand (current accounts) or lodged for a definite period or subject to agreed notice of withdrawal (deposit accounts). Data include deposits denominated in sterling and the sterling equivalents of foreign currency deposits. (2) Oversea banking offices: All banking offices located outside the United Kingdom, irrespective of the locations of the registered (or head) offices. (3) Other oversea residents: Governments, companies, persons, etc., whose registered address or permanent domicile is outside the United Kingdom. These tables do not include the London clearing banks or the Scottish or Irish banks. (4) The contributing institutions to the tables are those which, at the dates shown, were members of the following groups: Overseas Banks Association, American Banks in London, Foreign Banks and Affiliates Association, and the Accepting Houses Committee. The banks included under each heading are described in Quarterly Bulletin, September 1962, pp. 230-231.

APPENDIX II

FOREIGN CURRENCY DEPOSITS IN LONDON, JUNE 1961

The data presented in appendix I cover the deposits to the credit of nonresidents—classified as overseas bank and other nonresidents—denominated in sterling and foreign currencies. The data do not separate deposits in sterling from those denominated in dollars and other foreign currencies.

Deposits of nonresidents increased sharply after 1957. Part of this increase is attributable to sterling deposits. However, as the Bank of England observed, "most of the steep rise shown since 1958 has occurred in foreign currency deposits, predominantly in U.S. dollars or Euro-dollars."⁷⁴ It may be that, if complete statistics were available, part of the increase of \$470 million in 1958 (table 7) would be accounted for by deposits denominated in foreign currencies.

TABLE 7.—*Deposits of overseas banks, accepting houses, and clearing house banks, 1957-62*

	Deposits of nonresidents ¹ (dollars in billions)			Deposits of residents ¹ (pounds in millions)		Gross deposits of clearing banks ² (pounds in billions)
	Total	Overseas banks	Accepting houses	Overseas banks	Accepting houses	
1957.....	1.6	1.4	0.2	174	71	6.9
1958.....	2.1	1.7	.3	194	100	7.2
1961:						
March.....	3.9	3.1	.7	405	167	7.2
June.....	3.9	3.3	.7	397	193	7.4
December.....	4.0	3.2	.8	391	209	7.6
1962:						
March.....	4.3	3.4	.9	397	229	7.4
June.....	4.5	3.6	.9	420	261	7.6

¹ Deposits by overseas banks and other nonresidents, from app. I. Data are rounded, and may not add to totals.

² From "Economic Trends."

Gross deposits of the clearing banks, which are overwhelmingly sterling deposits of residents of the United Kingdom and the rest of the sterling area, increased by 4 percent between 1957 and 1958, and by 6 percent between December 1958 and June 1962. Deposits of United Kingdom residents with the overseas banks and accepting houses, also in sterling, increased much more than this, largely because these enterprises paid higher rates of interest on time accounts than the clearing banks. For the same reason, sterling deposits for the account of nonresidents with overseas banks and accepting houses might also be expected to increase. Thus, the nonresident deposit figures of overseas banks and accepting houses, which include deposits in sterling and in other currencies, should be adjusted for the increase of deposits denominated in sterling in order to obtain estimates of deposits denominated in foreign currencies.

The Bank of England's estimate of nearly \$1.4 billion of foreign currency deposits with the overseas banks of June 1961⁷⁵ was based

⁷⁴ Bank of England, Quarterly Bulletin, September 1961, p. 19.

⁷⁵ Bank of England, Quarterly Bulletin, September 1961, p. 20.

on a special survey. According to regularly published figures, deposits of nonresidents with the oversea banks increased from \$1.7 billion in 1958 to \$3.3 billion in June 1961, or by \$1.6 billion. If the end of 1958 is assumed to mark the beginning of Euro-dollar operations by oversea banks, these figures suggest that sterling deposits increased by \$200 million (12 percent) from December 1958 to June 1961. There may be some question, however, whether 1957 is not a more appropriate starting point, and whether part of the \$300 million increase of nonresident deposits in oversea banks in 1958 may not also be attributable to deposits of dollars. If 1957 is a more appropriate starting point than 1958, the Bank of England's estimate of \$1.4 billion would be too low by at least \$250 million.

In the same way, the data covering accepting houses suggest that their foreign currency deposits as of June 1961 totaled at least \$300 million. Use of end 1957 as a starting date instead of end 1958 suggests a minimum of \$350 million.⁷⁶

There are other omissions in the estimate of \$1.4 billion as of June 1961. The clearing banks accept foreign currency deposits and at least one of them is active in the Euro-dollar market. A number of foreign banks, notably the Moscow Narodny Bank, the Sanwa Bank, and the Bank of Tokyo, are not included in the regularly published totals or in the survey.

On the whole, an estimate of \$2 billion for foreign currency deposits (largely in dollars) as of June 1961 in London would appear conservative.

⁷⁶ Hambros Bank, which is classified in the Bank of England statistics as an accepting house, was the first important financial institution in London to distinguish publicly between its deposits in sterling and in foreign currencies. Its annual report for the fiscal year ending Mar. 31, 1962, showed that deposits in sterling were £80 million in 1962 and £72 million in 1961, and that deposits in foreign currencies were £28 million and £9 million, respectively. Total deposits in all currencies in earlier years were: 1960, £74 million; 1959, £67 million; 1958, £57 million; and 1957, £50 million. On the assumption that Hambros' Euro-dollar operations began after Mar. 31, 1958, these figures show that in the next 4 years sterling deposits increased by £23 million (40 percent), and foreign currency deposits, by £28 million. If these figures were representative, the accepting houses reported in the Quarterly Bulletin increased their Euro-dollar deposits in the same period by only \$210 million. This increase is probably too small, since it is unlikely that Hambros Bank held as much as 13 percent of the Euro-dollar deposits held by all accepting houses as of March 1962.

CANADIAN MARKETS FOR U.S. DOLLARS

By

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INTERNATIONAL MONETARY FUND

525

CANADIAN MARKETS FOR U.S. DOLLARS¹

SUMMARY

The operations of Canadian banks in foreign currencies, principally in U.S. dollars, have been growing rapidly in recent years. Foreign currency deposits increased by US\$680 million in 1961, and by US\$330 million in the first 6 months of 1962, reaching a total of US\$3.7 billion.² Approximately 16 percent of this total consisted of deposits of other banks. Deposits of nonbanking enterprises and of individuals accounted for the balance and were a larger proportion than they had been for several years.

Though a substantial part of these foreign currency (principally U.S. dollar) deposits were made in accordance with normal customer and trade relationships, the increases in recent years are largely the result of the willingness of Canadian banks to pay higher interest rates than those paid by New York banks and of their ability to find profitable outlets for these additional funds. In 1961, two other factors served to stimulate the growth of U.S. dollar deposits: the Canadian withholding tax on corporate dividends was increased from 5 percent to 15 percent, and some deposits in Canadian dollars were shifted to U.S. dollars in anticipation of changes in the Canadian exchange rate.

In 1961, increases in deposits with other banks and in loans other than "street" loans were unusually large and accounted for practically all of the increase in foreign currency assets (US\$716 million). Deposits with other banks increased by US\$431 million to US\$965 million. These deposits represented funds placed in Euro-dollar markets, largely London, but also Paris and other continental centers; they further increased the important role of Canadian banks as suppliers of Euro-dollars. Other current loans increased by US\$208 million to \$1,025 million. This increase largely represented commercial loans made in U.S. dollars to U.S. and Canadian corporations in Canada and to corporations in the United States.

Foreign currency assets (largely dollars) of Canadian banks at the end of 1961 consisted of deposits with other banks, 28 percent; securities, mostly short-term U.S. Government securities, 19 percent; "street" loans (call and short-term loans to brokers and dealers in New York), 23 percent; and other loans, 30 percent. Considerably more than half of the total represented liabilities of the U.S. Government

¹ The role of Canada as a foreign market for U.S. dollars was discussed in "Foreign Markets for Dollars, Sterling, and Other Currencies" (DM/61/20, July 20, 1961; and International Monetary Fund "Staff Papers," December 1961, pp. 313-352). A number of points in these papers have here been corrected or clarified; and the discussion has been brought up to date and made more comprehensive. This paper is an adjunct to "Recent Developments in Foreign Markets for Dollars and Other Currencies," which will appear in the November 1962 issue of "Staff Papers," vol. 9.

² Foreign currency assets and liabilities of the Canadian chartered banks are reported in Canadian dollars. The corresponding total was Can\$4 billion. Because of the variations in the exchange rate, the figures in Canadian dollars should be restated in U.S. dollars to measure flows of funds more accurately.

and U.S. residents. A sharp decline in the volume of "street" loans in New York in the second quarter of 1962 paralleled that of prices in the stock market. Although the share of the Canadian banks in outstanding "street" loans remained about the same, their amount decreased to \$547 million, and to 15 percent of total assets. Holdings of securities increased to 27 percent of the total.

Canadian statistics report the assets and liabilities of commercial (chartered) banks in foreign currencies, but provide no detail on the distribution by currency or by residence of owner. This is unfortunate in view of the large operations of Canadian banks in foreign currencies and their importance for better understanding of capital movements and the balance of payments. It is nevertheless estimated that in 1961 deposits held by residents of the United States increased by at least \$150 million, and perhaps by as much as \$250 million. These figures may be compared with the U.S. balance of payments deficit of \$2.4 billion reported by the Department of Commerce for 1961.

I. THE POSITION OF CANADIAN AGENCIES IN NEW YORK

The New York agencies of Canadian banks, like other agencies of foreign banks, cannot accept deposits in the United States. They can, however, obtain large volumes of deposits denominated in U.S. dollars for their Canadian offices.³ When an American, or a Canadian, or other foreign depositor, transfers his deposit denominated in U.S. dollars from a U.S. bank to a Canadian bank, the depositor is credited with a deposit denominated in U.S. dollars, and the head office acquires a deposit in a U.S. bank. If the head office subsequently (or simultaneously) advances these funds to the New York agency, the agency acquires the deposit in a U.S. bank, and shows a corresponding amount as due to the head office in Canada.

The head offices supervise the activities of agencies and branches with respect to obtaining deposits with close attention, and often transaction by transaction. They determine the amount of deposits sought, the rates of interest to be paid, and the investment of the deposited funds. In addition, the head offices may themselves obtain U.S. dollar deposits.

The assets represented by any of these deposits may be invested by the head offices, by the New York agencies, or by foreign branches in Europe. They may be invested in the United States, in Canada, or in other countries.

The New York agencies of foreign banks, Canadian and other, are not required to maintain reserves in the United States against funds advanced to them by their head offices. Reserves are required against deposits, and advances are legally not deposits.

Legislation adopted by New York in 1961 made it possible for foreign banks to have branches, which can accept deposits. Though a number of foreign banks have since established branches in New York, or converted their agencies to branches, the Canadian banks have not.⁴ The latter can attract such a large volume of dollar deposits,

³ These may be the head offices or designated Canadian branches. In what follows, these are summarily referred to as the "head offices."

⁴ One Canadian bank has, however, established a branch in California.

to some extent through their head offices, but principally through their New York agencies, that they see little advantage in converting their agencies to branches. Indeed, given this ability, there is some advantage in retaining agency status.

It is sometimes said that Canadian agencies have a competitive advantage in the New York money market by virtue of the fact that U.S. banks must maintain reserves against their deposits while Canadian agencies need not do so against advances by their head offices. A detailed examination of this proposition (app. II) suggests, however, that any such competitive advantage is not of major significance.

