THE 1978 MIDYEAR REVIEW OF THE ECONOMY

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THE 1978 MIDYEAR REVIEW OF THE ECONOMY

WEDNESDAY, JULY 12, 1978

INTERNATIONAL OUTLOOK

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to recess, at 9:30 a.m., in room 5110, Dirksen Senate Office Building, Hon. Parren J. Mitchell (member of the commitee) presiding.

Present: Representative Mitchell and Senator Javits.

Also present: John R. Stark, executive director; Louis C. Krauthoff II, assistant director; Richard F. Kaufman, assistant director-general counsel; Lloyd C. Atkinson, Kent H. Hughes, L. Douglas Lee, and M. Catherine Miller, professional staff members; Mark Borchelt, administrative assistant; and Charles H. Bradford, Stephen J. Entin, and Mark R. Policinski, minority professional staff members.

OPENING STATEMENT OF REPRESENTATIVE MITCHELL

Representative MITCHELL. The hearing will come to order.

I want to welcome you all to another session of the Joint Economic Committee's midyear hearings on the American economy. Today, the committee will hold the first of four hearings on the state of the international economy and what international problems imply for the United States.

We will start with a broad overview that will include an assessment of the prospects for economic growth and price stability around the world. We will also explore the prospects for a more stable dollar, a decrease in the U.S. trade deficit, and the possible outcome of the upcoming economic summit to be held in Bonn, West Germany, on July 15 and 16. Subsequent hearings will explore the challenges that confront U.S. trade policy, and the problem of international adjustment in the context of floating exchange rates, multinational corporations, and the general increase in economic interdependence.

Since World War II, the international economy has undergone a series of sharp changes. The Bretton Woods system of fixed exchange rates based on gold and the U.S. dollar has given way to a wide array of currency arrangements. Some foreign currencies are tied to the dollar or other major currencies. Others are subject to periodic depreciation. Still others are allowed to float upward or downward largely independent of government intervention. The United States has been

freed of some of the added burdens of a reserve currency, but the dollar and dollar stability remain central to the international monetary system.

The successful cartelization of the international oil market and the quintupling of oil prices stunned the Western World. Although existing economic institutions have proved resilient in adapting to the financial problems posed by a massive OPEC current account surplus, there is every sign that the major industrial economies have not yet fully adapted to sharply higher energy prices. Considerable progress has been made in the United States and elsewhere in terms of conservation and conversion of existing assets. But the legacy of slowed investment, indifferent growth, and inflation is still widespread.

The nonmember oil developing countries have also become an increasingly important part of the world economic system. Not only are they a major market for the manufactured exports of the United States and other industrial countries, but in several cases, developing countries have themselves become major exporters of manufactured goods. The increase in economic power and the growing diversity of developing countries have made their political and economic positions both more pressing and more complex.

During the postwar era, the world became more and more an economic unit. Even the Soviet bloc has become more closely alined with the economic fortunes of the rest of the world as it has looked to the West for technology, sophisticated manufactures, and agricultural goods. The United States has been no exception to this trend. Where the international sector was often simply ignored in the past, imports and exports combined now account for about 14 percent of America's gross national product. Both account for a much higher percentage of the Nation's industrial and agricultural production.

Major changes in international economic institutions have accompanied the changes in the world economy. Multinational corporations have expanded the volume and speed of international capital transactions. The existence of active Eurodollar and Asian-dollar markets has made control of world money supplies more difficult.

In a very new international environment, America is now struggling with a series of economic problems. The record trade deficit of 1977 will almost surely be challenged by the trade deficit for 1978. To some extent the tools for controlling the deficit are in our own hands. Reducing domestic inflation will help spur U.S. exports, and an effective energy program will help regulate the size of U.S. oil imports. But a decrease of the deficit also depends on faster growth abroad and the reduction of barriers to U.S. exports.

The size of the U.S. trade deficit coupled with an increase in the rate of inflation have contributed to considerable instability of the dollar in foreign exchange markets. Given the substantial trade and current account surplus of Japan and Germany, some appreciation against the dollar was appropriate. But the speed and severity of the change may have created the kind of uncertainty that slows investment and reduces the volume of world trade.

To help us find an intellectual path through this thicket of issues, we are fortunate to have with us Under Secretary of State Richard Cooper. Mr. Cooper will be followed by three distinguished experts on the international economy, Mr. John Norris of Chase Econometrics;

Mr. E. M. Bernstein, a Washington-based economic consultant; and Mr. David Ranson of H. C. Wainwright & Co.

Mr. Cooper, we are very pleased to have you with us again this morning. Please proceed with your statement.

STATEMENT OF HON. RICHARD N. COOPER, UNDER SECRETARY OF STATE FOR ECONOMIC AFFAIRS, ACCOMPANIED BY STANLEY BLACK, SPECIAL ASSISTANT

Mr. COOPER. Thank you. It is a great pleasure for me to appear before the committee today to discuss our international economic policies.

I have with me today, Mr. Stanley Black, who is my special assistant, and who is a specialist in this area. He may help in responding to some of your questions.

This is a particularly timely occasion to be holding these hearings. Later this week, President Carter will be in Europe attending a summit meeting with the heads of state or government of our major allies and trading partners. I would, therefore, like to focus my prepared remarks on the policy framework the President will be advocating and the objectives he hopes to achieve. I shall discuss the current international economic setting, our domestic economic policy objectives, and our consequent approach to the summit. I will conclude with some thoughts about the relation of our current efforts to our longer term interests.

THE CURRENT SETTING

As you know, the world economy has still not fully recovered from the deep recession of the past few years. This week's summit meeting occurs against a backdrop of slow growth at a rate of 3½ percent this year, in the OECD area. Inflation has been reduced in all the major countries from the magnitudes of 3 years ago, but unemployment in the OECD area outside the United States is at a postwar high of some 10½ million persons and is growing, particularly in the smaller industrialized countries.

Large payments imbalances persist, pressures to restrict trade are widespread, private investment is low, and we have seen periods of exchange rate instability. The situation, of course, varies significantly from country to country. In addition, slow growth in the industrialized nations is limiting the development prospects for many Third-World nations with whom our own welfare is increasingly connected.

Improvements are possible over the next year. National growth rates are converging in the OECD area, with favorable implications for balance-of-payments patterns. The external financial situations of a few countries which only recently were in perilous condition have improved significantly. In several countries, inflation rates are continuing their slow decline, and we are making headway in further liberalizing trade.

To maintain this momentum, however, will require additional actions. The mere continuation of current economic policies will not be sufficient to put the world economy back on track so as to reduce aggregate unemployment and to facilitate necessary adjustment to high energy prices and changing trade patterns.

U.S. DOMESTIC ECONOMIC OBJECTIVES

President Carter has clearly articulated our major domestic economic objectives.

We must reduce our inflation, or run the risk of continued uncertainty in our investment climate, erosion of the economic security of our citizens, reduced growth, and instability in the exchange markets.

We have made outstanding progress in creating 7.4 million new jobs for Americans durinng the past 2 years, and good progress in reducing the number of Americans without jobs from 7 million to 5¾ million. But we must do better in the months ahead, particularly with programs targeted on those specific groups, such as young people and minorities, which have experienced problems finding employment.

We urgently need energy legislation to limit oil imports and to encourage conservation and the development of alternative energy sources. The failure to implement an energy program has reduced confidence abroad in our ability to manage our domestic policy effectively and to fulfill our international responsibilities. It has also contributed to recent monetary disturbances.

We must act now to reduce our trade deficit even though our policies might take months or years to bear fruit. Energy legislation will help to restrain our oil imports, which is a significant part of the deficit. In addition, we must strengthen the performance of our export sector.

And we must maintain markets open to fair competition from abroad. Trade is essential if we are to combat inflation while at the same time achieving high productivity and growth.

OUR APPROACH TO THE SUMMIT

I wanted to outline briefly these domestic objectives in order to show that our international economic policies are designed to reinforce them. The simple fact is that today it is not possible for any nation, even the United States, to achieve all its domestic objectives in the absence of generally compatible policies by other countries. Our dependence on foreign markets and on foreign supplies, and the general interconnectedness of markets and hence of economic conditions, is too great for that.

At the summit the President will work toward cooperation with other summit participants to insure global economic recovery. He will be making the case that by acting together rather than in isolation, countries can increase the effectiveness of their individual actions, all of which are subject to political and economic constraint. The specific issues will fall into several related categories.

First, the President will underscore the need for sound macroeconomic policies. His focus will be on the following:

The need for actions by countries which are growing slowly and have strong balance-of-payments positions to grow faster. In terms of our own interests, this would help us expand our exports and contribute to stability of exchange markets.

The need for certain nations, including the United States, to take effective measures to reduce inflation. We can expect to come under some pressure to demonstrate that we can manage the problem.

The need for countries to create an economic environment which encourages governments to give greater freedom to market forces in

bringing about adjustment to new economic circumstances. At stake for us is the reduction of rigidities and inefficiencies in our own economy, as well as the maintenance of an international economy characterized more by competition than by Government subsidy and control.

The macroeconomic strategy to which the President will be referring has come to be known as concerted action. It has two interlocking aspects, appropriate demand management policies in different countries, and policies to encourage resources to respond to market forces to insure appropriate growth of supply.

I append to this statement an illustrative simulation of the probable effects of one pattern of coordinated demand management policies in different countries. The results suggest that growth outside the United States could be substantially higher without raising inflation rates very much.

Further, a notable aspect is that in most cases the pattern of international payments imbalances would be improved somewhat. On the supply side, I refer to the IECD guidelines for adjustment policies, which were agreed to by OECD Ministers at their meeting on June 14–15 in Paris.

Second, the President will make clear our support for the newly revised international monetary system, with its reliance on flexible exchange rates and the international surveillance of exchange rate policy. This system does not work perfectly, but it allows a necessary flexibility in a world in which countries' policies are too often out of step with each other. Stability of exchange rates is dependent on reasonable balance in the fundamental factors affecting payments positions, such as economic growth rates, inflation rates, and energy policies. In the meantime, a strengthened system of financing balance-of-payments deficits for many countries requires a strengthened International Monetary Fund. The Witteveen facility or supplementary financing facility of the IMF is now seriously delayed through lack of Senate approval. All countries will be eligible to use this facility.

Third, the President will aim to gain approval for the essential elements of a package of agreements now emerging from the multilateral trade negotiations in Geneva. We would like to see all the negotiations completed by the end of the year. Major U.S. interests are clearly at stake here: Expanded markets, jobs, and the many other benefits which derive from an open international economy. U.S. negotiators, under the leadership of Bob Strauss, have led the way in the reduction of tariff barriers, and the strengthening of the rules governing international trade. Progress on two issues is of particular importance to us: Establishment of a more open and stable system for trade in agriculture and more international discipline over the use of subsidies. We expect to be presenting the trade agreements to Congress early next year.

Fourth, there will be extensive discussion of national energy policies and possibilities for international energy cooperation. I underscore the weak position the President will be in. All of the countries present need to strengthen their energy policies in various ways. But we alone among the other summit participants have not yet agreed among ourselves on policies to allow our energy prices to rise to world levels. In addition to focusing on our domestic situation, the energy discussion

will center on ways to increase investment in the energy sector, to improve national conservation efforts, and to expand energy cooperation with the non-OPEC developing nations.

Fifth, the President will be engaged in discussions on economic relations with the developing countries. It has become increasingly clear that economic growth in the Third World is an important element in the global economic situation. Our own trade and investment ties with these nations are strong and growing. The summit participants will exchange views on the need to expand and make more effective our respective foreign assistance programs; to support the continuation of private capital flows to the Third World; to keep open our markets to the Third World; and to find ways to encourage developing countries to accept obligations in the international economy such as the need for many of them to reduce over time their high trade barriers.

Once again, however, the President's ability to exercise leadership in this area is weakened by our own inhibitions. As you know, our own foreign assistance programs are small relative to our income, and our contributions to the multilateral development banks are running well behind our pledges. In addition, despite our efforts to increase our foreign assistance levels and make our aid more effective, our foreign aid request for fiscal year 1979 is seriously threatened in Congress by deep cuts in appropriations and proposed legislative restrictions.

Despite the economic situation both we and the developing countries have faced, and the difficulties we have had delivering on specific commitments, I believe this administration has made significant progress in our relationship with the Third World. The President intends to keep up this momentum.

THE LONGER TERM

In our current policies I believe you can see the outline of a strengthened international economy for the future.

Sound macroeconomic management is essential to lay the base for a sustained long-term growth, which is a precondition of a prosperous international economy, and a stable monetary system.

In the trade negotiations we are reaching a consensus with other nations on the rules and procedures to govern international commerce for years to come.

In our efforts to fashion an effective national energy policy and pool our efforts with other countries, we are trying to manage both our international payments position and a difficult transition to the time when oil and gas will not be our principal source of energy.

And in our policies toward the developing countries we are searching for ways to cooperate in areas where both we and they stand much to gain.

CONCLUSION

We cannot eliminate all our economic problems quickly; they are too deepseated, and our policy options are circumscribed by a variety of political, social, and technical constraints. Yet every year in which we fail to make progress has major costs to our society; in rigidities added

to our economy, in supply bottlenecks built up, in the higher costs of adjustment, and most importantly in the ultimate lowering of material well-being for our citizens and the permanent scars on many of our youth who cannot find work. We are redoubling our efforts to make progress, and in this effort both the administration and Congress will have to work very closely together. I appreciate the chance to make this brief statement of our international economic policies, and I look forward to your questions.

[The appendix attached to Mr. Cooper's statement follows:]

APPENDIX. IMPACT OF COORDINATED DEMAND MANAGEMENT POLICIES

The following table indicates the results of a simulation of a coordinated expansion strategy with the Project LINK model which includes linked econometric models of twelve industrialized OECD countries. The results are meant to be only broadly illustrative of the expected effects of coordinated policies, since such models inevitably suffer from a number of limitations. The simulation compares the effects of the following fiscal stimuli with a control solution based on policies as of May 19, 1978 (including in the control solution a proposed U.S. tax cut of $19.4 billion in January 1979): (a) sustained fiscal stimuli to raise GNP by 1 percent over the control solution in 1978, 1979, and 1980 in France and the Netherlands, and in 1978 and 1979 only in Belgium, Germany, Japan, and the U.K.; (b) sustained fiscal stimuli to raise GNP by 0.5 percent over the control solution in 1978, 1979, and 1980 in Finland, and in 1978 and 1979 only in Italy; (c) no further stimulative actions in Australia, Austria, Canada, Sweden, or the United States. These fiscal stimuli could in many cases take the form of tax cuts. Monetary policy is assumed unchanged in each country, according to the monetary assumptions in each model.

EFFECTS OF COORDINATED FISCAL STIMULUS ON GROWTH AND TRADE BALANCES OF OECD COUNTRIES, 1978–79

	Incremental growth of real GNP, average of 1978 and 1979 (percent)	Incremental change in trade balance, 1978 plus 1979 (billion dollars)
Australia	0.1	0.6
Austria	.8	.2
Belgium-Luxembourg	1.9	−3.0
Canada	.2	.6
Finland	1.1	.1
France	1.2	−1.0
Germany, Federal Republic	1.5	−4.6
Italy	1.4	----------
Japan	1.0	−1.2
Netherlands	1.6	.1
Sweden	−.1	.5
United Kingdom	1.1	−2.2
United States	.1	5.2

Representative MITCHELL. Thank you very much for a very provocative and cogent statement.

Let me say before I start the questioning that with reference to the foreign aid bill and the proposed deep cuts that are floating around in the House and Senate, this is one Member in the House who is in deep opposition to those cuts.

I think it is foolhardy, as we are attempting to estabilsh our position in relationship to particularly Third World nations, as we are attempting to achieve rapprochement with various nations—I think it is foolish to go in for meat-ax cuts. It may be politically popular, but certainly in the long run—and in the short run—it is a bad policy to follow.

I want you to know that one Member of the House is in opposition to those cuts.

Mr. COOPER. We appreciate your support.

Representative MITCHELL. Spread throughout your statement you talked about the necessity for this Nation to act on the very pressing problem of inflation. The President will go to the economic summit, and it seems to me that the summit will revolve around the ability of the United States to control inflation, to reduce oil imports, and the willingness of Germany and Japan o stimulate their economies.

I guess it certainly boils down to the principles of free trade. However, with no energy bill having come out of the Congress as yet, and with accelerating domestic inflation, I must ask you quite bluntly, have we not sent the President to the bargaining table with essentially empty hands?

He is going there certainly to deal with American inflation with reference to the international economy. But we have done nothing on the two key issues that you talk about in your statement. Congress has not.

So essentially have we not crippled the President by our inactivity, crippled him at the summit?

Mr. COOPER. In answering that question, I think I would say at the outset that I do not believe the President is crippled as he goes to the summit.

I do agree with the drive of your question, that his position would be far stronger if by this time, which is now—what 18 months after he first proposed his energy program, the central features were through the Congress.

We would be in a far happier situation if that were the case. However, as you know, there has been substantial agreement on four parts of the five-part package as it has moved through Congress.

I think the President can report that at the summit, and we hope very much he will be redoubling his efforts to encourage Congress to to give him the fifth part of the bill in the near future.

I don't feel he is crippled, although his position is certainly weaker than it would otherwise be.

I might point out in this context that our actual energy consumption in this country has taken a turn to the better compared with historical trends. It is true that during the last 18 months U.S. energy imports have grown rapidly, although they leveled out this year because of Alaskan oil.

But it is also true, if one penetrates below the figures, that the American public has responded to the energy shortage, and to higher energy prices than obtained before 1973. If I can just cite one set of figures: GNP in the United States has grown by nearly 15 percent in real terms since 1972, but energy has grown—energy consumption has grown—by only 5½ percent during that intervening period, which is just a third more, the ratio between those numbers.

That contrasts with an historical experience existent since the early 1970's with energy growing slightly faster than GNP. So one can see in our economy, and as a result of both higher prices and the policy actions that are taking place so far, one can see a response by the American public.

It is just that as we project these figures out to the future, we still see an important imbalance in the world energy situation. And we feel that the energy program now before the Congress is essential to keep the world energy situation in balance through the 1980's and beyond.

On the question of inflation, it is, of course, a matter of tremendous concern to the President, and to the other industrialized countries, what the rate of inflation in the United States is. We have been troubled by the movement upward in rates of inflation earlier this year. In fact, much of that we attribute to factors that are essentially temporary. They are in the agricultural area. We do not see the rates of inflation that we observed during the first 4 months of this year continuing throughout the year and into 1979.

Nonetheless, the price increases that we have seen this year dramatize the exposure we still have to inflation. As you know, as our own economy recovers further, our present priorities have understandably shifted toward giving much greater attention to inflationary pressures, and the administration's deceleration program is intended to give some kind of guidance to the economy as a whole in order to get rates of inflation down.

Representative MITCHELL. Let me just say as an aside, I am concerned about inflation. But I argue all the time against this No. 1 goal while we leave structural unemployment as high as it. That is a matter for another hearing and another committee.

But I take sharp difference with setting forth one major goal, the fight against inflation, while we have so many people, minorities particularly, unemployed.

Let me get back to the economic summit. I suppose that since after World War II, generally we tried to do political bargaining over international matters through tax treaties and trade treaties, and suddenly there appears to be an annual economic summit that provides an international forum for the discussion of what was formerly viewed as domestic economic policy.

There are some who have questioned the worthwhileness of these economic summits. Take a situation such as we confront at this summit, where the President is going without an energy policy which is certainly not locked up in place, and with other problems that need to be resolved.

There are those who would question the wisdom of an annual economic summit, primarily because it is so difficult for America or any other nation to get all the bricks into place.

I would like to ask you for your opinion or an assessment as to whether or not an annual economic summit approach is better than, equal to, or worse than the former approach which we used in the past on treaties, tax treaties, trade treaties?

Mr. COOPER. Yes. In effect you are saying——

Representative MITCHELL. May I just throw one more into that?

With the understanding that it is good always to have an international forum to have discussions. But in terms of significant, concrete results, this approach compared to the past approach; which would you prefer?

Mr. COOPER. I don't see these as competing forums. On the contrary, I think they are complementary. We will continue to need tax treaties

and trade agreements, and indeed, the multilateral trade agreements that are now going on are of the type that you referred to as having a continuity over the last 30 years.

In this case it will be laid before the Congress when it is completed. I think that those kinds of agreements which are formal undertakings by governments with formal commitments with procedures laid down for adjudicating disputes, those kinds of international agreements will continue to be necessary and desirable.

With summits—which as you point out seem to have become institutionalized—it has not become formally institutionalized, but this will be the fourth one, and I notice already there is some commentary on the next summit——

Representative MITCHELL. It is institutionalized.

Mr. COOPER. It seems to me that the rationale for the summit is a quite different one. We do not have at the summit formal undertakings of the type that go into treaties or executive agreements. Rather, the value of the summit is to bring together what are the main—not only the major industrialized countries, but the major democracies.

These are government leaders who have similar problems in the nature of the economies, and the character of the political system. To exchange views on those common problems to see if they can reach some generalized agreement as to the course they would like the world economy to take, since these economies make up the bulk of it in term of economic share, to take in the future, and to have 2 days of discussion among them on the various economic issues, seems to be tremendously important in informing them on the problems of other countries, the limits of expectations that can be put on other countries and having them reach some kind of understanding on shared objectives.

It falls far short of the formal undertakings, but, nevertheless, it shares objectives on problems they all face.

What we have found, especially in the last 10 years, is that it is increasingly difficult for individual economies to act in isolation—and this goes even to the United States, although the problems are less acute for the United States than they are for other countries—the interconnection is just too great.

Also, I think it is useful for the heads of these countries to get some sense of one another as individuals. It makes communications between summits a lot easier. It makes it a lot easier to pick up the phone, or dash off a note, and establish a personal rapport which, in today's world of fast, immediate communications, I think should not be underestimated.

So I see the summit—or summits, to generalize—as an invitation to do these things. I see them as complementary to trade agreements and tax treaties and things of that type.

In addition, it is often the case that formal negotiations on formal agreements can get bogged down for one reason or another, and the summit can provide the occasion to sort of break bottlenecks and give impetus to negotiations that have bogged down.

Representative MITCHELL. I think since I have been in the Congress, I have been concerned about the balance-of-trade deficit. It probably got very large the first year I was here, and I don't think it has gone down significantly since.

Some people have come up with some methods by which to contain this problem. Chairman Miller of the Federal Reserve Board has argued that the imports will continue to be a much higher percentage of the U.S. GNP than they have been during the post-World War II era. He has further suggested that to pay for an enlarged import bill, we should set a goal for exports of 10 percent of GNP. The current figure is around 6 percent.

Is that goal feasible, given all of our internal problems? Is that a feasible target, 10 percent of our imports, 10 percent of GNP to exports? If it is feasible, how do we got about achieving it?

Mr. COOPER. On the feasibility of the target, it is very difficult to pronounce on that without putting a time dimension on that.

There is little doubt in my mind, given tendencies in the world economy generally, that the day will come in which we do show 10 percent of our GNP——

Representative MITCHELL. Three years, 5 years?

Mr. COOPER. But I would put it out a little beyond that.

I think to try to move from 6 percent of GNP to 10 percent, that works out numerically to an increment of about $80 billion, in any short period of time, would not represent a feasible goal, and it would put serious strain on our own policies, and a strain on the rest of the world's economies, to have a swing in a short period of time in U.S. exports of that magnitude, $80 billion.

So I think the feasibility of it depends on the time dimension one has in mind.

There is a function to be served by setting targets, even if the target is not quite feasible, and that is in a concrete way to draw attention to a problem.

Perhaps Chairman Miller's main emphasis was that, and in that respect, I share his concern. There is no doubt that we must increase our exports, perhaps not by that much that rapidly, but we must increase our exports in the near future in order to correct our trade situation.

The economic recovery, fast economic recovery, which the concerted action program I outlined in my statement, would have an important effect, not its main purpose, but an important effect is a substantial stimulus to U.S. exports.

Our exports are seriously bifurcated between agricultural products on the one hand and capital goods on the other. That means that our export performance is very sensitive to world crop conditions. When the world crops are good, our exports suffer, and vice versa. And on the other hand, our exports are very sensitive to plant and equipment expenditures elsewhere in the world, and hence to rates of growth elsewhere in the world.

With a consequent pickup in rates of growth, one would expect to see a consequential pickup in American exports. So the kind of strategy I outlined has built into it an implicit concern for American export performance. But beyond that, I think it remains true that we should do more to create export consciousness in this country.

As you may know, the President has commissioned a task force within the Government to make recommendations on improving our export conditions. That group has been working, and if I understand

correctly, the task force report will be going to the President this week with various recommendations to improve our export position.

The final point I may make on this is that, as you observed in your opening remarks, there has been a consequential change in exchange rates during the last 12 months, particularly vis-a-vis some of our important competitors in international markets, notably Japan and Germany.

One would expect, and one can see, in markets around the world, an effect from this, the competitiveness of American products is now measurably greater today than 12 months ago in various markets around the world.