II. FOREIGN CURRENCY DEPOSITS OF CANADIAN BANKS

Deposits denominated in foreign currencies have for many years been increasing much more rapidly than those denominated in Canadian dollars. Thus, since 1956, the former increased by 165 percent, and the latter, by 25 percent. In the last year and a half, Canadian dollar deposits increased by 10 percent and foreign currency deposits by 35 percent.⁵

TABLE 1.—*Canadian dollar and foreign currency deposits of chartered banks, 1956-62*

End of year or quarter	Canadian dollar deposits (billions of Canadian dollars)	Foreign currency deposits ¹ (U.S. dollars)	
		Amount (billions)	Increase (millions)
1956.....	11.2	1.4	369
1957.....	11.4	1.9	429
1958.....	12.7	2.2	298
1959.....	12.3	2.5	336
1960.....	12.9	2.7	175
1961.....	14.2	3.3	681
1962 (1st quarter).....	13.9	3.6	254
1962 (2d quarter).....	14.2	3.7	77

¹ Figures in the Canadian dollars from app. I converted to U.S. dollars at the exchange rate prevailing at the end of the period.

Source: Canadian dollar deposits from Bank of Canada, Statistical Summary; foreign currency deposits from Supplement to the Canada Gazette.

The foreign currency deposits in the preceding table are stated in U.S. dollars, because their amount varies with additions and withdrawals in foreign currency (largely U.S. dollars). The difference between changes in deposits stated in each of the two currencies is substantial since the exchange rate of the Canadian dollar fluctuated between approximately US\$0.95 and US\$1.08 during the period. For example, in 1961, the increase in foreign currency deposits was \$835 million, measured in Canadian dollars, but, as restated in U.S. dollars, which better measure the inflow of funds, the increase was US\$681 million.

⁵ The increases in foreign currency deposits were calculated from the reported totals converted into U.S. dollars.

TABLE 2.—Growth of foreign currency deposits by banks and others, 1956–62

[In millions of U.S. dollars]

End of year or quarter	By banks		By others	
	Amount	Increase	Amount	Increase
1956.....	244	138	1,183	232
1957.....	274	30	1,581	398
1958.....	443	169	1,710	129
1959.....	556	113	1,933	223
1960.....	649	93	2,015	82
1961.....	674	25	2,671	656
1962 (1st quarter).....	744	70	2,855	184
1962 (2d quarter).....	603	-141	3,073	218

Source: Supplement to the Canada Gazette.

Foreign currency deposits in the past few years have shown a marked seasonal pattern in addition to an upward trend.⁵ In general, they reach a peak for window-dressing purposes at the end of October or November, corresponding to the close of the fiscal year of the major Canadian banks. A number of Canadian banks engage in window dressing to increase their size—their assets and their liabilities—rather than, as with German, Swiss, and some other European banks, to change the currency or the maturity composition of their assets. Thereafter, following the window-dressing dates, the chartered bank demand for deposits decreases somewhat. The supply of funds also decreases in response to the year-end adjustments of depositors for dividend transfers, tax payments, and the like. These seasonal increases and decreases are absorbed smoothly, without noticeable effect upon interest rates. Since 1956, more than four-fifths, and in the past 3 years, all of the increase in foreign currency deposits is attributable to customers other than banks.

Deposits denominated in foreign currencies (largely dollars) may be expected to increase year after year because of the growing number of foreign branches and agencies of the chartered banks, the expanding international financing of these banks, the growth of U.S. interests in Canada, and the large transactions of Canadian governments and business enterprises in U.S. capital markets. But the increases in recent years, and especially in 1961, are far greater than can be accounted for by such factors. They are explained largely by increasing deposits of U.S. dollars. The data in table 1 suggests that such foreign currency deposits, which might be called Euro-dollars or Can-dollars, have, by now, reached a total of \$1.5 to \$2 billion.

Five factors have been important in stimulating foreign currency operations:

(1) The chartered banks are willing to pay higher than prevailing interest rates in the New York market to obtain dollar funds, because they have found profitable outlets for such additional funds. In the early days of Euro-dollar operations, in 1957 or 1958, the interest differentials required to attract deposits from New York banks were substantial, of the order of 1 percent or more. As familiarity with these foreign dollar operations, and the role of Canadian banks in

⁵ Quarterly data for 1956–58 and monthly data beginning January 1959 are shown in app. I.

them, has increased, interest differentials have narrowed, and are currently perhaps one-fourth to one-half percent on 90-day deposits, and one-eighth to one-fourth percent on shorter dated deposits. The differentials vary with the need of the chartered banks for funds and the rates of interest that they can earn on these funds. These differentials attract U.S. dollar deposits from residents of many areas—the United States, Canada, Europe, and elsewhere.

(2) Even without the incentive of slightly higher interest rates, U.S. corporations, particularly those with Canadian branches or affiliates, have had an increased tax incentive beginning in 1961 to transfer funds to Canada.

At the end of 1960, the Canadian withholding tax on dividends sent out of the country was increased from 5 to 15 percent; the Dominion corporation income tax rate, however, remained about 50 percent⁷ (including social security tax) and the income tax for corporations in the Provinces of Ontario and Quebec was (after Dominion tax credit) about 52 percent. On the assumption that all of after-tax income was paid out in dividends, the effective tax rate would approach 59 percent.⁸ Since the maximum credit in the United States against U.S. income tax is 52 percent, this situation created unused tax credits for U.S. parents with Canadian subsidiaries or affiliates and gave them an incentive to generate additional income by placing funds in bonds, stocks, or bank deposits, and, for income tax purposes in the United States, consolidating such investment income with their Canadian subsidiaries' net profit and with income earned in the United States.

U.S. corporations thus had an incentive to disinvest in the United States and invest in Canada in order to use up the tax credit that would otherwise have been wasted.⁹ This incentive is a very strong one,¹⁰ and could lead to large capital outflows.¹¹ Fixed-term deposits in Canadian banks are probably the most attractive of all the Can-

⁷ Actual rates were 21 percent on the first \$35,000 of net income and 50 percent on the balance.

⁸ The tax rate usually used for illustrative purposes is 57½ percent (see the *New York Times*, Apr. 9, 1962; *Financial Post* (Montreal), May 19, 1962). But this maximum does not take into account provincial income taxes of 11 percent in Ontario and 12 percent in Quebec. The Dominion allowed a credit on this account of 9 percent and 10 percent, respectively, against its own income tax.

⁹ Although the discussion is usually in terms of using up a tax credit, the result can also be considered as an additional interest return.

¹⁰ Following is a recently published example involving a large U.S. corporation with a small Canadian subsidiary (but unfortunately not allowing for provincial income tax): U.S. profits from regular operations, \$9,879,500; interest on U.S. Treasury bills, \$10,350; Canadian profits, \$200,000, with all net income after taxes paid out as dividends. Shifting funds to Canada, so that interest on U.S. Treasury bills was reduced to \$5,570 and interest on Canadian time deposits became \$4,780, increased net of tax income on a consolidated basis by \$2,483 (*Financial Post* (Montreal), May 19, 1962).

Assuming 90-day Treasury bill yields at 2.7 percent, the capital funds equal \$484,000. Assuming interest on time deposits at 3½ percent, the funds shifted to Canada total \$136,000. The effective yield on this sum is \$4,780 of interest plus \$2,483 of additional net of tax income, equivalent to a rate of 5.3 percent.

The amount of necessary income (and capital funds) required to average down to 52 percent, assuming payment of an additional 2 percent by reason of Quebec or Ontario income tax, would increase these sums significantly.

¹¹ Dividend payments from Canada to the United States were \$350 million per year in 1958-60 (Dominion Bureau of Statistics, "The Canadian Balance of International Payments, 1960," p. 22). The example given in the preceding footnote suggests that the ratio between dividend payments to the United States and outflows of capital to use up tax credits was almost 2:1, excluding provincial tax in Ontario and Quebec. Thus, the maximum amount of funds that might be invested in Canada to take advantage of unused tax credits could range from \$750 million to \$1 billion or more. Part of this would have been transferred when the withholding tax on dividends was 5 percent prior to 1961; a large amount was probably transferred when the rate was raised to 15 percent beginning in 1961. In the future, there will be an incentive to transfer additional amounts as dividends receipts grow.

adian investments that can be used to generate additional income on a short-term basis. Interest on such deposits is exempt from withholding tax, whereas dividends and interest on Dominion and provincial issues dated later than December 1960, are subject to a withholding tax of 15 percent.¹²

(3) The chartered banks have wished to attract foreign currency deposits in order to improve their competitive position at home and abroad, to expand the scope of their operations, and to engage in year-end window dressing. The last sometimes requires paying rates of interest (considering available short-term outlets) that result in negligible profits or even interest losses.

(4) Part of the increase in U.S. dollar deposits reflects the attempt by chartered banks to pay higher yields to Canadian customers, and thus prevent these deposits from moving elsewhere. Like the banks in other countries, the chartered banks have working agreements or understandings with respect to the rate of interest paid on notice deposits. If the banks wish to pay higher rates on some Canadian dollar deposits to some customers, one way to do this is to denominate the account in U.S. dollars, to which the prevailing interest rates do not apply.¹³ This involves, although perhaps not universally, swapping Canadian dollars for U.S. dollars.

(5) Finally, some of the increases in U.S. dollar deposits in 1961 and 1962 represent speculation against Canadian dollar rather than the search for higher interest yields. It should be recalled that there was some official Canadian comment on exchange rate policy and on the level of the Canadian exchange rate in December 1960. Some holders of Canadian dollar deposits considered these comments to foreshadow changes in the exchange rate. A major shift in exchange rate policy was announced in the budget message in June 1961, including a declaration of intention to intervene in the exchange market in order to force the rate down. At the end of 1960, the exchange rate with the U.S. dollar was virtually at parity (Can\$0.996 per U.S. dollar). A premium gradually developed in the next 5 months, which was 1.3 percent at the beginning of June. Between June 1-20, the Canadian dollar fell to parity. Immediately following the budget

¹² The advantages of averaging down to 52 percent apply to all foreign income and not only to income earned in Canada. In 1960, the facilities for averaging down were increased by an amendment to the U.S. Internal Revenue Code. Under the old law, foreign tax credits were figured on a country-by-country basis; under the new one, credits can be calculated for all foreign countries combined, i.e., on a global basis. (United States Code Annotated (1961), title 26, sec. 904, incorporating Public Law 86-780 of Sept. 14, 1960. The purpose of the global amendment and objections to it were described in S. Rept. No. 1353, e.g., in United States Code (Congressional and Administrative News), 86th Cong., 2d sess. (1960), vol. 2, pp. 3,770 ff.).

A U.S. corporation that paid taxes anywhere equal to more than 52 percent on corporate profits plus dividends remitted (for example, in Germany) thus has an incentive to disinvest in the United States and to make additional money market investments somewhere (for example, in Canada or the United Kingdom). Even if made in short-term securities, such investment becomes essentially long term because of the U.S. tax code. Investment is encouraged by allowing foreign tax credits on a global rather than a country-by-country basis, and by allowing credits for all kinds of income combined rather than for different kinds of income separately.

¹³ The interest rate on savings deposits was 2½ percent in 1961; this was raised to 3 percent in mid-1962. Interest rates "on deposit receipts of \$100,000 and more for periods of up to 1 year, which previously had been set below yields on Treasury bills of comparable maturity, were raised in January 1961 and maintained through the year at levels somewhat above Treasury bill yields. The initial range of 3¼ to 4¼ percent was adjusted from time to time; by June the range was 2½ to 3½ percent and this was maintained virtually unchanged through the second half of the year." (Bank of Canada, annual report, 1961, pp. 35-36.) For the longer maturities, these rates were below the maximums for time deposits in the United States—and in any case Canadian banks paid higher rates on time deposits of U.S. dollars than the New York City banks.

presentation on June 20, 1961, the Canada dollar was at a discount of 3.5 percent, which gradually increased to more than 4 percent at the end of the year. By May 1962, the discount was 9 percent. At the end of June 1962, it was 8.2 percent.