Again, the lag in response to changes of this type is consequential. It is typically reckoned that it takes for manufactured goods something like 18 months for the effects of a relative price change to come into play.

But, nonetheless, one would expect to see over the next 2 years, an effect on U.S. trade, on U.S. exports and imports, from the changes in currencies that have taken place in the last 12 months.

Representative MITCHELL. That is a very long answer. Would you agree with my summary of the answer that if Mr. Miller's proposition is indeed enacted, it will be primarily symbolic in value, and non-feasible in the short term?

Mr. COOPER. Yes; I would certainly subscribe to the view that to increase our exports to 10 percent of GNP in any short term, such as 3 years, is not a feasible or desirable objective.

Representative MITCHELL. Recently the President announced a decision to sell a very small portion of U.S. gold stock. Apparently this was another quasi-symbolic gesture, a signal that we are determined to stabilize the value of the dollar.

Do you feel that either the announcement of the program, or the initial sale of this modest amount of gold has had any impact at all on the value of the dollar?

Mr. COOPER. Yes. The announcement of the sale did have some reaction in the foreign exchange markets when it took place.

I think that those gold sales have to be set in a historical context. It was not a new departure, but a continuation of a policy that was begun several years ago, in 1974, of making periodic auctions of U.S. gold into the market, partly in recognition of the fact that there is substantial gold consumption in the United States.

This is a way of satisfying it rather than through imports, but partly to make the point also that we envisage a time of a diminishing role of gold in the international monetary system.

That gold we felt would not play—and should not play—the kind of role in future international monetary arrangements that it once played. To that extent, therefore, sales into the private market of the U.S. monetary gold stock was appropriate.

There was a gap for a period of time in those sales, and the recent gold sales are really a resumption of that pattern.

I think to come directly to the resumption of those sales, it was well received, and there was some monetary effect in the exchange markets. I would not want to exagerate that.

Representative MITCHELL. It certainly did not do much in terms of the dollar and the yen.

Mr. COOPER. No effect at all on that.

Representative MITCHELL. Mr. Cooper, what in your opinion is the likelihood of the industrialized nations taking actions to combat their own internal inflation problems, actions such as export controls and unilateral import liberalization? What is the likelihood of that?

I ask it only because during the period 1973–74, as inflation really got out of hand, some economists would argue that the industrialized nations really attempted to export their inflation problems. I would like to get your reaction, one, to the likelihood of that happening again; and two, has the international economic structure changed significantly enough to prevent this exporting of inflation?

Mr. COOPER. You are asking for a forecast of future events, and I guess I cannot say that these things will not happen.

Let me just say that I think the experience that the United States had with export controls, motivated by inflationary concerns—and I refer specifically to the soybean embargo in 1973, that type of thing—it was a very chastening experience for us.

I would hope that we and other countries would learn from that. In the first place, it came home dramatically that there was exportation of a problem, because we created a shortage elsewhere in the world, and that put prices up very dramatically in countries that depended on our products.

Second, it established a reputation, to continue to focus on the example, as an unreliable source of supply. In our particular case, the Japanese were very much aggrieved. They are heavy users of soybeans, and since that time they have invested heavily in soybeans in Brazil, and now they have shifted to Brazil as a major supplier of soybeans.

From a point of view other than the short range, it was very undesirable. I certainly hope we can learn from that, that in today's world this is not an appropriate action for combating inflation.

You asked also about unilateral reductions of barriers to trade. That I see more prospect and more promise in. There has been occasion, a number of major countries in particular since the early 1970's, have from time to time reduced their barriers to trade unilaterally in order to reduce inflationary pressure domestically. Japan in 1972 had a major reduction in trade barriers. We are in somewhat of a paradoxical position at the moment, in the middle of trade negotiations countries are reluctant to lower their trade barriers unilaterally because they feel they are giving away bargaining chips.

But, nonetheless, where there are consequential trade barriers, lowering them can be a help in fighting inflation. Certainly we have made the point to the Japanese that one of the positive features of reducing their barriers to our agricultural products, for example, is that it will help to combat inflation. The same goes for the United States where we have barriers, and for other countries.

Representative MITCHELL. Let me say at this point that there are numerous other questions, and you have to leave at 10:30. Obviously, we want to accommodate you.

I have just one other question before you leave. Many economists argue that central to American economic recovery is the necessity for Germany and Japan to stimulate their own economies. I think it is

rather well known that these countries have been somewhat reluctant for fear of fanning the fires of inflation within their own country.

What prospect do you see for this to happen, for both Germany and Japan to stimulate their economies, the assumption being that if indeed this happens it helps America achieve a better recovery, and a better rate of economic growth; and, indeed, it would contribute to the well-being of the international economy.

What prospect is there for that happening?

Mr. COOPER. I think we have to recognize at the outset that while what I said earlier is true, that there is a strong international interest, nonetheless, on matters of this type, they are still primarily, overwhelmingly, matters of domestic economic policy, as they are in this country.

Part of our effort in the summit last year, in the continuing discussions we had with these countries, is to make clear the interdependence of markets. As you probably know, the Japanese Prime Minister, earlier in the year, set a target for economic growth in Japan of 7 percent. That seems to us a desirable target for economic growth during the current Japanese fiscal year.

The question now is, if there is enough pressure now in the Japanese economy to achieve that 7-percent growth. They are examining that. They have prepared a supplementary budget, should it be needed. The judgment on whether it should be needed must be a Japanese judgment.

So we express interest in the Japanese economy. As far as Germany is concerned, while there is no formal target for growth, the Germans have, over the course of the last 18 months, taken a number of actions to increase growth in their economy; and at present there is a lot of debate going on in Germany on the desirability of a tax cut of consequential size, in order to provide more impetus to growth.

While no firm decisions have been taken, I would not be surprised to see the German Government decide on a tax cut in the near future in order to give greater impetus to their economy.

Representative MITCHELL. A tax cut debate in Germany is not nearly as needed as one in our country.

I am delighted Senator Javits has joined us.

Senator JAVITS. Mr. Cooper, how much time do you have? 10 minutes?

Mr. COOPER. Yes.

Senator JAVITS. I gathered you had to leave.

You know that I am interested in Senate Resolution 440, so it makes it easier to ask questions.

I have just run through your statement, and would like to report to our committee that the Foreign Relations Committee has reported Senate Resolution 440. That resolution emphasizes what you have said in your statement, "He will be making the case that by acting together rather than in isolation, countries can increase the effectiveness of their individual actions."

The resolution definitely calls for collegial action on the part of the summit countries, and emphasizes their interdependence and the fact that action should be taken multilaterally.

You would agree with that?

Mr. COOPER. Yes, entirely.

Senator JAVITS. I am hoping we can get that point across to the majority leader today or tomorrow. I would greatly appreciate it if you could handle what the State Department needs to do to advise the majority leader that Senate Resolution 440 is helpful to the President, and therefore the President should have it before he goes to the summit.

Would you try to do that?

Second, I like very much what you say again, "The need for actions by countries which are growing slowly and have strong balance-of-payments positions to grow faster."

Is the President prepared to make any proposals at the summit, or do we know of any proposals that ought to be made? For example, will Prime Minister Callaghan, who has considered this same question, request some kind of growth fund or other effort to accelerate the development of countries? Will they work with us on patterns which will assure assistance to help solve the international economic problems of the world?

Mr. COOPER. There will certainly be what I would call a general discussion, as opposed to a particular proposal, not only among the participants at the summit, but between them and the other countries, the developing world and the nonindustralized countries.

In those other countries, it is recognized that it is of great significance and importance to the major industrialized countries. What will be done will be sort of a discussion. I am not aware of any concrete proposals that will be put forth. That is, we have not been officially notified of any concrete proposal that will be put forth at the summit, although we have seen in the press—but we have had no advance notice along these lines.

Senator JAVITS. I am sure you know that I have put forth a proposition for a growth development fund, or investment fund, to work with those who will work with us along the principle which we espoused in the Marshall plan of the late 1940's, a fund which would come to $25 billion—$5 billion a year for 5 years—in order to obtain this result. I am very interested to know what you say about the macroeconomic strategies as you see it.

Let me just question you briefly on that.

"It has two interlocking aspects, appropriate demand management policies in different countries"; this is one aspect. I assume by that you mean this problem of energy conservation and the inflationary impact of too many dollars chasing too few goods and so on.

Am I correct?

Mr. COOPER. And beyond that, one of the troubling features in today's world is that outside the United States, in industrialized nations, unemployment is at an alltime high, and private investment has no push to it at all.

I mean to encompass in that actions which would stimulate demand where that can be done without risking impetus to inflation.

Senator JAVITS. Good, we see eye to eye on that. As for the next one, "policies to encourage resources to respond to market forces to insure appropriate growth of supply," do you mean the creation of additional markets to those we now enjoy for the industrialized products of the industrialized world, which would include developing countries which are coming along to industrialization?

Mr. COOPER. That is a very general formulation of what I said. But what I was referring to principally there was—has a negative side to it; that is, the tendency that we note in many other countries to substitute government direction for market forces in the management of supply at the sectoral level. Government directives of various kinds, and so on. We are concerned about a process by which our private enterprises, free enterprise and mixed enterprise, are becoming more rigidified, which will store up trouble for the future, because you get locked into the patterns of supply which were appropriate at one period, but which are totally inappropriate at a future time.

So this passage really refers to an attempt which we are making, mainly through the OSCD, and it will be taken up somewhat at the summit to exercise restraint in government interference at the sectoral level in ways that rigidify the economies. We are looking forward toward positive adjustment policies, policies to facilitate change, rather than negative policies which freeze any given pattern of production in an unemployment mode.

Senator JAVITS. The reason I interpreted that statement as I did resulted from what follows, which is again something you and I see eye to eye on. You said, "The results suggest that growth outside the United States could be substantially higher without raising inflation rates very much. Further, a notable aspect is that in most cases the pattern of international payments imbalances would be improved somewhat." Which is why I interpreted your statement as I did. I gather this is the policy which our country will pursue.

Mr. COOPER. Yes; those particular sentences refer to an appendix appended to my statement, which is purely illustrative. This is not a policy plan, but it is just, what if the countries listed under item (*a*) had introduced some additional stimulus in January of 1978?

What would that have done to their growth rates in 1978 and 1979, compared with projections of what they otherwise would have been, and what would that in turn have done to their trade balances?

As you can see in the second column, matching up against existing trade balances, in all cases there is an improvement. There is an improvement in the United States, which is at a deficit but a deterioration in Germany, which is at a surplus. More appears, there is a slight reduction for Japan, which is in surplus, so that by and large the changes are going in the right direction, and moving back toward payment balances, or toward diminution of imbalances—by acting together, you get these interacting effects which are helpful.

Senator JAVITS. Taking my cue from your statement, regarding the economic discussions with the developing countries and the weak position of the President—because we are dragging our feet on the energy bill and the administration's bill for foreign aid.

I am hoping for a growth fund which will be an investment fund similar to the Marshall plan and will be repayable with interest, as indeed, a great deal of Marshall plan assistance was.

I have one other question before I finish.

With regard to energy, does the administration clearly realize that, while the Senate—over my own negative vote—has deprived the President of the opportunity to at least have in his hands the export card, he does have in his hand the quantity limitation on imports? Is the

administration cognizant of that, and is he taking this limitation with him to Geneva?

Mr. COOPER. Yes; obviously, we tread on weak ground, given the vote in the Senate recently. As I said before you came in, to Congressman Mitchell, the President does feel somewhat inhibited in going to the summit in this area, but he does not feel crippled, or totally empty of items.

We would prefer not at the summit to get into details of how exactly things might be done, but he does not feel totally crippled at the present time.

Senator JAVITS. May I make one more point? It is one thing to come abstractly and say, I will put on an import fee. However, it is another thing to have whatever is agreed on as part of a package in which we give and receive. This is what I am driving at: I think the Senate vote would have been very different if it had been considered as part of a deal in which we gave and we received. Looking solely at the interests of my State on that question, I could easily have opposed the President because New York would suffer from an import fee; however, I voted the other way.

The broader relationship of the economic situation of my State, which is intimately linked with the economic situation of our country, made it decisive for me and Senator Moynihan to vote the way we did.

Mr. COOPER. I take much comfort from what you say.

Senator JAVITS. Thank you for being so accommodating.

Representative MITCHELL. Thank you for being with us. We appreciate it.

Our next witnesses are Mr. E. M. Bernstein, of the consulting firm in Washington; Mr. John Norris, of Chase Econometrics; and Mr. David Ranson, of the H. C. Wainwright Co.

Gentlemen, welcome. Thank you for being here. I don't know what kind of time constraints you are under. Unless there is any particular problem, we will start with the witness on my left, Mr. Bernstein.

Is there any objection to that? Fine. We have a copy of your prepared statement which was just delivered to us and the entire statement will be included in the record. Perhaps in the interest of time, you would just summarize.

STATEMENT OF EDWARD M. BERNSTEIN, CONSULTANT, WASHINGTON, D.C.

Mr. BERNSTEIN. Thank you.

I will summarize my prepared statement. There is no need to read it.

The deterioration of the international payments position of the United States during the past 2 years has held down output and employment; caused a sharp depreciation of the dollar; and aggravated inflation. If we look at the current account of the United States in table 1 of my prepared statement, which summarizes the main items from 1975 to 1978, you will see that the balance on our current account, by the new definition, deteriorated from a surplus of $18.4 billion in 1975 to a deficit of $15.2 billion in 1977.

In the first quarter of 1978, the current account deficit, including retained earnings as part of our receipts, was running at an annual

rate of $21 billion. If you take the peak of the payments position in the fourth quarter of 1975, and compare that with the first quarter of 1978, there is a deterioration of over $50 billion a year in the current account position of the United States.

Nearly all of that—in fact, all of it—is in the trade deficit. It shifted from a surplus of $9 billion in 1975 to a deficit of $31 billion in 1977. In the first quarter of 1978, the trade deficit was running at an annual rate of $45 billion.

To see what effect this has had on our output, you start with this simple formula: Take the gross national product, and subtract from that net exports of goods and services. You see net exports of goods and services under the title, "Balance goods and services" in table 1 of my prepared statement.

When you have done that, the rest represents domestic demand. If in the United States, the GNP had increased as much as domestic demand, then the GNP in 1977, for the year, would have been 2 percent higher in current dollars, and 1.2 percent higher in constant dollars, than it actually was.

If you compare the peak quarter to the last quarter, the difference is 3.6 percent in current dollars, and 1.8 percent in constant dollars. This is an indication of how significant the deterioration in our international payments position has been for the growth of our economy.

The behavior of our exchange rates does not always follow a rational pattern. For example, in the first quarter of 1977, when we were moving to a new level of trade deficit, from $4 billion to $7 billion a year a quarter, the dollar suddenly became very strong.

It became very strong, because in Europe people were afraid of the political situation. It was said that Italy was on the verge of communism and that the French would be after their election. And besides, no country was able to recover from the recession except the United States. And the London Economist said there is no substitute for having assets in the United States.

The consequence was that just as the trade deficit was jumping, almost doubling, to an intolerably higher level, the dollar appreciated against the Swiss franc, the D-mark, and other currencies, but not against the yen.

Since March 1977, the dollar has depreciated considerably. Most of the depreciation occurred in the 6 months between the end of December 1977 and the end of March 1978.

In these two quarters, the average depreciation against the currencies of the Group of Ten, and Switzerland—these are the big 10 industrial countries—weighted by their exports, was 9.2 percent.

Of course, the decline against individual currencies was very much bigger, especially against the yen, the Swiss franc, and the D-mark.

In fact, the only reason it averaged only 9.2 percent was that the dollar appreciated relative to the Canadian dollar.

All of this has an effect on inflation in the United States. If the effect of inflation were merely through the higher prices of the imports from these big industrial countries, it would not be of great consequence for the price index.

For one thing, the retail prices in the United States would not rise as much as the appreciation of the yen and the D-mark. That is be-

cause the price in dollars rises only in proportion to the yen and D-mark content of the goods sold.

That means that the raw materials, which are dollar goods, the shipping, which is a dollar cost, the retailing in the United States, these costs do not rise any more than our own inflation. That part of the price does not rise with the depreciation of the dollar relative to the D-mark and the yen.

But as our own manufacturers are hard pressed by import competition, they may take this as an opportune time to raise their prices to get back what they say is a reasonable profit margin. The prices of raw materials and foodstuffs are also affected by the depreciation of the dollar. So we have a very considerable rise in prices directly, before any repercussions in the United States, as a consequence of the depreciation of the dollar.

Finally, we have to recognize that in the United States, informally, and in some cases formally, there is a link between the behavior of wages, and the behavior of the Consumer Price Index. So if in fact we now raise wages to offset the deterioration in the real income of workers as a consequence of depreciation of the dollars, then the impact on our inflation is enormous.

If we could somehow improve our trade position, it would have a salutary effect on our economy in almost every respect. Of course, everybody is troubled about our deficits. The Europeans and the Japanese say it is all due to our excessive consumption of oil. We say it is due to the fact that they do not want to expand their economies. They say that their surplus is the reward, a well-earned reward, for a conservative inflation policy, and for productive efficiency. They advise us to follow similar policies.

Of course, all of these things do enter into the deterioration of the U.S. trade balance. I do not want to underestimate the significance of the big imports from the oil countries, but I think we must not underestimate the signficance of the very large increase in our trade deficit with the large industrial countries.

Table 2 of my prepared statement shows the trade of the United States by countries and areas, for the first quarter of 1976, the first quarter of 1977, and the first quarter of 1978. In the first quarter of 1976, we had a very strong trade position. It shifted to a trade deficit in the first quarter of 1977, and the deficit became almost intolerable in the first quarter of 1978. You will notice in the last column the change in billions of dollars in our trade position with various areas.

Between the first quarters of 1976 and 1977, you will notice that our trade deficit rose. The whole of the increase was with the oil countries and with the raw material producing countries. The trade balance of the United States with Western Europe, with Canada and Japan, was virtually the same at the beginning as at the end of the period.

Now look at the period to the first quarter of 1978. You will notice that our trade deficit with OPEC declined by $1.1 billion. Our trade balance with the other raw material producing countries improved very slightly. On the other hand our trade balance deteriorated by $2.3 billion with Western Europe, by a billion dollars with Canada, and by $2 billion with Japan.

As a matter of fact, in the first quarter of 1978, our current account deficit with Japan was about $3.4 billion and it was rapidly approach-

ing our $3.5 billion current account deficit with OPEC. So the argument that our payments difficulties are all due to oil imports is not correct.

I don't agree with our Government experts on why our trade balance with the industrial countries has deteriorated so much, so quickly. But I do think they are right in emphasizing the proposition that in the past year our real difficulties have arisen from our trade with Western Europe and Japan.

As you know, the favorite argument is that this is due to the differential rate of expansion in the United States, and in Western Europe and Japan. Between the United States, and Japan, the difference is not overwhelming; between the United States and Germany, it is considerable.

We have had no increase in our exports to Western Europe and Japan. You will notice that in fact they are down by about 1 percent. That is a comparison of exports in 1977 with exports in 1978, both in first quarter. I think that could be said to a considerable extent to be due to the fact that their economies have lagged in the recovery. They have high levels of unemployment by their own previous standards. They have very low levels of investment by their own previous standards.

On the other hand, I don't see how you can explain an increase of about 42 or 43 percent in our imports from Western Europe and Japan in the last four quarters by saying that it is due to the fact that output in the United States grew by 10 percent plus in current dollars.

The truth of the matter is that if you compare the increase of our imports of goods from Western Europe and Japan with the increase in the goods output of the United States, the increase was six times as great in buying goods from them as in producing goods for ourselves. This is in percentage terms.

I think you have to explain this big increase in our imports on a price basis. Furthermore, the growth of our economy, and the growth of their economy, ought to have only marginal effects on the increase of exports to third countries, say in Latin America, in Asia, and Africa as compared to ours.

But they have done twice as well as we, if not better, in these other regions, some of them closely tied to the United States in currency arrangements. This competition is between the United States on the one hand, and Western Europe and Japan on the other, in markets where neither should have any advantage except through prices.

My own conclusion then is that the main explanation of our large trade deficit is that we have lost price competitiveness. I don't have very much hope that the Western European countries and Japan will do very much to speed the rate of growth, certainly not while they have the big trade surplus with us.

Their trade surplus with us is, in effect, a substitute for doing more to increase domestic demand. Their output can increase with less increase in domestic demand because there is a big increase in foreign demand. We, on the other hand, have had to take measures like the tax reduction of 1977, which, by the way, about matched the $18 billion deterioration in our trade balance, and another tax reduction proposed at the beginning of the year which would have matched the $22 billion deterioration in our trade balance in 1977. As long as we have big trade

deficits, it will always seem that we cannot take adequate steps to reduce the budget deficit.

So here we have a group of countries that are, in fact, the ultimate beneficiaries of our expansionary policies through their increased exports to the United States. I think the best way to get them to do more in the way of domestic measures is to take away that generous help they have been getting through the trade deficit of the United States.

I do hope that more can be done on the behavior of exchange rates. I will not go into the question of whether or not the behavior of exchange rates has been rational. It has not been rational at all times. It was rational from the first quarter of 1977 to the end of 1977. The fall of the dollar may have been a bit too much in the first quarter of 1978.

It is strange that the trade deficit of the United States got worse in the fourth quarter of last year, and in the first quarter of this year, at the very time when the dollar depreciated most against the currencies of the countries with whom we compete, not only in this country, but in all other markets.

I think in part this was due to the leads and lags in trade. That is to say, in Germany and Japan, they were increasing their exports to the United States, say, Volkswagens and Datsuns, not because they were trying to avoid the effect of the depreciation of the dollar on their receipts in D-marks and yen. They wanted to get these goods through U.S. customs and be valued at a higher exchange rate for the dollar, so that if their prices do not rise as much as some people expect, it would not look like dumping. The same thing was true of imports. They reduced their imports from us compared with a year earlier.

If the recent increase in the deficit is due to the leads and lags in trade, then I would expect a considerable improvement later this year. Some of the increased imports went into inventories. They will be sold more slowly in the future. That is why I think our imports of manufactured goods will increase very little, if at all. On the other side, I don't expect we will have a big increase in our exports to the industrial countries. The truth of the matter is that these countries are far more reluctant to take imports from us than we are to take imports from them.

You will find in my prepared statement a quotation from an interview with a Japanese—I think the Minister of Agriculture—published in Washington by the U.S.-Japan Trade Council He was asked about the restrictions on imports of oranges from the United States. He said, "Citrus fruitgrowers are terribly upset at the prospect that they will have to cut their own mikan trees while the Japanese market will be flooded with foreign oranges."

It almost sounds like the president of the Iron and Steel Institute explaining why we have to keep out Japanese steel, or the complaint made by the television producers that they were being swamped with color television sets from Japan.

I don't think we will get a large increase in exports. My hope is that the big change in the trade deficit will come from virtually no growth in our imports, and perhaps even a decline for a few months.

I want to wind up with the following observation: We are being told everywhere that the United States is the prime mover in the world economy, and that our policies, our trade and so forth, will set the standards for the world.

I am perfectly willing for the United States to have as liberal a trade policy as any country, provided the behavior of fluctuating exchange rates is conducive toward restoring a proper pattern of international payments.

But we must consider what we are going to do, if, for example, the growth of the United States slows and our trade balance does not get better.

I don't think that the United States is going to be willing to absorb this large trade deficit when output is growing at less than 3 percent, though it was willing to absorb it when output was growing at above 5 percent.

To be frank, I don't believe that the argument for free trade policies, at least on the tariff side, has a sound economic foundation under present conditions. I am talking as a clasical free trade economist now.

In a world in which exchange rates can rise and fall by 15 or 20 percent, in the course of several months, then one thing is certain: Either the dollar was overvalued at the beginning of the period or undervalued at the end, and the yen and the D-mark were undervalued at the beginning or overvalued at the end.

There is no basis for arguing that free trade gives the maximum gain from international trade when exchange rates fluctuate so much in such a short time. When the dollar is undervalued we are giving a bounty on exports and putting a penalty on imports. When the dollar is overvalued, you are putting a tax on exports, and giving a bounty on imports.

I don't think we can argue that free trade maximizes benefits under those circumstances. In fact, I think a uniform tariff of about 10 percent would be much better. It would not do much harm to advantageous trade, and it would help in avoiding some of the disruptions caused by uneconomic trade.

Mind you, in my opinion, the Europeans and the Japanese owe us a lot of unilateral reduction in trade barriers, not only on our agricultural products, which we keep hearing about, but even on our manufacturing goods.