In these circumstances, it would be unrealistic to suppose that there was not a protective movement by Canadians and others from Canadian dollars into U.S. dollars.¹⁴ This would account for part of the unusually large increases of foreign currency deposits in 1961, and particularly in the second quarter: Can\$510 million (US\$360 million).

III. INVESTMENT OF FOREIGN CURRENCY DEPOSITS

The U.S. dollars obtained in the form of dollar deposits are invested in four types of assets: deposits with other banks, securities (principally short-dated U.S. Government securities), "street" loans (day-to-day and short-term loans to brokers), and other loans. There was a marked change in the pattern of investments in 1961-62, as is evident from table 3.

TABLE 3.—Foreign currency assets of chartered banks, 1956-62¹

[In millions of dollars]

End of period	Total		Distribution of assets (U.S. dollars)			
	Canadian dollars	U.S. dollars	Deposits with other banks	Securities	"Street" loans	Other current loans
1956.....	1,411	1,470	329	391	359	391
1957.....	1,905	1,935	394	438	585	528
1958.....	2,118	2,197	358	512	636	691
1959.....	2,392	2,510	379	552	746	833
1960.....	2,717	2,727	534	559	817	817
1961:						
I.....	2,848	2,879	621	787	709	763
II.....	3,318	3,206	776	686	929	814
III.....	3,457	3,355	871	834	801	850
IV.....	3,592	3,448	965	644	809	1,025
1962:						
I.....	3,694	3,519	858	845	784	1,032
II.....	3,881	3,588	1,051	946	547	1,044

¹ Excluding gold and coin outside of Canada, about \$1,000,000, and Government and bank notes other than Canadian, which total less than \$45,000,000.

Source: Assets and liabilities of the chartered banks, as published in "Supplement to the Canada Gazette," converted to U.S. dollars. Detailed data are shown in app. I.

In 1961, foreign currency assets, measured in U.S. dollars, increased by US\$716 million, distributed as follows:

	Change (millions of U.S. dollars)		Distribution (in percent)	
	1961	January-June 1962	End 1961	June 1962
Deposits with other banks.....	431	86	28	29
Securities.....	85	302	19	27
"Street" loans.....	-8	-262	23	15
Other loans.....	208	19	30	29
Total.....	716	145	100	100

¹⁴ The distribution of deposits between Canadian and United States dollars may also have been affected by a shift in leads and lags.

Deposits placed with other banks increased by US\$431 million in 1961 and accounted for 28 percent of all foreign currency assets at the end of the year. They increased steadily during 1961, and totaled US\$965 million at the end of the year. They increased further by \$86 million in the succeeding 6 months to \$1,051 million at the end of June 1962. These deposits represented funds placed in Euro-dollar markets, largely in London, but also in Paris and other continental centers, and increased the already important role of Canadian banks as suppliers in Euro-dollar markets. It should be noted that these figures are not a measure of dollar funds invested in Europe by Canadian banks. They do not include funds swapped into sterling and loaned to local authorities and finance companies in the United Kingdom, nor do they include commercial loans made in U.S. dollars in Europe or elsewhere outside Canada and the United States. It is understood, however, that such amounts are small compared with deposits made with other banks.

During 1961, the interest rate on 90-day dollar deposits in London averaged approximately 3.50 percent; in December 1961, when the chartered banks had maximum funds placed on deposit with other banks, the rate was approximately 3.95 percent. Rates paid in continental centers were certainly no lower. Maximum rates paid by U.S. banks on time deposits were 2½ percent for 90 to 180 days, and 3 percent for more than 180 days. On the assumption that interest rates paid by Canadian banks were perhaps one-quarter to one-half percent higher than those paid by U.S. banks, these data suggest a gross interest margin of at least one-half percent, and a gross profit (on an average volume of US\$800 million placed with other banks) of at least \$4 million in 1961. Direct expenses involved in these transactions must necessarily have been minor.

TABLE 4.—“Street” Loans in New York, 1958–62

(In millions of U.S. dollars)

End of period	All New York City banks	Chartered banks ¹	Percent
1958.....	1,652	636	38
1959.....	1,740	746	43
1960.....	1,574	817	52
1961.....	1,956	809	41
1962: March.....	2,031	784	39
1962: June.....	2,450	547	38

¹ Principally through their New York agencies.² Estimated.

NOTE.—Data for chartered banks are Canadian dollars converted into U.S. dollars. Data for New York City banks are from the Federal Reserve Bulletin. The 2 columns, though not precisely comparable, can serve to suggest the situation.

Foreign currency (mostly U.S. dollar) loans made by the chartered banks are classified into those made to brokers (“street”) loans and all other. Canadian banks have a large share of the “street” loan market in New York. In the past few years, these loans have usually constituted about two-fifths of all the “street” loans in New York. The amount of their “street” loans has varied principally with total “street” credit by all banks but also with their share of this total. At their high point in September 1960, the “street” loans of chartered banks were more than \$1 billion, equivalent to about 60 percent

of the total. This proportion fell in the following months and reached 41 percent at the end of 1961. When the stock market declined sharply in the second quarter of 1962, "street" loans of all New York City banks declined by about 30 percent and the chartered banks held their share of the market. To get and keep this volume of business, the Canadian banks have, according to general indications, shaded the rates charged by U.S. banks by perhaps one-fourth percent.¹⁵ Under present conditions and investment alternatives, this volume probably represents their maximum penetration of the "street" loan market. It also reflects the unwillingness of brokers and dealers to switch additional parts of their lines of credit with U.S. banks to Canadian agencies, which might interfere with their customer relationships with the former.

Other current loans totaled US\$1 billion at the end of 1961 and continued at this level during the first 6 months of 1962. These loans, largely denominated in U.S. dollars, were made to customers in Canada, the United States, and elsewhere. The rates of interest charged on such loans are competitive with U.S. rates. Chartered banks are said to charge the U.S. prime rate (4½ percent), or one somewhat lower, to customers entitled to it in the United States. Even if their stated rates are the same as the prime rate, however, their effective rates would be lower since they do not require compensating balances.¹⁶

Holdings of foreign currency securities, which are overwhelmingly short-term U.S. securities, have for the most part constituted 20-25 percent of the total foreign currency assets. As pointed out in appendix II, these securities represent a liquidity reserve, and together with Euro-dollar deposits and money placed in the Federal funds market, are the most flexible assets of the chartered banks. As such, they absorb the major part of the short period or unpredicted changes in their assets or liabilities.

The investment policy of the chartered banks may thus be characterized as maximizing profits within three conditions: Maintaining foreign currency assets equal to foreign currency liabilities; operating with a minimum of risk, including placing dollar deposits with first-rate names; and investing a substantial portion of foreign currency assets in highly liquid form in order to avoid calls upon their Canadian currency assets. This policy results in keeping about half of their foreign currency assets in short-dated securities, day-to-day and call loans to brokers, and Federal funds.¹⁷ Rates of interest on these assets are relatively low. It is unlikely that, on the average, they could exceed the average rates of interest paid by the chartered banks on time deposits. Hence, about half of their U.S. dollar business is at best conducted without any gross interest margin, and without taking into account other direct expenses and applicable overhead. On the other hand, this portion of the business makes it

¹⁵ European banks generally charge even lower rates than Canadian ones. The differentials largely reflect the stability of these nominally short-term lines of credit. The loans of New York City banks, reflecting strong customer relationships, are the most stable and are rarely called; those of European banks are much more impersonal and may be called (or not renewed) if funds become tight.

¹⁶ Cf. D. J. Powell, "Banking In Canada," *the Bankers' Magazine* (London), June 1962, pp. 477, 478.

¹⁷ Canadian agencies are always sellers of Federal funds, i.e., deposit balances in the Federal Reserve banks. Since they are not themselves members of the Federal Reserve System, they hold Federal funds through correspondent banks or through domestic affiliates (if any) which are members. Cf. Board of Governors of Federal Reserve System, *The Federal Funds Market* (1958), especially ch. IV.

possible to engage in Euro-dollar operations with other banks and to make commercial loans, which do offer opportunities for significant profits.

IV. OWNERSHIP OF FOREIGN CURRENCY DEPOSITS

There is general agreement, though no statistical proof, that the large increases in recent years in foreign currency assets and deposits (identified in Canadian banking statistics as being in currencies other than Canadian) are due to operations in U.S. dollars. Unfortunately, there are no Canadian banking statistics on the distribution of these foreign currency assets and liabilities by currency, or by country or area of residence, or by any cross-classification of these criteria. Even if complete data were unavailable, it would be helpful if such statistics were collected and made available for confidential analyses.

The presence or the absence of such banking statistics for Canada and other countries made little difference when short-term capital movements were relatively small. They have now become extremely important for understanding capital flows, interest arbitrage, the balance of payments, and movements of reserves.

Banking statistics of this nature are presently compiled in considerable detail, though published in somewhat less detail, by the United States, Germany, and Italy. It is to be hoped that Canada and other industrial countries, notably the United Kingdom, France, and the Netherlands, will move in this direction as rapidly as possible.

V. DOLLAR OPERATIONS AND THE UNITED STATES BALANCE OF PAYMENTS

United States dollar deposits transferred by United States residents from United States banks to Canadian banks or other foreign banks are treated for balance-of-payments purposes as an item that contributes to the balance-of-payments deficit; i.e., as a short-term capital outflow above the line financed by an increase in United States liquid liabilities to foreigners shown below the line.¹⁸ As already noted, banking statistics are not available to analyze the changes in foreign currency deposits of Canadian banks by currency or by country of residence. Nevertheless, it appears that in 1961 deposits of United States residents in Canadian banks increased by at least \$150 million,

¹⁸ There is no effect upon the United States balance of payments when a United States resident transfers a dollar deposit from a London bank to a Canadian bank, nor when a non-United States resident transfers his deposit from any financial center (including New York) to any other financial center.

and perhaps by as much as \$250 million. These figures may be compared with the overall balance-of-payments deficit of \$2.4 billion reported by the Department of Commerce for 1961.

There has recently been much discussion of the different meanings that may be ascribed to the balance-of-payments deficit (or surplus).¹⁹ Three points that bear on this discussion appear from the present study of Canadian banking operations:

(1) These Canadian transactions do not directly affect the position of the United States dollar in foreign exchange markets. Deposits are made with Canadian banks in United States dollars; the assets purchased with (represented by) these deposits are denominated in United States dollars. Dollars used to acquire assets in other currencies (largely sterling) are minimal.

(2) Those who deposit foreign currencies (largely United States dollars) with Canadian banks acquire assets of a short-term character. These often have a term of 3 months, but very rarely as long as 1 year. Moreover, the time deposit arrangements of the Canadian chartered banks are flexible, and deposits can be withdrawn before the end of the agreed period with some adjustment of the agreed interest rate. The assets held by the Canadian banks as the counterpart of these deposit liabilities are of varying maturities, ranging from overnight money to commercial loans or participations for a period of 12 months or more. There is probably little difference between the average maturity of deposits and of their asset counterparts.

(3) The foreign currency assets of the Canadian banks are the mirror image of their foreign currency deposits. In view of the balanced relationship of foreign currency assets and liabilities, and of current banking practices, it is virtually impossible to visualize the chartered banks selling dollar assets for other currencies without a parallel adjustment in their deposit liabilities. The foreign currency assets of chartered banks keep in step with their foreign currency liabilities. United States dollar assets and liabilities increase and decrease together and, in both practice and theory, are closely tied to each other. Hence, there is some doubt whether it is appropriate to separate the two in an analysis of the United States balance of payments.

¹⁹ For example, by W. R. Gardner, "An Exchange Market Analysis of the U.S. Balance of Payments," Staff Papers, May 1961, pp. 195-211.

APPENDIX I

*Chartered banks of Canada: assets and liabilities in currencies other than Canadian, 1956 to date*¹

[In millions of Canadian dollars]

	Assets					Liabilities		
	Deposits with other banks	Securities	Day-to-day, call and short-term loans to brokers	Other current loans ²	Total	Deposits by other banks	Other deposits	Total
1956—March.....	285	295	264	343	1,187	146	1,002	1,148
June.....	297	339	299	341	1,276	177	1,058	1,235
September.....	307	396	369	342	1,414	189	1,134	1,323
December.....	316	375	345	375	1,411	234	1,135	1,369
1957—March.....	322	357	407	386	1,472	220	1,231	1,451
June.....	309	411	493	369	1,582	281	1,370	1,651
September.....	336	463	591	442	1,832	257	1,483	1,740
December.....	378	431	576	520	1,905	270	1,557	1,827
1958—March.....	348	449	569	581	1,947	290	1,605	1,895
June.....	366	496	711	615	2,188	443	1,711	2,154
September.....	348	605	627	602	2,182	372	1,787	2,159
December.....	345	494	613	666	2,118	427	1,649	2,076
1959—January.....	352	545	663	667	2,227	539	1,671	2,210
February.....	355	608	686	679	2,328	582	1,728	2,310
March.....	328	574	687	696	2,285	599	1,701	2,300
April.....	334	533	765	743	2,375	744	1,658	2,402
May.....	357	495	697	759	2,308	678	1,688	2,366
June.....	378	486	709	737	2,310	673	1,628	2,301
July.....	329	539	770	734	2,372	694	1,697	2,391
August.....	354	521	740	725	2,340	655	1,752	2,407
September.....	356	505	827	736	2,424	762	1,789	2,551
October.....	407	528	789	762	2,486	745	1,785	2,530
November.....	363	524	832	790	2,509	705	1,819	2,524
December.....	361	526	711	794	2,392	530	1,842	2,372
1960—January.....	396	570	801	760	2,527	682	1,844	2,526
February.....	363	589	846	756	2,554	666	1,886	2,552
March.....	463	597	869	800	2,729	768	1,972	2,740
April.....	415	575	938	827	2,755	817	1,937	2,754
May.....	466	632	980	836	2,914	857	2,049	2,906
June.....	482	756	907	826	2,971	843	2,124	2,967
July.....	499	772	969	806	3,046	857	2,179	3,036
August.....	491	780	965	803	3,039	843	2,193	3,025
September.....	501	717	1,005	823	3,046	813	2,212	3,052
October.....	654	724	959	827	3,164	899	2,153	3,001
November.....	542	782	820	823	2,967	781	2,120	2,901
December.....	532	557	814	814	2,717	647	2,007	2,654
1961—January.....	467	777	766	702	2,712	605	2,070	2,675
February.....	610	780	763	673	2,826	596	2,158	2,754
March.....	614	778	701	755	2,848	576	2,259	2,835
April.....	717	705	758	780	2,960	526	2,361	2,887
May.....	782	704	860	772	3,118	515	2,585	3,100
June.....	803	710	962	843	3,318	559	2,785	3,344
July.....	869	844	908	850	3,471	551	2,918	3,469
August.....	854	887	858	879	3,478	570	2,948	3,518
September.....	897	859	825	876	3,457	591	2,857	3,548
October.....	1,008	836	882	918	3,644	689	3,026	3,715
November.....	1,037	871	873	1,042	3,923	736	3,137	3,873
December.....	1,007	672	844	1,069	3,592	703	2,786	3,489
1962—January.....	864	1,108	822	1,019	3,813	821	3,022	3,843
February.....	878	1,164	780	1,037	3,859	783	3,110	3,893
March.....	901	887	823	1,083	3,694	781	2,997	3,778
April.....	894	907	891	1,109	3,831	738	3,122	3,860
May.....	1,041	1,087	793	1,131	4,052	737	3,331	4,068
June.....	1,137	1,023	592	1,129	3,881	652	3,224	3,976

¹ Excluding gold and coin outside of Canada, and Government and bank notes other than Canadian, which as of June 30, 1962, were respectively \$1,000,000 and \$41,000,000.

² Less provision for estimated loss.

Source: Statement of the Assets and Liabilities of the Chartered Banks of Canada, published monthly by the Department of Finance as a Supplement to the Canada Gazette.

APPENDIX II

RESERVE REQUIREMENTS APPLICABLE TO U.S. DOLLAR DEPOSITS

Canadian chartered banks maintain statutory cash reserves of 8 percent against their Canadian dollar deposit liabilities. These reserves are in the form of deposits at the Bank of Canada and holdings of Bank of Canada notes, and consequently do not earn any interest. Since 1954 the cash or statutory reserve ratio of the chartered banks has exceeded 8 percent by only fractional amounts. It was 8.1 percent at the end of 1961, and 8.2 percent in June 1962.¹ Furthermore, since 1956 the chartered banks have maintained by voluntary agreement liquid assets (statutory cash reserves, day-to-day loans, and Treasury bills) equal to at least 15 percent of deposits. The liquid asset ratio has on the average exceeded the 15 percent target by about 2 percentage points; it was 18.8 percent at the end of 1961, and 16 percent in June 1962.²

Canadian banks are also required to maintain "adequate reserves against liabilities in foreign currencies."³ The meaning of this requirement, however, has not been spelled out in regulations. Neither the word "adequate" nor the word "reserves" has been defined for this purpose. No specific assets have been defined as reserves. No requirement has been laid down that reserves should be held in Canadian dollars or in foreign currencies.

The net foreign asset (or liability) position of Canadian banks in all foreign currencies is always small (see app. III). Since 1958, for example, this has ranged from \$149 million of net assets to \$123 million of net liabilities; at the end of 1961, it was \$21 million of net foreign currency liabilities in relation to foreign currency assets of \$3.6 billion.⁴ The net foreign asset or liability position of Canadian banks is defined on the basis of currencies and not on that of residence. Foreign currency assets include claims on Canadian residents denominated in currencies other than Canadian; and foreign currency liabilities include deposits by Canadians denominated in currencies other than Canadian.

Of the total foreign currency assets of \$3.6 billion at the end of 1961, 19 percent consisted of securities, the overwhelming part of which was short-term U.S. Government obligations, and 24 percent of day-to-day, call, and short-term loans to brokers in New York ("street" loans). There is no published breakdown of these assets by maturity. Nevertheless, it is certain that, with respect to their foreign currency deposits, the Canadian banks exceeded by a wide margin the 15 percent liquid asset ratio applicable to their deposit liabilities denominated in Canadian dollars. It should be noted that standards of statutory cash reserves and liquid assets apply equally to all deposits in Canadian dollars: demand, savings, and notice.

The New York City banks, on the other hand, are subject to a reserve requirement of 16½ percent against demand deposits and 4 percent

¹ The 8-percent reserve requirement was set in 1954. Prior to that date it was 10 percent.

² Canada Year Book, 1960, pp. 1127-1140, and Bank of Canada, Statistical Summary, June 1962, p. 336.

³ Bank Act of 1954, ch. 48, sec. 71.

⁴ There is no breakdown of these totals by currency. They include sums denominated in United States dollars, British West India, and Latin American currencies, sterling, and other currencies.

against time deposits.⁵ These requirements must be satisfied by deposits with the Federal Reserve System and by vault cash. Neither earn income.

The competitive advantage, if any, derived from differences in reserve requirements of Canadian chartered banks over New York City banks, thus depends upon two elements: the classification of deposits, and the foreign asset investment pattern of Canadian banks. A time deposit may be shifted from a U.S. bank to a Canadian one; or a demand deposit in the former may become a notice deposit in the latter—but never the reverse. The additional income-earning possibilities may thus be greater for Canadian banks (assuming no reserves in non-income-earning assets) over U.S. banks (with a 5 percent reserve requirement against time deposits) by as little as the income on 5 percent of U.S. dollar deposits. Against this differential must be considered the highly liquid asset position maintained by the chartered banks against these volatile deposits, a position which tends to reduce average earnings.

It is, therefore, difficult to conclude that Canadian agencies operating with U.S. dollar deposits have any significant competitive advantage by reason of differences in reserve requirements between the United States and Canada. The effect of these differences tend to be offset by differences in the foreign asset pattern of Canadian banks dictated by the inherently less stable character of their foreign, especially U.S. dollar, deposits compared with their domestic ones.

APPENDIX III

Net foreign assets of chartered banks, 1958-62

[In millions of Canadian dollars]

End of month	1958	1959	1960	1961	1962
January.....	87	44	-1	61	-55
February.....	108	47	6	54	-40
March.....	86	25	1	55	-52
April.....	71	-11	6	39	-54
May.....	78	-40	3	-6	-46
June.....	50	59	24	-40	-102
July.....	6	-14	15	-33	-----
August.....	76	-60	19	-42	-----
September.....	57	-123	24	-116	-----
October.....	149	-47	110	-100	-----
November.....	58	-17	103	-7	-----
December.....	88	21	71	21	-----

Source: Bank of Canada, Statistical Summary, supplement 1961 and issue June 1962.

⁵ In 1958, these reserve requirements were 20 percent and 5 percent, respectively, and could be satisfied only with deposits with the Federal Reserve banks.

87th Congress }
2d Session }

JOINT COMMITTEE PRINT

FACTORS AFFECTING THE UNITED STATES
BALANCE OF PAYMENTS

MATERIALS PREPARED FOR THE
SUBCOMMITTEE ON INTERNATIONAL
EXCHANGE AND PAYMENTS
OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

Part 7
SPECIAL PROBLEMS OF A KEY CURRENCY



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LETTERS OF TRANSMITTAL

DECEMBER 7, 1962.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress is the last in a series of papers prepared by outside consultants for the consideration of our Subcommittee on International Exchange and Payments in connection with its study of "Factors Affecting the United States Balance of Payments."

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

DECEMBER 6, 1962.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith is the last of the study papers in the series assembled by the Subcommittee on International Exchange and Payments on the general subject of "Factors Affecting the United States Balance of Payments."

The papers have been prepared by experts from the universities, research and international organizations, and are a part of the subcommittee's broadly based study of the need and means for reducing the deficit in the U.S. balance of payments, as well as appraising the opportunities for international trade and payments cooperation.

The materials are presented in advance of the subcommittee's hearings in accordance with the Joint Economic Committee practice of providing members of the committee and the participating panelists an opportunity to examine thoroughly the analyses in preparation for discussions at public hearings.

Prof. Don Humphrey of the Fletcher School of Law and Diplomacy, Tufts University, has been acting as a consultant to the subcommittee and has had major staff responsibility in arranging for these expert study papers and in planning the subcommittee's study.

Sincerely,

HENRY S. REUSS,
*Chairman, Subcommittee on International Exchange and
Payments.*

SPECIAL PROBLEMS OF A KEY CURRENCY IN
BALANCE-OF-PAYMENTS DEFICIT

By

GEORGE N. HALM

FLETCHER SCHOOL OF LAW AND DIPLOMACY
TUFTS UNIVERSITY

SPECIAL PROBLEMS OF A KEY CURRENCY IN BALANCE-OF-PAYMENTS DEFICIT

The present paper deals with the dollar as key currency in balance of payments deficit. It tries to separate the real problem from exaggerated fears and the feasible solutions from impracticable proposals.