The prepared statement of Mr. Bernstein follows:]

PREPARED STATEMENT OF EDWARD M. BERNSTEIN

The deterioration of the international payments position of the United States during the past two years has held down output and employment, caused a sharp depreciation of the dollar, and aggravated the inflation. Between 1975 and 1977 the balance on current account shifted from a surplus of $18.4 billion to a deficit of $15.2 billion, and in the first quarter of 1978 the deficit was at an annual rate of $27.8 billion. From the high in the fourth quarter of 1975 to the low in the first quarter of 1978, the balance on current account fell by nearly $50 billion a year. These figures are based on the new presentation of the balance of payments in which reinvested earnings of incorporated affiliates of U.S. and foreign enterprises are included in receipts and payments of investment income and in the outflow and inflow of U.S. and foreign capital for direct investment.

The deterioration of the balance on current account was entirely due to the shift in the trade balance from a surplus of $9.0 billion in 1975 to a deficit of $31.1 billion in 1977. In the first quarter of 1978, the trade deficit rose further to $11.2

billion—that is, at an annual rate of $44.8 billion. From the high in the second quarter of 1975 to the low in the first quarter of 1978, the trade balance fell at an annual rate of over $52 billion. Receipts from other current transactions increased far more than payments. Nevertheless, the large and rapid change in the balance on current account inevitably had widespread consequences for the U.S. economy and the international monetary system.

The enormous deficit on goods and services held down the growth of output and employment. If output had increased as much as domestic demand between 1975 and 1977, the GNP last year would have been 2.0 per cent higher in current dollars and 1.2 per cent higher in constant (1972) dollars than it actually was. Measured from the peak in the second quarter of 1975 to the nadir in the first quarter of 1978, the fall in net exports of goods and services reduced the increase of the GNP by 3.6 per cent in current dollars and by 1.8 per cent in constant (1972) dollars. The surplus on goods and services in 1975 ($23.1 billion) was much too high to be acceptable to the rest of the world. On the other hand, the deficit in 1977 ($10.5 billion) and even more in the first quarter of 1978 (at an annual rate of $22.8 billion) is a severe burden for the United States and a major source of disorder in the international monetary system.

When the Bretton Woods system was abandoned in March 1973, it was hoped that with floating exchange rates, balance of payments adjustment would be achieved automatically by small and gradual changes in exchange rates. In fact, fluctuations in the dollar exchange rates for the currencies in the Group of Ten and Switzerland have been very large and at times they have been accompanied by massive shifts of funds from one financial center to another that have not been different from the exchange crises under the system of fixed parities. Most recently, in the six months from the end of September 1977 to the end of March 1978, the dollar depreciated by an average of 9.2 per cent against the currencies of the Group of Ten and Swizerland, weighted by their export trade in 1977. The very sharp fall in the foreign exchange value of the dollar in the fourth quarter of 1977 and the first quarter of 1978 did not prevent the trade deficit from becoming much worse, atlhough its corrective effect may be merely delayed.

TABLE 1.—SUMMARY OF U.S. INTERNATIONAL TRANSACTIONS ON CURRENT ACCOUNT, 1975-78

[In millions of dollars, seasonally adjusted]

	Exports	Imports	Trade balance	Investment income receipts	Investment income payments	Other services receipts	Other services payments	Balance goods, services	Unilateral transfer	Balance on current account
1975	197,088	−98,041	9,047	25,359	−12,546	23,208	−22,008	23,060	−4,615	18,445
1976	114,694	−124,047	−9,343	29,244	−13,311	27,336	−24,555	9,361	−5,022	4,339
1977	120,585	−151,644	−31,059	32,100	−14,393	30,529	−27,690	−10,514	−4,708	−15,221
1975:										
1	27,018	−25,561	1,457	6,112	−3,237	5,605	−5,577	4,360	−1,193	3,167
2	25,851	−22,566	3,285	6,003	−3,143	5,563	−5,316	6,392	−1,112	5,280
3	26,562	−24,483	2,079	6,360	−3,212	5,822	−5,371	5,678	−1,070	4,608
4	27,657	−25,431	2,226	6,884	−2,973	6,219	−5,727	6,629	−1,241	5,388
1976:										
1	27,001	−28,352	−1,351	7,027	−3,405	6,347	−5,887	2,731	−1,028	1,703
2	28,380	−29,963	−1,583	7,369	−3,332	6,700	−5,973	3,181	−1 040	2,141
3	29,602	−32,418	−2,816	7,428	−3,293	7,130	−6,222	2,227	−1,908	319
4	29,711	−33,314	−3,603	7,420	−3,281	7,160	−6,473	1,223	−1,047	176
1977:										
1	29,477	−36,495	−7,018	7,796	−3,197	7,478	−6,681	−1,623	−1,126	−2,749
2	30,638	−37,259	−6,621	8,088	−3,601	7,559	−6,852	−1,427	−1,243	−2,670
3	31,013	−38,263	−7,250	8,220	−3,610	7,902	−6,852	−1,591	−1,277	−2,868
4	29,457	−39,627	−10,170	7,997	−4,185	7,592	−7,105	−5,870	−1,064	−6,934
1978: 1	30,664	−41,865	−11,201	9,432	−4,665	8,041	−7,306	−5,700	−1,254	−6,954

Prices and exchange rates tend to adjust to each other. Usually this occurs through changes in exchange rates in response to differential rates of inflation. Thus, if prices and costs are rising by 7 percent a year in the United States and by 2 percent in Germany, the dollar should depreciate on this account by about 5 percent a year relative to the D-mark. If other factors, however, result in a larger depreciation of the dollar, U.S. prices will tend to rise further in response to the lower foreign exchange value of the dollar. Most directly, this will occur in the prices of goods imported from the countries whose currencies appreciated. Even then, the rise in the dollar prices of their exports to the United States will

not be proportionate with the appreciation of their currencies. It will be held down by the dollar content of these goods, including raw materials, shipping costs, and marketing costs in the United States.

In 1977, slightly less than half of U.S. imports were from the Group of Ten and Switzerland, and the import-weighted depreciation of the dollar in terms of their currencies was 6.3 percent in the six months to March 1978. If this were the sole price effect of the depreciation of the dollar, it would have added very little to the recent rate of inflation. Unfortunately, the price effects are wider. Prices of U.S. manufactured goods held down by import competition may be raised when the dollar depreciates. In addition, a depreciation of the dollar relative to the currencies of the other industrial countries will raise the dollar prices of foodstuffs and raw materials, those which the United States exports as well as those it imports. Finally, if wages are increased in response to the rise of consumer prices, the ultimate effect of the depreciation would be to accelerate the inflation without correcting the balance of payments.

The members of the International Monetary Fund must face the fact that the adjustment process has not worked as intended. One reason is that too much reliance has been placed on the automatic corrective effect of floating exchange rates. Neither the United States nor the surplus countries have followed policies diretced to restoring a better pattern of payments. Everyone blames the United States for failing to reduce its oil imports, and that is a substantial source of the trade deficit. The United States says that the large increase in the trade deficit with the non-oil countries is primarily due to the failure of Japan, Germany and other surplus countries to expand their economies at a more rapid rate. As for their own surplus, these countries justify it as the well-earned reward for their success in holding down costs and increasing productive efficiency—and they urge the United States to match them in this respect.

There is some merit in all of these arguments, although they do not explain why the trade balance depreciated so much concomitantly with such a large depreciation of the dollar. It may help to look at the changes in the regional pattern of the trade balance over the past two years. From the first quarter of 1976 to the first quarter of 1977, the trade deficit increased from $1.4 billion to $7 billion. The balance with Western Europe, Canada and Japan was unchanged, with a surplus of about $600 million in both periods. On the other hand, the deficit with OPEC increased from $3.2 billion to $6 billion and the trade balance with other countries—nearly all producers of basic commodities—shifted from a surplus of $1.3 billion to a deficit of $1.6 billion. It is apparent that the increase in the deficit over the year from the first quarter of 1976 to the first quarter of 1977 was entirely due to the very large increase of imports from OPEC (55.4 percent) and from the other countries producing basic commodities (34.1 percent).

TABLE 2.—U.S. TRADE BY COUNTRIES AND AREAS, 1ST QUARTER OF 1976, 1977, AND 1978

[In billions of dollars]

	1976–1			1977–1			1978–1			Change to—	
	Export	Import	Balance	Export	Import	Balance	Export	Import	Balance	1977–1	1978–1
Total	27.00	28.35	−1.35	29.48	36.50	−7.02	30.66	41.87	−11.20	−5.67	−4.18
Western Europe	7.07	5.53	1.54	8.49	6.42	2.06	8.54	8.76	−.22	.53	−2.28
Canada	6.44	6.11	.34	7.02	7.21	−.19	6.96	8.14	−1.18	−.53	−.98
Japan	2.30	3.56	−1.26	2.71	3.98	−1.27	2.53	5.84	−3.31	−.01	−2.04
OPEC	2.57	5.79	−3.23	3.03	9.00	−5.97	3.06	7.97	−4.88	−2.75	1.10
Others[1]	8.63	7.37	1.26	8.24	9.88	−1.65	9.58	11.20	−1.62	−2.91	.03

[1] Includes the seasonal adjustment discrepancy.

The situation was quite different in the past year. The trade deficit increased further by $4.2 billion to $11.2 billion in the first quarter of 1978. The deficit with OPEC was reduced by $1.1 billion as imports fell by 11.9 percent. The deficit with other countries, mainly the producers of basic commodities, was virtually unchanged as U.S. exports increased slightly more than U.S. imports. By contrast, the trade balance with Western Europe deteriorated by $2.3 billion—from a surplus of $2.1 billion to a deficit of $200 million. The deficit with Canada increased by $980 million while the deficit with Japan increased

$2 billion to $3.3 billion. U.S. imports from these industrial countries increased by 28.5 percent and exports to them fell by 1 percent over this four-quarter period.

The trade deficit with OPEC has fallen steadily from the peak in the second quarter of 1977 as a result of the reduction of imports. Nevertheless, the deficit is a cause of great instability in the exchange rates for the dollar. In 1977, the U.S. current account deficit with OPEC was $16.9 billion. In addition, these countries had an inflow of $1.2 billion of U.S. capital, all from direct investment and bank credits. The total current account surplus of the oil exporting countries was about $34 billion. Thus, half of the increase of OPEC's net foreign assets last year was derived from current transactions with the United States. As members of OPEC did not want to concentrate the assets they acquired last year to this extent in dollar holdings in the United States, they transferred about $10.8 billion of their receipts from this country to other areas. This contributed to the decline of the dollar in the exchange market in 1977.

The United States must reduce its oil imports. It is equally important, however, to reduce the trade deficit with the other large surplus countries. The view that the trade surpluses of some of these industrial countries are due to the lag in their recovery is exaggerated; in my opinion. That may be one reason for the fall of 1.1 percent in U.S. exports to Western Europe and Japan between the first quarter of 1977 and the first quarter of 1978. It cannot explain why U.S. imports increased by 36.4 percent from Western Europe and by 46.7 percent from Japan in a period when U.S. output of goods increased by only 7.2 percent. Nor does it explain why the exports of Western Europe and Japan to third markets increased so much more than U.S. exports to the same areas. That must have been mainly due to their competitive advantage which had not yet been corrected by the appreciation of their currencies relative to the dollar.

If it should be true that the very large deterioration in the U.S. trade balance with Western Europe and Japan is due to high income elasticities and low price elasticities of demand for import goods, then the world economy is in serious trouble. The United States will not halt the growth of output and employment in order to reduce its trade deficit, nor will the surplus countries agree to undertake a much more rapid expansion of home demand if they believe that it will exacerbate their inflation problem. And if it should prove to be true that the depreciation of the dollar has little positive effect on the trade balance, then the United States would have surrendered real income in the form of worse terms of trade and would have added to the rise of domestic prices without achieving a significant improvement in its international payments position.

In my opinion, the price elasticities for imports and exports are sufficiently high to make floating exchange rates an effective instrument for balance of payments adjustment. It would help, of course, if changes in exchange rates were supplemented by measures to restrain the growth of domestic demand in the deficit countries without intensifying unemployment and to stimulate domestic demand in the surplus countries without aggravating inflation. Unfortunately, the experience of the past year does not provide encouragement for the view that floating exchange rates will of themselves in all circumstances result in a marked change in the trade balance. It may be, however, that the sudden increase of the U.S. trade deficit in the latter part of 1977 and early 1978 was the result of a temporary increase of imports and decreases of exports in anticipation of the depreciation of the dollar.

If so, the trade balance should improve substantially in the next few months, not merely to offset the leads and lags of trade, but in response to the large change in the dollar exchange rates for the yen and the Western European currencies. That is what I hope and think will happen.

Nevertheless, we must consider the possibility that the trade deficit will not improve much in the near future. The fact is that the exporters of some countries regard the United States as the one place in which they can sell that part of their output that cannot be absorbed by the home market. In some instances, this has been facilitated by an exchange rate policy designed to maintain an undervalued currency. It may be that even with the depreciation of the dollar, the United States will continue to be swamped by imports. This country has been very tolerent of the enormous trade deficit. It is unlikely to continue to accept such a large trade deficit with the industrial countries when the growth of output slows and the unemployment rate is no longer declining. In self-defense, it may decide to impose restrictions on the imports from some countries.

There will be complaint that the United States is abandoning the liberal policy under which world trade flourished in the postwar period. The fact is that other countries have been restricting imports from the United States and justifying it as necessary to protect their producers. The United States-Japan Trade Council recently published an interview with a high official of the Japanese Government explaining the restriction on imports of oranges from the United States. "Citrus fruit growers," he said, "are terribly upset at the prospect that they will have to cut their own milkan trees while the Japanese market will be flooded with foreign oranges." This sounds very much like the complaint of U.S. steel producers and television set manufacturers about Japan's exports to the United States.

The economic basis for a liberal trade policy cannot be the same with floating exchange rates as with fixed parties properly related to a country's prices and costs. When the exchange rates for the currencies of the largest trading countries rise or fall by 15 to 20 per cent in the course of a few months, then it would seem that one of the currencies must have been undervalued and the other overvalued either at the beginning or the end of the period. When a currency is overvalued, it results in an implicit tax on exports and an implicit bounty on imports: and when it is undervalued it results in an implicit bounty on exports and an implicit tax on imports. Under such circumstances, international trade is not the result of comparative advantage. On the contrary, at some stage it must be uneconomic and disruptive. If exchange rates are to flutuate as much and as radidly as they did in the past few months, far in excess of changes in relative prices and costs, then a uniform tariff on imports of, say, 10 percent might in fact be beneficial. It would not allow the gains from international trade to be maximized, but it would help to minimize the losses from the disruption and distortion of production caused by uneconomic trade.

Representative MITCHELL. Thank you. I would like to suggest that we hear all of the witnesses and then question. Mr. Norris, indeed we have a copy of your prepared statement which will be included in its entirety for the record.

STATEMENT OF JOHN F. NORRIS, VICE PRESIDENT FOR INTERNATIONAL ECONOMICS, CHASE ECONOMETRIC ASSOCIATES, INC., BALA-CYNWYD, PA.

Mr. NORRIS. Thank you, Congressman Mitchell. I am pleased to be here today to testify before the Joint Economic Committee.

We are living in a highly interdependent world economy, and I believe hearings of this nature are very useful in giving Members of Congress a better understanding of the role of the U.S. economy in the world marketplace.

Too often in the sixties and early seventies legislation was passed here in the United States in which little or no analysis was done with respect to its impact on the domestic economy. I think there have been great improvements in policy planning on domestic issues in recent years, and I believe we need to gain a better understanding of the impact of policy actions here in the United States on the world economy.

A lengthy prepared statement has been prepared and presented for the printed record, but time constraints prevent covering all of the details in that. Hence, I would like to summarize my prepared statement with the following comments.

As Dick Cooper has pointed out, the world economy has not performed particularly well during the past several years, either from the point of view of real growth, unemployment, or inflation. Equally important, the balance of payments adjustment process appears to have broken down, as exchange rate changes have actually widened rather than narrowed the imbalance in trade between the United States, Japan, and Germany.

While the U.S. economy rebounded handsomely from the depths of the 1974–75 recession, most major industrialized countries have continued to grow at a subpar rate that has fostered high levels of unemployment and social tensions. The lackluster growth outside the United States is evidenced by real GNP for the seven European countries in the Chase Econometrics international model system increasing by a compounded average of merely 1.4 percent since 1974, substantially below the 4.9 percent average in the 1965–73 period. The Japanese economy has fared better than the European economy, growing by an average of 4.6 percent since 1974, but a minimum of one-fourth of this increase is attributed to the surge in exports. The Canadian economy grew much faster than the U.S. economy in the late 1960's and early 1970's, but real GNP has risen by only 3.1 percent per annum during the past 3 years.

This slow growth is the major factor for the continuing high levels of unemployment in Japan, Canada, and the EEC which averaged 1.1, 0.9, and 5.8 million, respectively, during the first quarter of 1978, in each case well above the levels prevailing during the depth of the world recession.

I might add that unemployment in Japan would be substantially higher if the Japanese did away with the lifetime employment concept which has kept between 1.5 and 2 million workers on payrolls in a nonproductive fashion. Similarly, European labor markets have been buoyed up by the practice of sending guest workers back to their home countries.

In contrast, U.S. unemployment fell from a peak of 8.4 million to a current level of 5.8 million. More importantly, employment gains in the United States have been nothing short of phenomenal, rising from 84.4 million in the spring of 1975 to 94.8 million in the spring of 1978. Job creation in the United States during the past several years has been far greater than in the major industrialized countries outside the United States where employment gains have been negative or virtually nil.

Progress has been made in reducing inflation in the major trading partners of the United States, although there is still a long way to go before returning to the low inflation rate of the 1960's. Inflation on a general worldwide basis hit a peak of 14 percent in 1974, before falling to 11 percent in 1975 and 9 percent in 1976 and 1977. The improvement in European inflation was less substantial, with the consumer price index for the seven major industrialized countries increasing at a peak rate of 14 percent in 1975 followed by 11- and 12-percent increases in 1976 and 1977.

On the balance-of-payments front, most major industrialized countries outside the United States have experienced improvements from the oil-induced deficits in late 1973 and 1974. However, enormous differences still exist in the trade accounts of the major industrialized countries, with Japan and West Germany maintaining excessive surpluses and countries such as the United States incurring enormous deficits. In addition, with the exception of Japan and West Germany, the countries that have experienced improvements in their trade accounts have done so through reduced import demand rather than higher exports. Lower import demand plus the spread of protection-

ist measures have combined to cause a dramatic slow-down in growth of world trade.

If we were to place the blame for the dismal performance of the world economy in recent years on one single factor, it is the inability of world fixed investment spending to become a significant force in the world recovery. Plant and equipment spending in the United States is still 2 percent below 1973 peak levels, but this disappointing statistic pales in comparison to Japan's plant and equipment spending being also below peak levels. Similarly, investment spending in West Germany is also lower, while Italy and the United Kingdom have experienced 11- and 5-percent declines from previous peak levels. It should be noted that these declines would be even more dramatic if we exclude investment in labor saving devices. While many economists decry the business environment here in the United States, the situation abroad is much more acute; corporate profits in most industrialized nations have been pared to the bone as a result of double-digit inflation rates, confiscatory tax rates, burdensome wage costs that are unable to be passed on in the form of higher prices, and unrealistic exchange rates.

Unfortunately we do not foresee a major change in the underlying condition of the world economy over the next several years. Faster growth in the U.S. economy was once thought to be a sufficient condition for a healthy world economy. However, the experience of the past 2 years is unique in postwar history since the continued upturn in the U.S. economy occurred in the absence of even average growth in the rest of the world, particularly Western Europe. One important factor behind this unusual phenomenon is the record U.S. trade deficit that benefited mainly OPEC and Japan and to a lesser extent Western Europe, while causing nearly unprecedented instability in foreign exchange markets and a decline in world business confidence.

The U.S. economy is currently approaching a cyclical peak, and neither a soft landing nor an outright recession augurs well for those countries that shipped their excess supplies to the U.S. market.

In the absence of a buoyant U.S. economy, governments of other major industrialized countries could be expected to take up the slack in stimulating the world economy. Increased stimulus will be one major topic on the agenda at the Bonn summit later this week, but any move to reflate will be constrained by the fear of reigniting inflation, the tenuous state of trade accounts in most countries and high government deficits that limit the room to maneuver. As of today, all indications suggest that no major breakthrough will be forthcoming in the debate over who should bear the burden of providing the impetus for a return to faster growth in the world economy. The "locomotive theory" which the United States participated in, has been abandoned, only to be replaced by the "convoy approach" in which each country will implement policies that add a certain percentage to previously determined growth rates.

However, the meager incremental increases now anticipated, a maximum 0.5 percent to 1 percent of GNP, will not change the course of the world economy during the remainder of this year, although they should exert a positive influence in 1979.

Nonetheless, our forecast for the world economy suggests that the rest of the world will provide more stimulus to U.S. export demand

over the next 2 years, but a sustained period of above average growth is not expected to occur. World GNP outside the United States is projected to rise by 3.7 percent in 1978, the same as in the United States, but at least this is an improvement compared to 1977 when growth in the United States exceeded the rest of the world by 1.8 percent. The European economy is expected to experience its fifth consecutive year of recessionary conditions in 1978 when real GNP is expected to rise by a meager 2.7 percent, only slightly better than the 2.1 percent upturn in 1977. The fiscal stimulus anticipated to be announced at the Bonn summit should cause European GNP to grow at a faster, but below equilibrium rate of 3.6 percent in 1979, followed by 3.5 percent increases in 1980 and 1981. The Japanese economy will experience the highest growth among the major industrialized countries in the 1978–81 period, when real GNP is forecasted to rise by 5.4 percent. In contract to the past three years when exports led the recovery, we expect the moderate 5.4 percent growth to be due mainly to continuing expansionary fiscal policies and a slight improvement in the outlook for private domestic demand; however, the resulting growth in import demand and a delay in breaking down trade barriers will not be sufficient to satisfy foreign critics, nor to return the trade account to equilibrium. The key fixed investment sector has been critically wounded by the rapid ascent of the yen and the spread of protectionist measures, and it is not until 1984 that private plant and equipment spending exceeds 1973 peak levels.

The major constraint on growth in the world economy will be the persistence of unacceptably high inflation. Most countries outside the United States experienced improvements in inflation between the two halves of 1977, but this was because of temporary factors such as the decline in the dollar that helped to lower import prices. The deceleration in inflation is also attributed to a fall in world industrial raw material prices associated with the slump in world output, the decline in food prices caused by abundant harvests on a worldwide basis, and reduced profit margins. With the exception of the recent backtracking of the dollar, each of these factors has already been reversed or will be reversed in the months ahead, which will compound the problem of the sharply higher unit labor costs experienced in most industrialized countries during the past 2 years. In fact, a number of countries, including the United States, have experienced a return to double-digit inflation levels, and no significant deceleration is anticipated for the latter half of this year. As an indication of the distance to be traveled before the major industrialized countries return to acceptable levels of inflation, we note that world and European inflation averaged 4 percent during the 1960's, a sustained period of above average real growth. This year, world and European inflation will average 7.7 percent and 9 percent respectively, improvements only when compared to the 10.7 percent and 12.3 percent averages for the 1974 to 1977 period. During the next 3 years, world and European inflation are forecast to average 8.2 percent and 10.2 percent.

The persistence of high levels of unemployment and slow growth are two important factors for our forecast of no major improvement in world trade patterns over the next several years. Special interest groups are expected to thwart the concerted effort being made at the GATT talks to effect a significant liberalization of world trade. Also,

the high levels of world unemployment will engender increased protectionist sentiment, a factor which could lead to a stalemate at the GATT talks. This anticipated slowdown in world trade will be damaging for countries heavily dependent on export growth, which in turn will contribute to lackluster growth in fixed investment spending.

Thus we are gloomily confident that world trade will not provide the much needed stimulus to the world economy over the next several years. Growth in world trade was slashed from 11 percent in 1976 to 6 percent in 1977 and a further slowdown to 3 percent is anticipated for this year, followed by only a moderate pickup to 3.8 percent in 1979 and an average of 4.3 percent in 1980 and 1981.

The imbalance in trade between Japan, Germany, and the United States is likely to continue for the next several years, the only consolation being that the surpluses of Germany and Japan are not likely to widen and the current account deficit of the United States is expected to diminish by a modest amount. Other nations such as France, Italy, and the United Kingdom are anticipated to experience a worsening trend in their external accounts over the next several years, due mainly to their overvalued exchange rates and consumption-led recoveries.

In summary, we are not very optimistic on the outlook for the world economy, nor for the outlook for the U.S. trade account. I do not agree with those who are advocating a significant import fee, either on imported oil or on goods in general. If we do have a significant drop in our imports in volume terms, we are certain to repeat the world recession of 1974 when our imports plummeted, dragging down the rest of the economies of the major industrialized world.

I feel that we must continue with our liberalized trade policies, but it is vital that the U.S. Congress implement trade legislation designed to stimulate exports rather than reduce imports. Higher export growth is the only way that we will reduce our deficit without experiencing a severe recession in the United States and the rest of the world.