I. THE PROBLEM

GOLD EXCHANGE STANDARD AND KEY CURRENCY SYSTEM

The Genoa Conference suggested in 1922 the gold exchange standard as a means of economizing gold. The countries on the gold exchange standard use both gold and gold convertible currencies as international liquidity reserve and as backing for their domestic monetary circulation. Even today many countries can be said to be on the gold exchange standard, because they hold their reserves in both gold and dollars.¹ But it would be better to speak in this case of a key currency system in which the dollar is the key currency and the United States is the "leader"² of the system. The key currency country sees to it that the supply of international liquidity reserves is adequate. Official foreign key currency balances are convertible into gold.

The key currency system is a special case of the gold exchange standard, but the reverse is not true; the gold exchange standard of the interwar years did not have the benefit of the leadership of the gold standard countries. On the contrary, it was conceived as an automatic mechanism and failed owing to the nearly complete absence of international cooperation. It would be dangerously wrong, therefore, to identify the two systems and to conclude that the present key currency system is exposed to all the perils which caused the breakdown of the gold exchange standard in the 1930's.

The gold exchange standard failed between the wars, because the "leading" countries refused to lead: that is, to accept responsibility for the functioning of the international payments system. The system started badly with wrongly chosen fixed exchange rates and the gold standard countries did what they could to make things worse. Not intentionally, to be sure, but with supreme indifference as to the impact of their policies on the rest of the world. To take the United States as an example (in contrast to her leading role after World War II); when the international payments disequilibrium was already excessive, owing to the U.S. depression and the dramatic fall in U.S. imports, foreign short-term loans were called back: and the attempt of the debtor countries to meet their obligations through a trade surplus was

¹ For reasons of simplification we shall assume throughout that the dollar is the only currency used for reserve purposes.

² Characteristically, the German for key currency is not Schlüsselwährung but Leitwährung or leading currency. The term key currency was introduced by John H. Williams in his articles, "The Adequacy of Existing Currency Mechanisms Under Varying Circumstances." *The American Economic Review*, March 1937, Supplement, and "Currency Stabilization: The Keynes and White Plans." *Foreign Affairs*, July 1943.

answered by raising U.S. tariffs to the highest level in history and by a devaluation of the dollar.³

Does then the breakdown of the gold exchange standard in the great depression and the emergence of competitive exchange depreciation and exchange control indicate that our present key currency system is equally endangered and bound to collapse? Fortunately, there is no such danger for the following reasons:

(1) The international payments system of the free world is no longer envisaged as an automatic mechanism which absolves all members of conscious cooperation. Since Bretton Woods the keynote is now international monetary cooperation. This cooperation is not yet perfected, but the trend since Bretton Woods has been encouraging. "Measures destructive of national or international prosperity"⁴ are, on the whole, being avoided, and the relics of such measures of the past are being patiently removed.

(2) The work which the International Monetary Fund was not powerful enough to undertake was undertaken by the United States, which thereby became the dominant key currency country and the leader in the free world's return to convertibility.

(3) A revolutionary breakthrough in economic theory and policy has enabled the market economies of the free world to maintain high levels of economic activity. This, in turn, prevented the "export" of depressions with its damaging effects on international trade and world income.

(4) Whenever domestic economic policies of the different market economies diverge and tensions in the international payments system develop, exchange rates can be adjusted. Ideally the exchange rates are to be kept as close as possible to the so-called equilibrium rates.⁵ Wrong rates, and competitive depreciations in particular, are to be avoided.

(5) It is unlikely that capital movements will play the same disastrous role as during the interwar years when reparation payments, war debts, and private lending were all mixed up in one frightful muddle, without even the precaution of a clear distinction between short- and long-term obligations. That in the most critical circumstances loans were withdrawn rather than extended has been mentioned. In this connection it can be pointed out that most foreign exchange reserves are now owned by the different countries instead of being borrowed and subject to withdrawal at short notice.⁶

Naturally, there is still much room for improvement. The integration of economic policies of the members of the international payments system is not as close as it ought to be if convertibility at stable rates of exchange is to be achieved; and the arrangement, as it now exists, puts too heavy a burden on the key country without extending to it the benefit of exchange rate adjustments. Nevertheless, the system, as it is, constitutes a great improvement over the gold exchange

³ See Hal B. Lary and associates, "The United States in the World Economy." U.S. Department of Commerce, Washington, 1943.

⁴ International Monetary Fund, "Articles of Agreement," Washington, 1944, art. 1.

⁵ Nurkse defines the equilibrium rate of exchange as "the rate which, over a certain period of time, maintains the balance of payments in equilibrium without any net change in the international currency reserve" and "without a degree of unemployment greater than in the outside world." See Ragnar Nurkse, "International Currency Experience," League of Nations, 1944, pp. 124 and 126, and "Conditions of International Monetary Equilibrium," Essays in International Finance, No. 4, Princeton University Press, 1945, p. 6.

⁶ See International Monetary Fund, 16th Annual Report, Sept. 18, 1961.

standard of the 1920's. To identify it with this system gives a wrong slant to the present reappraisal of the international payments situation, and adds a note of alarm and urgency which is uncalled for and undesirable if not downright dangerous. The system which we have today is not the old gold exchange standard and is in no danger of collapse as long as the participating countries are willing to follow domestic policies which do not put the international payments mechanism under an unbearable strain—in which case no international payments system (deserving that name) could work.

But is not the key currency system exposed to new dangers just because it puts too heavy a burden on the key currency country? Does it not avoid the dangers of the gold exchange standard of the past only to have to face even worse dangers in the future?

A seemingly powerful case against the key currency system is based on the following facts, assertions, and conclusions: (a) The need for international liquidity reserves grows proportionately with the volume of international trade; (b) owing to inflationary conditions at fixed gold parities, gold production grows slowly and can supply only a small part of the needed growth of reserves; accordingly, an ever increasing amount of international liquidity reserves will have to be held in the form of gold convertible key currency balances; (c) the net reserve position of the key currency country must deteriorate, because key currency balances grow much faster than the key country's gold reserves; (d) at some point in the future the confidence in the key currency must break down; and (e) together with the confidence in the key currency the whole monetary superstructure of the world must collapse.⁷

This interesting argument is false for two reasons: It is wrong to assume that the demand for international reserves must grow roughly in correspondence with the volume of international trade and it is erroneous to conclude that confidence in the key currency depends mainly on the key country's net reserve position.

While there is some connection between the volume of international trade and the need for international reserves, the two do not have to expand in the same proportion. Most international transactions are cleared in the foreign exchange markets. Theoretically, it would be possible to conduct international transactions with practically no reserves, if the domestic economic policies of the trading countries were well integrated and if the rates of exchange of their respective currencies were permitted to fluctuate. In reality, of course, national economic policies are not perfectly coordinated and exchange rates are not free to adjust. This means that balance of payments deficits and surpluses will develop which must be financed. But we have it in our power to reduce the need for foreign reserves through international integration or through the introduction of a system of flexible exchange rates. Thus there is no reason for making alarmist predictions about the divergence between gold production and the need for international reserves and, accordingly, about the future net reserve position of the United States as the key currency country.

To assert that confidence in the key currency must deteriorate together with the net reserve position and eventually collapse is like

⁷ See Robert Triffin, "Gold and the Dollar Crisis" (New Haven: Yale University Press, 1960), p. 8-9.

arguing that domestic money will be repudiated when the Government permits the monetary superstructure on a given amount of gold to continuously expand, as it has in the past.⁸ There is no fixed relationship between backing percentages and confidence, just as there is, under normal conditions, no reason to assume that the impossible will be attempted; namely, the simultaneous conversion of all claims into gold. Furthermore, it is possible and advisable to abolish all gold-backing requirements against the domestic monetary circulation, thereby freeing gold reserves for the bridging of payments deficits which are too large to be absorbed by the member countries as key currency balances.

Should we come to the conclusion that it would be unfair to make one country supply all the reserve balances which are needed in excess of gold, some arrangements can be found, as we shall see, long before the net reserve position of the key currency country reaches a dangerous point.

THE KEY CURRENCY PROBLEM

The key currency is used by other countries as (*a*) a unit of account in international transactions, (*b*) a means to balance international payments, and (*c*) a reserve of international liquidity.

Choice of the dollar as the international unit of account of the free world was the result of the dominant position of the United States after World War II and of the reluctance on the part of the future members of the International Monetary Fund to use an artificial unit such as *bancor* or *unitas*.⁹ Even the regional European Payments Union used the dollar as its accounting unit (1950-58).

But it must be noted that article IV of the International Monetary Fund Agreement declared that "the par value of the currency of each member shall be expressed in gold as a common denominator or in terms of the U.S. dollar of the weight and fineness in effect on July 1, 1944."¹⁰ That statement implies that the gold value of the dollar can be changed in certain circumstances. We shall see, however, that the main problem of the United States as a key currency country in deficit consists in the fact that she cannot devalue her currency vis-à-vis other currencies when devaluation would be desirable. The currency of any other member of the Fund can be newly "pegged" with the Fund's approval. Not so the dollar, the accounting unit of the system. Assume that the United States suffers from inflation worse than the average inflation in the rest of the free world. She will then develop a balance-of-payments deficit. This deficit can be temporarily covered as long as the rest of the world is willing to hold its claims in the form of increasing dollar balances or as long as the key country (the United States) can pay out gold. Within this period of grace the key country would have to improve its balance-of-payments position through domestic measures. The two alternatives open to the "member" countries, devaluation and mild forms of exchange control, would mean the breakdown of the system if used by the key country. Devaluation of the accounting unit of the system could lead to wholesale conversion of key currency balances into gold, a precipitous de-

⁸ This did not even happen in Germany in the early 1930's in spite of the inflation experience of the German people.

⁹ *Bancor* was the unit proposed by the British or Keynes plan, *unitas* the unit of the American or White plan in 1943.

¹⁰ International Monetary Fund, "Articles of Agreement," Washington, 1944.

cline of international reserves, worldwide contraction, and the end of convertibility.

As a means for the balancing of international payments, the key currency is used by member countries like gold when a deficit in the balance of payments cannot be covered in any other way; for example, through a short-term loan.

The demand for key currency balances depends on the total demand for reserves minus the available monetary gold. The total demand rests on the size and frequency of international payments deficits. The deficits, in turn, are a function of the integration (or the lack of integration) of domestic economic policies of the member countries. With fixed rates of exchange, free convertibility, and no effort toward integration, even enormous reserves would prove insufficient in the long run. With flexible exchange rates and close monetary cooperation small reserves may be adequate.

Since the use of the dollar as unit of account and as international reserve makes it impossible for the United States to devalue and enforces a domestic policy which maintains a purchasing power of the dollar equivalent to the fixed parity (lest the world lose confidence in the key currency), the U.S. national policies are narrowly confined. This is the essence of the key currency problem. We have become conscious of this problem only since the so-called dollar shortage has been overcome.

Let us see whether the problem could have been avoided altogether by a more courageous attempt toward international cooperation in 1944; for example, through the adoption of Lord Keynes' International Clearing Union plan.¹¹ The members of the Clearing Union would have financed international payments deficits by drawing bancor checks on the union up to a rather generous "line of credit."¹² The surplus countries would have promised to accept payment in the form of credits with the Union to the extent of their surplus.

This arrangement could not be accepted by the United States in 1943 for the following reasons: (a) The Clearing Union would not have had enough power to make its members coordinate their domestic economic policies and thereby reduce imbalances, and (b) the aggregate of quotas of all potential deficit countries was formidable. Finding herself in a very one-sided surplus position, the United States was not prepared to extend credit automatically in the order of magnitude of tens of billions of dollars. In its basic structure¹³ the Clearing Union would have provided an ideal international payments arrangement for a well-balanced world. As the world was in 1943, however, the United States could not be expected to submit her domestic monetary and fiscal policies to whatever might happen as a result of the monetary policies of other countries, whose demand for aid was enormous because of the war and whose demand for foreign exchange could easily have become excessive in consequence of domestic inflation.