I agree that the floating exchange rate system has not worked effectively over the past several years, but there is no other feasible alternative. The trade surpluses of Japan and Germany have risen concomitant with an appreciation of the Japanese yen and the deutsch mark, causing many to conclude that exchange rate changes have a perverse effect on a country's trade account. Exchange rate changes do work, but to be effective they must be followed up with appropriate monetary and fiscal policies. Without a concomitant increase in domestic demand a higher value for a currency will not lead to a reduction in a country's trade surplus. Similarly when a currency depreciates, a country will not enjoy the expected benefits unless domestic demand is reduced.

I would also like to comment on Richard Cooper's statement in the sense that he has called for higher growth with foreign economies, or has demonstrated that higher growth in the major trading partners of the United States will not lead to higher inflation.

This defies the experience of the past several years, in which each attempt to effect higher growth in Japan and Western Europe has occurred concomitantly with higher inflation. This is because profit margins have been pared to the bone, and any attempt to increase domestic demand tightens supply/demand conditions, allowing producers to increase their profit margins.

So these are the probable problems confronting the major leaders of the world attending the Bonn summit. The world economy is growing at an unacceptably slow pace and unemployment is very high. Yet there are fears over higher inflation and growth in world trade is falling instead of rising. These problems are acute for export-oriented countries, a number of which have high or overvalued currencies making it very difficult to stimulate investment. High government deficits are a serious problem in the industrialized world, particularly in Germany, France, and most of the European countries. In the case of Italy, the country is nearly bankrupt.

So we are not optimistic on the outlook for the world economy. Certainly some forceful leadership on the part of President Carter would go a long way in returning stability in world financial markets, and hopefully, that will be one of the outcomes of the Bonn summit.

This concludes my formal remarks. I am available to answer any questions on my remarks or prepared statement.

Thank you.

[The prepared statement of Mr. Norris follows:]

PREPARED STATEMENT OF JOHN F. NORRIS

WORLD INFLATION OUTLOOK

One of the key constraints on growth in the world economy during 1977 was the unacceptable high rate of inflation in the major industrialized countries. The attempt to prevent either a further rise in inflation or bring about reduction in existing high levels was an important determinant for the limited degree of fiscal stimulus provided by most governments, and in the case of France, Italy and the United Kingdom, restrictive fiscal and monetary policies were followed. However, a significant deceleration in world inflation occurred between the two halves of 1977 that continued into the early months of 1978. As shown in Table A, the most pronounced increases occurred in the United Kingdom where inflation was more than halved from 19.0 to 9.5 percent, while Italy's inflation dropped from 19.1 percent to 11.1 percent. Significant declines also took place in Gemany, Belgium and the Netherlands and France. On an aggregate basis, the weighted average of consumer prices in the seven major European countries covered in our system rose by an average of 13.3 percent in the first half of 1977 and 8.3 percent in the second half of the year. Japan's retail price inflation also dropped considerably from 10.2 percent to 2.7 percent over the same period, while Canada's improvement was less pronounced than in the rest of the major industrialized countries with a decline from 9.5 percent to 8.8 percent.

TABLE A.—INFLATION COMPARISONS[1]

	1st half 1977	2d half 1977	1st quarter 1978	2d quarter 1978
United States	8.6	4.8	7.9	9.5
Japan	10.2	2.7	0.1	7.2
Canada	9.5	8.8	8.3	9.7
United Kingdom	19.0	9.5	7.1	9.0
Germany	5.9	1.5	2.2	4.6
France	10.3	8.3	7.4	12.5
Italy	19.1	11.1	11.9	14.2
Netherlands	5.8	4.7	1.7	3.4
Belgium	7.6	5.4	4.3	2.6
Spain	26.3	28.3	17.7	18.7
Mexico	29.1	17.8	20.3	19.2
Brazil	48.0	38.2	34.1	32.0
World[2]	11.1	6.3	6.9	9.6
Europe	13.4	8.3	7.5	10.0

[1] Percent change, seasonally adjusted annual rate basis.
[2] 12 countries excluding Brazil.

The key question is whether these improvements are sustainable; if they are, then the governments of the major trading partners of the United States would be justified in increasing the amount of fiscal stimulus planned for their economies. In order to answer this question, it will be helpful to analyze the factors that caused the lowering of inflation in the major foreign countries. We first note that the sharp depreciation of the dollar against the Japanese yen and European currencies led to a slower increase or absolute decline in import prices, particularly in those countries highly dependent on imported raw materials from countries with dollar-based currencies. These figures are shown in Table B. The permanency of this factor depends partly on the degree of wage restraint; if wage gains were adjusted downward to the extent the decline in inflation in the Japanese and European economies, then the improvement would be of a longer lasting nature. Japanese labor unions appear to have exercised a modicum of wage restraint following the slowdown in inflation in 1977 since they accepted 6–7 percent increases in nominal wages during the 1978 spring labor offensive. This is not the case in the European economies where the rigidity of downward adjustments in wage gains resulted in only marginally lower wage gains last year. In fact the continuing upward trend in European wages coupled with the slower growth in output and the stickiness in labor markets caused a sharp turnaround in European unit labor costs between 1976 and 1977, as shown in Table C. Thus once the U.S. dollar begins to appreciate, or at least return to levels reached in May, the underlying cost pressures will cause an acceleration in European inflation since the lower imported inflation will not longer exert downward pressure on European prices.

TABLE B.—PRICE OF IMPORTS

[Percent change at annual rates]

	1st half 1977	2d half 1977	1st half 1978
United States	11.8	1.9	10.3
United Kingdom	11.6	1.4	6.2
Germany	4.5	−4.7	−1.1
France	9.8	0	10.4
Belgium	3.3	−7.9	1.3
Italy	19.6	2.3	18.7
Netherlands	7.6	−3.6	.5
Japan	−1.3	−5.9	−24.0
Canada	21.0	13.0	16.9
Spain	22.9	47.9	19.3
Mexico	19.5	0	11.4
Brazil	48.4	31.4	34.4

TABLE C.—UNIT LABOR COST COMPARISONS

[Percent change from previous periods]

	1976	1977
United States	2.3	6.8
United Kingdom	13.0	9.8
Germany	−3.7	3.3
France	3.9	12.2
Italy	7.7	26.7
Belgium	2.4	9.1
Netherlands	−3.3	4.6
Japan	−.3	4.6
Canada	9.8	5.8

The second factor that contributed to lower inflation in Japan and Europe in the second half of 1977 was the downturn in world industrial raw material and food prices. The decline in industrial raw material prices was closely correlated with the slump in the Japanese and European economies in the middle of 1977 and the slowdown in the U.S. economy which led to reduced demand for industrial raw materials at a time of over-supply. The decline in agricultural prices between the late spring and autumn of 1977 was directly related to the abundant harvests in the major producing countries.

Third, Japanese and European inflation was held down by producers accepting lower profit margins as higher wage costs were unable to be passed along to the retail level due to depressed levels of output and final demand.

TABLE D.—WORLD AND EUROPEAN CONSUMER PRICES

	World		Europe	
	1963=100	Percent over previous period [1]	1963=100	Percent over previous period [1]
1978:				
1	238.7	6.9	266.0	7.5
2	244.2	9.6	272.4	10.0
3	249.1	8.2	279.1	10.2
4	254.2	8.5	286.7	11.5
1979:				
1	259.8	9.0	294.6	11.4
2	265.3	8.8	302.3	10.8
3	270.7	8.3	309.8	10.4
4	276.0	8.2	317.7	10.6
1980: 1	281.6	8.3	326.1	11.0
1978	246.6	7.7	276.0	9.0
1979	267.9	8.7	306.1	10.9
1980	289.9	8.2	337.6	10.3
1981	312.6	7.8	369.6	9.5

[1] Seasonally adjusted at annual rates.

All three of these factors will be reversed in the months ahead or have already been reversed, which has contributed to higher inflation in most foreign economies. Import prices in the Western European economies have begun to turn upward due to the rally in the dollar in April and May, although some backtracking has occurred in the past several weeks. Even if the dollar fails to rebound, it is unlikely that the late 1977 and early 1978 rate of depreciation of the dollar will be repeated. The major exception is the Japanese yen, which has continued its rapid ascent against the dollar, and a further decline in Japanese import prices is inevitable. Industrial raw material prices have also rebounded by a modest amount during the past several months following the improvement in demand conditions in Japan and Europe and the rebound in the United States. In addition, there has been a pronounced turnaround in world retail food prices in recent months, partly reflecting the increased foreign grain utilization and a reduction in grain stocks in non-U.S. agricultural producing countries. A number of countries have also devalued their "green currencies," the exchange rates for agricultural trade within the EEC, and this has raised the level of retail food prices in recent months. In the case of the United States and Canada, retail food prices have risen dramatically in recent months due to below equilibrium levels of beef supplies, unusual weather patterns on the West Coast that reduced the supply of fruits and vegetables, and higher grain prices arising primarily from the U.S. government's attempt to restore agricultural incomes. Profit margins in most foreign countries will probably be raised slightly concomitantly with the improved demand conditions.

In summary, we do not think the improvements in inflation experienced in the major industrialized countries during the second half of 1977 are sustainable. In fact, there has been a distinct acceleration in world inflation during the first six months of this year. This is evidenced by the Chase Econometrics eleven country index of consumer prices which accelerated from a 5.4-percent increase in the fourth quarter of 1977 to 6.9 percent in the first quarter of this year and an estimated 9.6 percent in the second quarter. European inflation, as measured by the Chase Econometrics seven-country index, followed a similar trend, rising from 6.6 percent in the fourth quarter to 7.5 percent and 10 percent during the first two quarters of this year. In addition to the factors mentioned above, European inflation has been adversely affected by hikes in public sector charges in an attempt to generate additional revenues and reduce subsidies in an attempt to lower unacceptably large government deficits.

Our outlook for world and European inflation is not very optimistic, and we do not think that the significant deceleration experienced during the second half of 1977 will be repeated during the second half of this year. The Chase Econ-

ometrics world index is projected to taper off slightly to an average increase of 8.4 percent in the second half of this year, due largely to a slowdown in inflation in the United States, Japan and Canada. The slowdown in inflation in the United States and Japan primarily reflects the abatement of the recent sharp rise in retail food prices, which is corroborated by the decline in U.S. farm prices during the month of June. In contrast, European inflation is forecasted to continue on an upward trend in the latter half of this year, reaching an average of 10.9 percent. This reflects the absence of further decline in import prices now that the dollar appears to have stabilized, a slight improvement in supply/demand conditions, a quickening pace of wage gains and increases in public sector charges. However, the continued rise in European inflation is not uniform since it is concentrated in the United Kingdom, Italy and Spain, and to a lesser extent in Belgium and the Netherlands. French inflation, on the other hand, is expected to taper off slightly from current high levels, while Germany's inflation will continue at the 3–3.5-percent level, less than one-third the increase in the United Kingdom and one-fifth the increase in Italy. The wide difference in inflation rates between Germany, France, the United Kingdom, and Italy points out the difficulty the European governments will have in widening the present EEC snake by bringing in weaker currencies such as the French franc, the lira, and the pound sterling.

In spite of the acceleration on a quarter-to-quarter basis, the world and European indices will be up by 7.7 percent and 9.0 percent in 1978, the lowest increase since prior to the Arab oil embargo. However, world inflation will continue at an unacceptably high rate of 8.5–9.0 percent throughout 1979 followed by a slight deceleration to 8 percent in the 1980–81 period. This unwelcome trend will be influenced by moderate increases in OPEC prices beginning in early 1979 in addition to continuing upward pressure on world food and industrial raw material prices. European inflation is also forecasted to remain at the relatively high rate of 10.5–11 percent in 1979, followed by 10.3 percent and 9.5 percent increases in the 1980–81 period.

WORLD TRADE CONSIDERATIONS

A separate section in this report is devoted to the outlook for the U.S. current account balance, and in the following we present only recent and projected trends for the trade sector of major foreign industrialized economies. Similar to the constraints placed on governments by the high rate of inflation in early 1977, the reluctance to opt for higher growth was related to the desire to reduce sizable trade deficits that existed in a number of key European countries. This was most evident in the United Kingdom and Italy and to a lesser extent France where governments took restrictive measures to reduce their trade deficits which met with significant success. As shown in Table E, the U.K. trade balance reverted from a deficit of $8.5 billion (FOB–CIF) in the first half of 1977 to $4.3 billion in the second half of the year, while the Italian trade deficit was lowered from $4.1 to $0.3 billion. A less significant improvement occurred in the French trade account as the deficit was reduced from $6.3 to $4.4 billion. Some of the smaller countries covered by Chase Econometrics, such as Mexico and Brazil, were also successful in achieving improvements in their trade accounts.