No country can be asked to shoulder a potentially enormous financial burden, the extent of which is unknown. We must understand

¹¹ Proposals for an International Clearing Union (London: H. M. Stationery Office, Cmd. 6437), April 1943.

¹² Lord Keynes proposed an aggregate of quotas of about \$33 billion, including the U.S. quota of \$3 billion. If we assume a deficit position for the rest of the world, we see that enormous bancor credits might have piled up in favor of the United States.

¹³ But minus certain weaknesses, particularly the fact that it was to be based on the principle of the least possible interference with internal national policies.

that, at full employment, such a surplus country would either have to inflate as much as or more than the others do or would have to finance by domestic taxation the help extended to other countries.

The impossibility of accepting the Keynes plan led to the International Monetary Fund as a compromise solution. The main point of difference between the Fund and the Union was that prospective surplus members of the Fund did not promise to extend credit to the amount of the aggregate of quotas of the deficit countries, but only to the extent of their own contributions to the Fund. Since the sum of quotas of the potential deficit countries was at the time larger than the sum of the quotas of the potential surplus countries, the Fund agreement was marred from the beginning by an insufficiency of the Fund's resources and by the necessity of bolstering the Fund's asymmetric structure through repurchase and scarce currency provisions (the latter even implying exchange control measures).¹⁴ At the same time, the International Monetary Fund did not have the power to integrate national economic policies. What proved acceptable in Bretton Woods in July 1944 was an international payments system which was not strong enough for the rigors of the post-World War II period.

Meanwhile, as a matter of practical necessity, the United States had to shoulder a burden comparable in size to the load which she had refused to carry within the formalized and internationalized Clearing Union. Willing to aid the free world in its return to a multilateral payments system, the United States provided financial aid not only for reconstruction and development but also for the building up of adequate reserves of international liquidity. Thus, she became the key currency country.

The members of a key currency system can acquire key currency balances by two methods—either they can borrow these reserves from the key currency country or they can develop an international payments surplus to earn key currency balances. When they use a payments surplus to acquire reserves, they extend credit to the key currency country which can enjoy imports for which it does not have to pay as yet in terms of exports. But it would be wrong to see in this "carrying coals to Newcastle" a grave shortcoming of the system.¹⁵ If the key currency is used as international reserve, and if the system is to rest on a more normal basis than a permanent one-sided handout by the key country, the "members" must invest part of their foreign exchange earnings in key currency balances, just as they would otherwise have to hold gold reserves.¹⁶

A key currency system can work only if the key country is willing to lend as long as it is in balance of payments surplus, or if it develops a deficit in its balance of trade which helps "members" to finance sufficient reserve holdings via export surpluses. In other words, the key country can get sufficient amounts of its currency into the hands of "member" countries for reserve purposes either by buying the members' I O U's or their commodities.

Thus we come to the result that it is a perfectly natural state for a key currency country to be in balance of payments deficit. If the

¹⁴ See arts. V, 7 and VII.

¹⁵ Triffin, *op. cit.*, p. 68.

¹⁶ "It is rational for a country to accumulate reserves of those currencies which it is most likely to need in settlement of international payments deficits; i.e., obviously those of the main trading countries." J. Herbert Furth, *Zeitschrift für Nationalökonomie*, winter, 1961.

key currency country is not willing to provide sufficient international reserves in this fashion, it will create a "dollar shortage." On the other hand, the key currency must not be in excessive supply in consequence of a serious and protracted international payments deficit of the key country, because then the "member" countries might doubt the ability of the key country to maintain both the internal and external value of its currency unit. The key currency, like Caesar's wife, must be above suspicion.

The dramatic change in the international payments situation which has characterized the late 1950's and the early 1960's lies not in the fact of a balance of payments deficit of the United States, but in a balance of payments deficit which provided more dollars for the rest of the world than the free world cared to hold in the form of dollars. The visible result was a gold outflow from the United States.

Against the background of the postwar dollar shortage, this "reversal" of the U.S. balance of payments situation has been much commented upon and has given rise to a broad reappraisal of the world's balance of payments situation. What should have been clear all along now because evident: that the dollar shortage was not a permanent affair, but a temporary postwar phenomenon. The dollar shortage was finally overcome through the increased competitiveness of the rest of the free world, which result had been the very aim of postwar reconstruction and U.S. aid. The crossing of the line between dollar shortage and dollar surplus, therefore, should, first of all, be interpreted as a return to normal conditions, and not exaggerated as a dollar "crisis" in the same irresponsible way in which the dollar shortage was sometimes misinterpreted.

However, the time has come for a new look at the international payments situation and the role which the United States, as the predominant key currency country, is to play in it.

Two problems have to be faced. We must become aware of the fact that a key currency country is in a more sensitive payments position than other countries simply because it has taken it upon itself to convert, on demand, foreign exchange reserves of the "member" countries into gold or commodities. While this obligation may not be serious under normal conditions and with the cooperation of all "members," it could become dangerous for both the key country and the "members" if a general desire to convert the key currency into gold were to lead to a sudden collapse of international liquidity.

The second problem concerns the restriction which the key currency country suffers as a result of the service it renders to the international community: it may not, as the "members" are permitted to, devalue its currency and it cannot always follow the domestic economic policy which would be best if its responsibilities as key currency country could be disregarded.

We assume that the key currency country, just as all the "members," wants to achieve three aims of economic policy: Maintenance of high levels of employment and rates of growth, stable prices, and currency convertibility. But in the attempt to maintain a high employment level, a country may easily expose itself to inflationary pressures, and both high levels of economic activity and high prices may, through rising imports and falling exports, lead to balance-of-payments difficulties.

A deficit in the balance of payments can be corrected with relative ease if a country is permitted to devalue. The International Monetary Fund, therefore, permits exchange rate adjustments.¹⁷ Let us assume, however, that the country in question is a key currency country and is de facto unable to lower the external value of its currency unit. To correct a balance-of-payments deficit, the key country will have to raise its rates of interest and thereby depress its economic activity. It could avoid this policy, and maintain convertibility at fixed rates of exchange, only under the condition that, as leader of the payments system, it could induce the "members" to bring about inflation and expansion of economic activity before its own gold reserves are used up. If the "members" do not inflate and the deficit is not corrected, the key currency remains overvalued. It must be noted that the system, while resting on the willingness of the key country to shoulder certain (often inconvenient) responsibilities, has no automatic symmetrical arrangement by which the "members" would be forced to shoulder their share of the adjustment burden.

If the key country maintains a high employment level and a balance-of-payments surplus, it will be its duty to compensate for its surplus through loans to deficit countries. As responsible leader of the system it must see that the "members" have adequate liquidity reserves and are not forced into contractionist policies, exchange control, or competitive exchange depreciation.¹⁸

Until recently it was generally assumed that a recession in a key currency country would have a very detrimental effect on the rest of the world. Declining domestic activity would lead to reduced imports while exports might continue as before, possibly even stimulated through lower prices. It would then be the duty of the key currency country not only to make its currency available through loans but also to do everything in its power to revive its own economy.¹⁹

Fortunately, there is no conflict between domestic and foreign economic policy in this case. The balance-of-payments surplus permits the lowering of interest rates and the application of fiscal measures (deficit spending) without consideration of balance-of-payments effects. Increasing economic activity in the key country would actually foster international payments equilibrium. Exports of "member" countries would increase and the lowering of interest rates in the key currency country would induce equilibrating capital movements.

Success with modern employment policies has finally dispelled the inordinate fear with which deficit countries viewed the possibility or probability of a recession in the key currency country. This fear had been the result of their traumatic experiences during the great depression.²⁰

¹⁷ Art. IV. This arrangement has been described as an adjustable peg system. The par values of the member countries are at all times fixed but can be adjusted up or down in relation to gold when a "fundamental disequilibrium" can be shown to exist. Permission of the International Monetary Fund is required when a change in par value exceeds 10 percent of the initial value, including previous changes.

¹⁸ In contradistinction to her behavior during the interwar years, the United States has shouldered this responsibility successfully after World War II.

¹⁹ See "National and International Measures for Full Employment," United Nations, New York, 1949, a report very characteristic for the attitude of the 1940's.

²⁰ Some economists are reluctant to give up this convenient indictment of the capitalist United States and argue that capitalist countries will still be exposed to major depressions once war expenditures have become unnecessary. See Shigeto Tsuru, editor, "Has Capitalism Changed?" (Tokyo: Iwanami Shoten, publishers, 1961).

Until recently it was considered obvious that a recession would always be accompanied by a balance-of-payments surplus in the recession country. However, indisputable facts have now shown that recession can coincide with a balance-of-payments deficit. This situation, when it occurs in a key currency country, creates very difficult problems. The domestic situation demands such policies of expansion as the lowering of interest rates and deficit spending, while the international situation demands policies which favor exports and capital inflow. These two sets of policies are opposites and make a satisfactory compromise very difficult.

The Bretton Woods recipe for this situation would be devaluation. But the Bretton Woods experts did not know that for a rather lengthy period the international payments system would have to rest on reserves made available by the United States as key country and not by the International Monetary Fund and that this fact would preclude, for the key country, exchange rate adjustments.

The two outstanding facts concerning the U.S. economy in the late 1950's were (a) that production at less than full capacity was connected with a balance-of-payments deficit and (b) that it was connected with a continuing price rise. The relation between these two facts is obvious. Rising prices tended to reduce exports and to invite imports, particularly when we consider that these developments came at the very time when the European countries and Japan had regained competitiveness.

The U.S. economy, absolved for years from any concern about her balance-of-payments position, had become too easy going, as it were, with respect to her price, wage, and monetary policies.²¹ Creeping inflation had been permitted.²² A more normal international payments position after World War II might have disciplined U.S. domestic economic policies. As it was, the United States had to face the rough climate of increased foreign competition rather suddenly, with a domestic economy which was no longer accustomed to the rigors of intense competition.

We could argue, of course, that, from now on, the U.S. domestic policies (and this includes the policies of her business and labor leaders) will simply have to be more careful and conservative. The position of the United States as a key currency country in deficit could have the "healthy" effect of providing a steel framework, imposed from the outside, within which domestic problems would have to be handled. The supply of money, for instance, would no longer be an accommodating supply²³ made necessary by wage push and administrative pricing together with the necessity of avoiding mass unemployment. The key country would have to follow the old-fashioned monetary aim of keeping wages and prices in line with those of competing countries.

But in so arguing we would return to the assumption that price adjustments in a modern market economy are more resilient than

²¹ Jacques Rueff has a simple explanation for what is wrong in a key currency system. Since the key countries must have a chronic deficit to supply the rest of the world with reserves, they do not adopt the corrective domestic policies which they would have to use if they had to pay off their deficits. Jacques Rueff, "The West Is Risking a Credit Collapse," *Fortune*, New York, July 1961.

²² See Gottfried Haberler, "Creeping Inflation," in *Ekonomi Politik Samhälle*, Stockholm, 1959.

²³ See Fritz Machlup, "Another View of Cost-Push and Demand-Pull Inflation," *The Review of Economics and Statistics*, May 1960.

they actually are. And what is more, we would have to be strict and conservative for the key currency country alone, while adhering to the principle of the adjustable peg for the rest of the free world. The international consequences of domestic policies in other countries would have to be absorbed somehow by the domestic policy of the key country. Yet the key country would be in no position to "lead" the member countries in the sense that the latter would be forced to adjust their policies to that of the key country.

Thus we find the key country, the United States, in a difficult position. Its currency unit, the dollar, has become the international unit of account; huge amounts of dollar balances are held by many countries as international liquidity reserve; and gold convertibility of these balances makes the maintenance of a fixed dollar parity—already implied in the dollar's role as unit of account—imperative. Thus the United States is deprived of the relief which the Bretton Woods system offers to countries in balance-of-payments deficit: devaluation. The U.S. deficit is, in part at least, the result of creeping inflation. To correct this situation, however, might be contrary to the domestic aim of maintaining high employment levels and growth rates. Thus neither devaluation nor deflation can be employed.

If it is correct that the facts of modern economic life do not permit the return to a strict gold mechanism, it seems unwise and even unjust to request that one country alone accept the rigors of the old system, particularly since this country faces a much greater liquidity problem as key currency country and also because the new system has lost the best feature of the old: the automatic integration of national economic policies.

Without being unduly alarmist, we can make a good case for international action which will relieve the key currency country from a burden which, with the return of more normal conditions, has become increasingly irksome while there is now also less reason why it should be borne by one country alone.

II. PROPOSED SOLUTIONS

A GENERAL INCREASE OF THE PRICE OF GOLD

One way of giving relief to the key currency country would be a policy which would succeed in raising substantially the gold component of international liquidity reserves. Larger gold reserves could be provided by the simple device of raising, generally and proportionately, the price of gold in all countries. The general upward change (e.g., from \$35 to \$70 per ounce) would revalue the existing gold stock and stimulate gold production. Assuming that the key currency country still holds huge gold reserves, whose value would be magnified, it could then rid itself of its obligations by paying in gold. But it is easy to show that this plan would not solve the key currency problem.

The proposal has been supported by economists whose aims are poles apart. Some want to revalue gold as the first step in a return to the old-fashioned gold mechanism while others see in this revaluation a way toward increased international liquidity and greater freedom for national economic policies.

For the conservative group the return to the strict integration of national economic policies via gold movements would mean the giving up of the gold exchange standard "with its inherent double credit structure now based on U.S. gold reserves."²⁴ Obviously, the key currency system is here considered as dangerously inflationary because on gold rests, first, a superstructure of dollars and on each dollar held abroad, second, a superstructure of foreign money. The key country, we are told, lacks financial discipline just because it is practically forced into a permanent deficit position and its financial irresponsibility can bring the whole international payments system to fall.

It is proposed, therefore, that all countries submit once more to the discipline of the semiautomatic gold mechanism, in which balance of payments deficits are settled in gold and the participating countries undertake "not to accumulate any new official holdings of foreign exchange (to avoid a future relapse into the gold exchange standard)."²⁵ A prerequisite of this plan is a substantial increase in the price of gold, but the authors say nothing about the possible inflationary implications of this step and the measures by which we could guard ourselves against these dangers.

If this conservative proposal were feasible, it would have the advantage of alleviating the burden now resting on the key currency country by reestablishing a tight system of integration of monetary policies and by imposing the same discipline on all members of the system. Unfortunately, these proposals are no longer realistic. Or, to put it differently, these proposals would deserve attention only if they contained suggestions as to how domestic economic problems can be solved through mere pressure exerted by the central bank and, in particular, how the problem of sticky wages and prices could be met.

That the return to old-fashioned policies would meet with much opposition is indicated by those who want to revalue gold just because they want to create the possibility for much greater expansion in the national economies. Increased international liquidity is supposed to lead to lower rates of interest and higher rates of economic growth generally.²⁶ It seems that this proposal wants to permit the United States to join in a general expansion while the conservatives would make all other countries join the United States in the limitation which her key currency position has forced on her.

The trouble with a massive increase in international reserves to foster economic growth is that it would almost certainly increase inflationary trends and thus require in the future further revaluations of gold. In this case "countries would become reluctant to hold their reserves in currencies that would no longer be regarded as a store of value as equivalent to gold."²⁷ Thus the expansionist proposal might end in leading to a decrease of international liquidity.

We can even argue that the first general increase of the value of gold (or even repeated forecasts of such an event)²⁸ would induce holders

²⁴ Jacques Reuff, *loc. cit.*

²⁵ Michael A. Heilperin, "Monetary Reform in an Atlantic Setting," in *International Payments Imbalances and Need for Strengthening International Financial Arrangements*, hearings, Subcommittee on International Exchange and Payments of the Joint Committee, Congress of the United States, Washington, 1961, p. 338.

²⁶ Cf. Sir Roy Harrod, "The Dollar Problem and the Gold Question," in Seymour E. Harris, editor, *The Dollar in Crisis* (New York: Harcourt, Brace & World, Inc., 1961), pp. 46-62.

²⁷ Maxwell Stamp, "The Fund and the Future," *Lloyds Bank Review*, October 1958, p. 10.
²⁸ See Fritz Machlup, "Plans for Reform of the International Monetary System," Princeton University Press, 1962, p. 46.

of dollar balances to convert them into gold, which would mean the collapse of the present system.

A SUPRANATIONAL BANK

We have seen that it was the weakness of the International Monetary Fund as established in 1944 which forced the United States into her present position as key currency country. The solution of the key currency problem, therefore, seems to be the creation of a much stronger international institution, a supranational bank. This bank could offer all or several of the following advantages: It could arrange for a general multilateral clearing of international payments deficits and surpluses; could create a mutual exchange pool; could create or destroy international money on its own initiative and according to the requirements of world trade; could exert pressure on members to coordinate their monetary and fiscal policies; and supervise all exchange rate adjustments.

The creation of a supranational bank which would be the consistent conclusion of the development which led to the creation of central banks within the national credit systems has only one fatal shortcoming, it is not acceptable because it "would require all countries of the world to give up their present reserves and accept instead the fiat issue of a superauthority existing without a superstate."²⁹

However, it is worth while to briefly discuss these ambitious proposals if only as a frame of reference for the more practical solutions within our reach.

The proposals for a supranational bank can be divided into three main categories.

We consider first a Clearing Union of the type proposed by Lord Keynes in 1943. We saw that this arrangement was unacceptable to the United States because a surplus country would have been expected to build up bancor balances far in excess of its quota. Bancor deposits with the Clearing Union would have come into being either through the sale of gold to the Union or through the use of overdraft facilities by deficit countries. Since the surplus countries have agreed to accept bancor checks, no technical difficulties would arise.

But what if the deficit countries tend to make excessive use of their overdraft privileges? Domestic inflation in these countries would create balance of payments deficits which would, in turn, create (through the use of overdraft facilities) bancor balances. While the Keynes plan contained some interesting devices by which it tried to introduce a modicum of integration of the monetary policies of its members, and while it looked "on excessive credit balances with as critical an eye as on excessive debit balances,"³⁰ it stated expressly that "there should be the least possible interference with internal national policies, and that the plan should not wander from the international terrain."³¹

The Keynes plan would have offered very little leadership in international monetary cooperation, much less than was actually offered by the United States as key currency country. Unless a clearing system

²⁹ Robert V. Roosa, "Assuring the Free World's Liquidity," Business Review Supplement, Federal Reserve Bank of Philadelphia, September 1962.

³⁰ "Proposals for an International Clearing Union," op. cit., II, 6, 7.

³¹ *Ibid.*, preface.

of this type were accompanied by a strong effort toward integration of national economic policies, it would not be an improvement over the present state of affairs. In other words, the drawing of bancor checks and even the piling up of bancor credits would have to be made dependent on conditions which could insure balance of payments equilibrium.

It is worth noticing that Lord Keynes wanted the United States and the United Kingdom to agree not to accept reserve balances of other countries "in order that sterling and dollars might not appear to compete with bancor for the purpose of reserve balances."³² Keynes may have wanted to protect these two countries against the obligations connected with a key currency position.

A second type of supranational bank³³ would pool the existing foreign exchange and gold reserves. Key currency reserves would be transformed into deposits in the supranational bank and would carry a gold guarantee. Thus the present dollar balances would become an asset of the new bank which the key currency country could gradually pay off. It must be noted, however, that the bank's gold guarantee for member deposits implies a gold guarantee for the dollar assets of the bank. Since these assets would be huge, the gold guarantee would be a deterrent to a devaluation of the former key currency.

The supranational bank would not limit its activities to the pooling of the members' reserves. As a real central bank it would have the power to create additional reserve deposits through lending at the members' request or, on its own initiative, through open market purchases of securities.

If the leaders of the supranational bank knew how much international money (in the form of member deposits) would be best for the world economy and if the central bankers of the world agreed with them, we would have found the ideal international monetary system, a system only one step removed from that state of complete integration of national economic policies which is implied in the assumption of a supergovernment.

This stage we have not reached. Creation of international deposits implies the creation of national money by an international authority since actual purchases can be made only nationally with national money. We must remember, furthermore, that these international deposits would play the same role that gold plays today; that is, that a multiple national credit creation could be superimposed on the credit creation by the supranational bank.

The opposition to such an arrangement would be similar to the opposition of the United States to the Keynes plan in 1943. Members would not be willing to have their domestic monetary policy dictated by an international agency.

Furthermore, it would be doubtful that they would be willing to part with their present reserves in exchange for deposits in the supranational bank. Since the originally deposited key currency balances would gradually be paid off by the key country, the assets of the supranational bank would consist increasingly of investments whose

³² *Ibid.*, V, 25.

³³ Too many proposals of this type have been made to permit a discussion of their detailed suggestions. The best known are the Triffin plan and the Meade plan. Cf. Robert Triffin, "Gold and the Dollar Crisis," *op. cit.*, and James E. Meade, "The Future of International Trade and Payments," *The Three Banks Review*, June 1961.

superiority to present dollar balances may well be doubted, particularly if the bank's investment policy (not willing to carry coals to Newcastle) should favor securities issued by the governments of underdeveloped countries.

A third type of supranational bank would be very similar to the present International Monetary Fund, but with the difference that the Fund would be entitled to sell its own obligations to member governments and that the member governments would always be obliged to make such loans to the Fund. In contradistinction to the case of a supranational bank (which buys securities with newly created international money), the International Monetary Fund has to sell its own securities if it wants to increase its resources of member currencies over and above the currencies and the gold it receives through the members' quota contributions.

Again, it is most unlikely that the members of the Fund will agree to delete the part of article VII, section 2 of the Bretton Woods Agreement which emphasizes that "no member shall be under any obligation to make such loans to the Fund." But to the extent that the members are willing to extend credit to the Fund, the members and the Fund can actually increase international liquidity. By stretching our terminology we can argue that the Fund "creates" international money in the sense that it gives to the national currencies, which are paid into it or are loaned to it, the character of international money.

KEY CURRENCY AND INTERNATIONAL MONETARY FUND

We have seen that the International Monetary Fund as created in 1944 was too weak and that the United States had to take on the task to lead the free world back to convertibility. Shouldering the main burden, the United States decided not to disburse its aid through the Fund and the Fund was not conceived as an institution which would ever be asked to aid the United States. The U.S. reluctance to work through the Fund rested on the fact that the Fund seemed too weak to bring about the necessary international monetary cooperation which was the basis of a return to convertibility.

But with the end of the dollar shortage, the return to convertibility, and the U.S. balance of payments deficit, the relationship of the Fund and the United States underwent a change.³⁴ It became clear that the Fund could play a most important role in support of the key currency by preparing itself to aid the United States if this aid should be required.

Help by the Fund could be needed in the case of large-scale withdrawals of gold from the key currency country. In order to stand ready to render this assistance, the Fund had to reinterpret article VI of the Fund agreement which states that "a member may not make use of the Fund's resources to meet a large or sustained outflow of capital." It has now been decided that the Fund's resources can be used for this purpose "provided that appropriate measures were being taken so that the disequilibrating outflow could be arrested and that assistance provided by the Fund could be repaid within a maximum pe-

³⁴ For an interesting comment on the changed position of the United States in the International Monetary Fund by a British observer, see W. M. Scammell, *International Monetary Policy* (London: Macmillan & Co., Ltd., 1961), p. 402.

riod of 3 to 5 years."³⁵ This change in attitude reveals an understanding of the difficulties which a key currency country in deficit may have to face.

Even though the Fund has gained strength through an increase of the members' quotas and through the convertibility of a larger share of its resources, it was felt that it should prepare itself for a possible emergency which would require extraordinarily large resources. Accordingly, the Fund has concluded special borrowing arrangements with the main industrial countries. Ten members have agreed, subject to ratification, to lend to the Fund up to specified amounts when the Fund needs additional resources.³⁶

These standby agreements with the main industrial countries are a counterpart to the standby agreements which the Fund has (since 1953) concluded with deficit countries. Under these arrangements deficit countries may purchase from the Fund up to an agreed limit on the understanding that they must repurchase their currencies from the Fund within a limited period. The Fund receives such requests favorably when the standbys "are intended to support a sound program aimed at establishing or maintaining the enduring stability of the member's currency at a realistic rate of exchange."³⁷ We have already seen that the Fund now also stands ready to help a member meet a situation of sustained capital outflow "provided that appropriate measures are taken."

This change in interpretation from a purchasing "right" to a use of the Fund's resources conditional on the willingness to pursue domestic policies which will lead back to equilibrium, was a decisive step away from the Keynesian attitude that an international agency should be based on the principle of "the least possible interference with internal national policies." It was a step toward the establishment of the indispensable basis of any successful international payments system, the coordination of domestic economic policies, not by an automatic mechanism, but by consideration of special problems facing individual countries.

However, standby agreements with deficit countries are only half of the effort needed to maintain orderly monetary cooperation. To be effective, the Fund needs the help of the surplus countries, both through loans to the Fund and through the surplus countries' participation in the maintenance of international payments equilibrium.

Their surplus position implies that these members are momentarily not dependent on the Fund. Their willingness to conclude standby agreements with the Fund can, therefore, be considered an achievement in international cooperation. However, there is also a possible advantage to be gained by aiding the key currency through the Fund. Since the surplus country would acquire Fund deposits rather than additional key currency balances, it would enjoy the protection of article IV, section 8, according to which a member in case of devalua-

³⁵ International Monetary Fund, Summary Proceedings, Washington, 1961, p. 26.

³⁶ "The Fund can acquire up to \$6 billion, including \$4 billion of convertible currencies other than U.S. dollars. These resources will enable the IMF to act effectively in dealing with large movements of funds, including movements out of dollars." See "Capital Flow and International Payments," Federal Reserve Bulletin, March 1962, p. 277. These standby agreements follow suggestions made by Edward M. Bernstein in *International Effects of U.S. Economic Policy*, Study Paper No. 16, Joint Economic Committee: Study of Employment, Growth, and Price Levels, Washington, 1960. See also "The Adequacy of U.S. Gold Reserves," *The American Economic Review*, May 1961, pp. 439-446.

³⁷ International Monetary Fund, Annual Report, 1959, p. 22. The annual report 1960, p. 19, states that these policies "have been found to be eminently practicable."

tion of its currency "shall pay to the Fund within a reasonable time an amount of its own currency equal to the reduction in the gold value of its currency held by the Fund."

With standby agreements in both directions, the Fund's structure has gained symmetry. Article VII, section 2, of the Fund agreement, which says "no member shall be under any obligation to make such loans to the Fund," remains unimpaired. However, the new standby agreements permit the Fund to go as far as circumstances will allow in preparing for a situation which will require increased international liquidity. The Fund can develop initiative, urge cooperation on the members (both deficit and surplus countries), and exert pressure on deficit countries, but the national monetary authorities are still realistically acknowledged as what they are: the authorities on whose decision success or failure of the international payments system will eventually rest. In other words, the newest developments in the International Monetary Fund enable us to come as close as is practically possible to the realization of an international central bank even though we remain far short of a supranational bank.

PROTECTION AGAINST SPECULATION

Apart from the role which the International Monetary Fund may play in strengthening the key currency system, there are measures which can be employed directly by the key currency and other leading countries.

To improve its reserve position, the key currency country can increase its reserves by adding to its gold stock the convertible currencies of other countries. These can be "used as a 'masse de manoeuvre' in the foreign exchange market and to serve as a first line of defense."³⁸ The Federal Reserve plans to put the operations of the U.S. Treasury's relatively small exchange stabilization fund soon on a broader basis with the intention of avoiding "disorderly movements of exchange rates, which might otherwise spark disruptive flows of funds internationally."³⁹

These operations could be strengthened and a second line of defense created, if the national stabilization funds or central banks cooperated through the mutual establishment of credit balances. Recent bilateral relationships of this type between the key currency country and other leading countries are a clear sign of the increasing willingness on the part of the latter to aid the former in the solution of its special problems.

The readiness of the International Monetary Fund to aid the key currency when necessary can be listed in this connection as a third line of defense.

It is somewhat early to speak of the development of a multicurrency standard, but consistent effort in this direction could eventually lead to a more even distribution of the burden connected with the maintenance of international liquidity.

Considering the array of defenses of the key currency, it seems unlikely that private speculation could cause disorderly and dangerous

³⁸ Xenophon Zolotas, "Toward a Reinforced Gold Exchange Standard," Bank of Greece, papers and lectures, Athens 1961, pp. 11-12.

³⁹ See "Monetary Fund Resources and International Payments System," Federal Reserve Bulletin, March 1962, p. 281.

movements of exchange rates. However, no finite amount of reserves would be sufficient to maintain a given exchange rate in the face of a persistent serious balance-of-payments deficit nor would any central bank want to risk its resources in the support of a currency whose official value differs too obviously from the equilibrium rate of exchange.

It must be emphasized that official guarantee of the gold parity of a currency would not help at all, if this gold parity is visibly out of line with the purchasing power parity or other criteria. If a country's international payments are in equilibrium, a guarantee is not needed; if, however, a deficit is persistent and the country's domestic policy not reassuring, a guarantee will be in vain. Besides, many depreciations and devaluations of the past were preceded by pledges that they would not happen.

We come here upon a basic weakness of the Bretton Woods system of the adjustable peg. The exchange rates of the member currencies are fixed but not unalterably. When they diverge too far from the equilibrium rates, they can be adjusted with the permission of the Fund. The arrangement is a compromise which lacks both the disciplining effect of (unalterable) fixed rates and the equilibrating effect of flexible rates. Furthermore, it is exposed to dangerous speculative movements when the fixed rate differs substantially from the equilibrium rate, i.e., in the case of a serious and protracted balance-of-payments deficit. As long as the exchange rate is altered in stepladder fashion and the direction of a possible change is not in doubt, speculation becomes irresistible because it is practically without risk (and therefore hardly "speculation" at all). In the worst case for the speculator, the devaluation does not come off and he has lost but a very small margin.

Only when basically conservative policies create confidence in the stability of the national currency, can this dangerous feature of the adjustable peg system be disregarded. But this assumption eliminates the very "flexibility" by which the Bretton Woods experts wanted to adjust the international payments system to modern conditions; or it eliminates it at least for the key currency country.

INTEREST DIFFERENTIALS AND FLEXIBLE EXCHANGE RATES

All the practical proposals which have been discussed so far aim at supplying larger reserves to the key country or other countries "thus providing them with opportunity to correct maladjustments without resorting to measures destructive of national or international prosperity."⁴⁰ But none has removed the inequity that the key currency country is more restrained in its national policies than all other countries.

It must be doubted that much freedom for the key currency country could be achieved through the device of permitting "the Federal Reserve to establish separate maxima rates of interest paid by member banks on time and savings deposits held in this country by foreign governments or monetary authorities."⁴¹

⁴⁰ International Monetary Fund, articles of agreement, art. I.

⁴¹ White House message on balance of payments and gold, Feb. 6, 1961. See also "Higher Interest Rates on Time Deposits of Foreign Governments," hearings, Committee on Banking and Currency, 87th Cong., 2d sess., 1962.

The proposal can be criticized on the following grounds:

(1) If a foreign central bank should fear that in consequence of a balance-of-payments deficit the key currency might be devalued, higher rates of interest would not deter it from changing key currency balances into gold.

(2) If the differential treatment is extended to private holders of dollar balances, as Zolotas proposes,⁴² it violates a basic principle of the market economy and is not likely to succeed. Keynes pointed out that it is not practical to solve the problem of destabilizing capital movements or to maintain national autonomy by paying different rates of interest to foreign and domestic depositors, since in the field of credit it is quite impossible to render different parts of the market uncompromisingly watertight.⁴³

(3) Interest rate differentials would be too weak to secure for the key currency country independence of its domestic monetary and fiscal policies from balance-of-payments considerations. Interest rate differentials would be much less effective in this respect than minor exchange rate fluctuations.

Unfortunately, even minor exchange rate fluctuations seem to be ruled out at the moment because in the present psychological climate nothing less than perfect and unalterable stability of the key currency is supposed to be acceptable. Though a case can be made for a system of flexible rates,⁴⁴ the chances for the adoption of such a system seem to be as remote as those for the establishment of a supranational bank. Yet while the supranational bank has to wait for the superstate, the system of flexible exchange rates could be introduced as soon as the present weakness of the dollar has been overcome and a multicurrency standard has been evolved.

A system of flexible exchange rates would have the following advantages: It would greatly reduce the need for international reserves because exchange rates would be permitted to act as market prices to achieve equilibrium in the foreign exchange markets; it would give greater freedom to national economic policies because we would not be forced to vary interest rates in order to keep exchange rates fixed; and it would make private speculation a stabilizing rather than a disequilibrating force since it would remove the weakness of the present adjustable peg system.

We could introduce the system of flexible exchange rates in a very preliminary form and within the present framework of the International Monetary Fund by permitting the members of the Fund to introduce greater margins above and below par value for transactions in gold according to article IV, section 2.

Keynes suggested already in 1930⁴⁵ that greater autonomy for domestic credit policy could be achieved by pushing the gold points of

⁴² "Toward a Reinforced Gold Exchange Standard," *op. cit.*

⁴³ John Maynard Keynes, "A Treatise on Money" (New York: Harcourt, Brace & Co., 1930), vol. II, p. 319. The same criticism (that artificial differences cannot be maintained in the credit market) also applies to those who attack the Federal Reserve's "bills only" policy. These critics argue that, via open market policies, the Federal Reserve should try to reduce the long-term rather than the short-term rates of interest. But since long- and short-term rates move always more or less together, the desired separation of domestic and foreign economic policies could hardly be accomplished through the mere abandoning of the "bills only" policy.

⁴⁴ See George N. Halm, "Fixed or Flexible Exchange Rates?" in *Factors Affecting the United States Balance of Payments*, pt. 4, p. 255; Joint Economic Committee, 87th Cong., 2d sess., Washington 1962.

⁴⁵ Keynes, "A Treatise on Money," *op. cit.*, ch. 36.

fixed exchange rates apart by letting the monetary authorities buy gold at a lower and sell it at a higher price. What manipulations of short-term interest rates might not be able to achieve or only with detrimental effects, could now be done through the adjustment of buying and selling prices of gold. Undesirable capital or gold movements would be discouraged through exchange losses which wipe out gains from interest differentials. In addition, exchange fluctuations between gold points would help in the adjustment of the international trade balance. The fact, finally, that exchange rate fluctuations would not be permitted to exceed predetermined margins would eliminate disequilibrating capital flight movements.

Of course, fixed limits to exchange rate fluctuations would still require a high degree of integration of national economic policies.