TABLE E.—TRADE BALANCE (BILLIONS OF U.S. DOLLARS)

	1st half 1977	2d half 1977	1st quarter 1978	2d quarter 1978
United States	−28.7	−34.3	−44.8	−38.6
Japan	8.6	10.3	21.0	15.4
Canada	.7	1.8	3.6	.5
United Kingdom	−8.5	−4.3	−5.6	−7.4
Germany	17.5	15.5	18.2	17.3
France	−6.3	−4.4	−4.4	−4.2
Italy	−4.1	−.3	−.3	−1.1
Netherlands	−4.2	−1.4	−2.4	−2.7
Belgium	−3.2	−2.4	−2.6	−1.4
Spain	−7.4	−7.8	−6.0	−6.1
Mexico	−.5	−1.5	−1.0	−1.2
Brazil	−.1	−1.9	−1.1	−2.0

r Current prices. All are FOB–CIF except United States. Seasonally adjusted at annual rates.

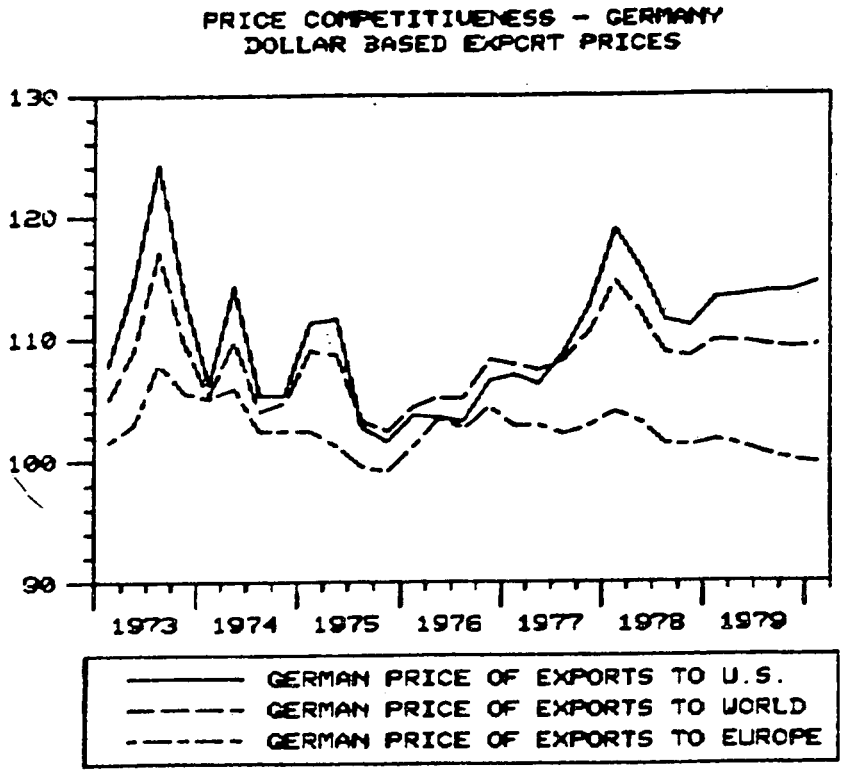
However, the improvements mentioned above were not without negative side effects since they were achieved primarily through lower imports caused by restrictive fiscal and monetary policies rather than increased exports. The significant slowdown or decline in import demand in the United Kingdom, Italy and France had a depressing effect on output and employment in other European economies and the combined multiplier effects of lower growth in exports and industrial output played an important role in the lackluster performance of the European economy in 1977 which helps to explain the poor performance in U.S. exports to Europe in 1977. The lack of a pickup in import demand in Europe, a flat trend in Japanese imports and the spread of protectionist measures were responsible for a sharp slowdown in world trade from an 11 percent increase in 1976 to 6.0 percent in 1977.

We do not think the favorable trends in the trade accounts for the United Kingdom, France and Italy will continue as industrial production in each of these countries has rebounded in recent months and inventories are being replenished, albeit at a moderate pace. This should lead to a faster growth in import demand, although the growth will stem mainly from increased demand for industrial raw materials rather than manufactured goods. Nor do we expect an improvement in export growth in these countries. since the underlying trend in inflation is substantially higher than in the rest of Europe and their currencies are currently overvalued by a substantial margin.

The more disturbing aspect of trade developments in 1977 was the inability of exchange rate charges to have the desired effect of reducing the excessive trade surplus of Germany and Japan. The German trade account balance fell slightly from $17.5 billion in the first half of 1977 to $15.5 billion in the second half of this year, but this was followed by an estimated $17.8 billion in the first half of this year. This trade data may suggest that the elasticity pessimists are winning out in the debate on the efficiency of the impact of the higher value for the DM on Germany's foreign trade. However, a closer look at constant price foreign trade data gives a somewhat different picture. Germany's export volume rose 5.2 percent in 1977, slightly below the 6.0 percent rise in world trade, implying that Germany's share of world trade decreased slightly last year. Equally important, German import demand increased 5.2 percent compared to the meager 2.6 percent upturn in domestic demand, which indicates that foreign producers made significant inroads into the German market. Our latest analysis of Germany's trade statistics show that export volume for the first six months of this year was unchanged from the latter half of 1977, surely an indication that the higher value for the DM is beginning to take effect. However, the depressed level of business activity during early 1978 caused a flattening out of import volume.

Yet a further explanation is needed for the persistence of the sizable trade surplus when measured in nominal U.S. dollars. First, approximately one-half of German exports are capital goods that have a low price elasticity. Thus the appreciation of the DM probably has had only a marginal impact on capital goods exports during the past twelve months, and export volume only held steady instead of declining during the first half of this year. This does not imply that the DM can continue to rise indefinitely, since there is some point at which the non-price factors will become secondary to price considerations. Second, the time lag between changes in price competitiveness and exports is substantial and may be as long as two years in the case of capital goods. Third, most German exports are priced in Deutschemarks, while most imports are priced in foreign currencies. This causes a higher trade surplus in U.S. dollars when the DM appreciates against the U.S. currency. Fourth, the 11-percent trade-weighted appreciation of the DM since early 1977 may appear excessive; yet when the higher inflation in most European countries is taken into account, Germany has maintained or improved its price competitiveness despite the higher value for the DM. This is not true in the case of the rise in the DM versus the U.S. dollar which has exceeded all measures of relative price competitiveness. However, a strong case for a significant appreciation of the DM relative to the dollar can be made from the bilateral trade between Germany and the United States that shows Germany's export volume shot up by 13.8 percent in 1977, while U.S. export volume fell by 6.2 percent.

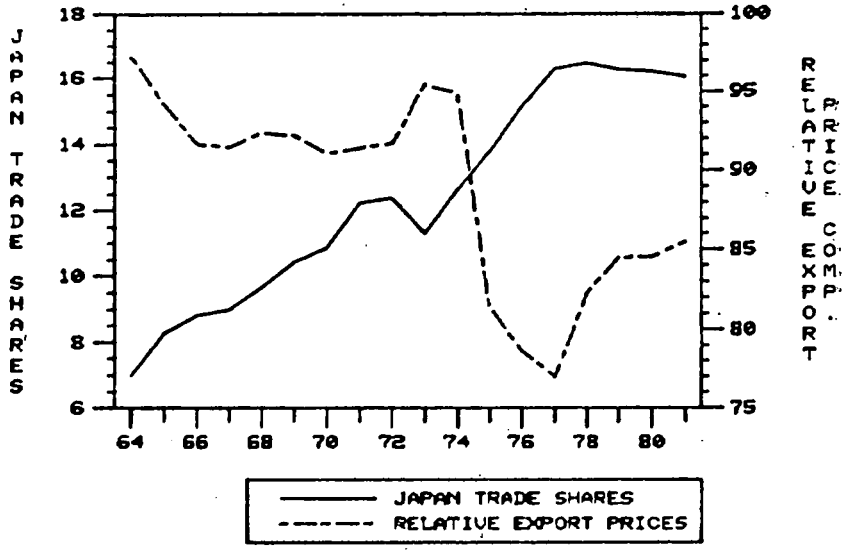
In summary. there is little doubt that Germany's foreign trade when measured in constant prices has been affected by the higher value for the DM, although the impact on export volume has been less than expected. The continuing high level of export volume plus the improvement in the terms of trade largely explain the further rise in Germany's trade surplus during the past twelve months.



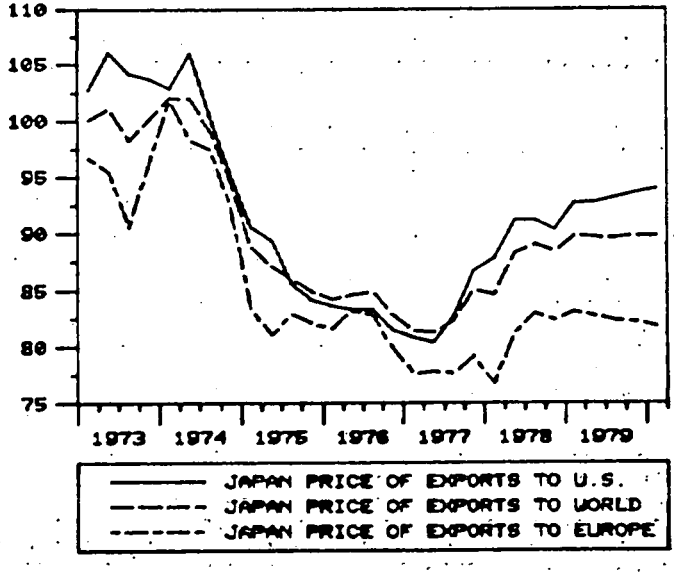
No significant change in the pattern of foreign trade is anticipated over the next 12–18 months. Germany's exports are expected to rise at a moderate pace during the latter three quarters of this year due mainly to the return to slightly faster growth in Germany's major trading partners, particularly France, the United Kingdom and Italy. However, export volume is projected to rise by only 3.4 percent on a yearly average basis, compared to the government's projection of 6–7 percent. Import demand will also continue on a steady upward trend, rising by 5.1 percent on a yearly average basis due to moderate growth in domestic demand. This results in no substantial change in the trade balance in current prices which is projected to reach $17.1 billion in 1978 on a yearly basis, or $0.6 billion higher than in 1977. Yet the $17.1 billion surplus entails a decline on a quarter-to-quarter basis from the high $18.2 billion surplus achieved in the first quarter.

The inability of exchange rate changes to have the desired effect of reducing Germany's excessive trade surplus is even more pronounced in the case of Japan. The Japanese yen appreciated from an average of 293.5 yen in 1976.4 to 237.6 yen in 1978.1 followed by a further rise to 221.0 yen in the second quarter and to a current level of 202.0 yen. Yet Japan's trade balance rose from $2.6 billion (FOB–CIF) in 1976.4 to $12.9 billion in 1977.4 and a record $21.0 billion in 1978.1. Tentative statistics for the recent quarter show a slight decline to $15.4 billion.

JAPAN TRADE SHARES AND PRICE COMPETITIVENESS



PRICE COMPETITIVENESS - JAPAN
DOLLAR BASED EXPORT PRICES



A number of factors help to explain the recent trends in Japan's trade account. First, in spite of the 31 percent appreciation of the yen, Japanese goods are still highly competitive in world markets. As shown in the accompanying graph, the ratio of Japan's export prices to export prices in the major industrialized countries has risen substantially since early 1977, but it is still well below the average for 1973–74 when Japan's current account balance was in equilibrium. Japan's export prices relative to European export prices actually declined from late 1976 through early 1978, although they increased during the second quarter and a further advance is anticipated for the remainder of this year. It should be noted that the comparison of export prices is the least favorable for Japan since other countries have held down their export prices at a time when domestic inflation was much higher. Thus if we compare Japan's export prices to consumer prices in the United States or Western Europe, Japan's price competitiveness would be even greater.

The partial adjustment of Japanese export prices to the higher value of the yen is partly explained by the sharp 17 percent drop in import prices between December 1976 and April 1978. Since raw materials account for approximately half of production costs in major industries, particularly those relying on exports, the fall in import prices has more than offset the rise in unit labor costs, and this explains the 1.5 percent decline in wholesale prices over the same period. Another factor explaining the partial adjustment of export prices to the higher value for the yen is the Japanese custom of maximizing market share as opposed to the traditional U.S. corporate goal of maximizing profits. Thus Japanese producers have accepted lower profit margins rather than relenquish their market share.

The second major factor explaining Japan's continuing large trade surplus is related to supply conditions. Japan still has a significant amount of excess capacity in key industries such as autos, iron and steel, electronics and chemicals, following the investment boom in the early 1970's. In addition, most companies in Japan still hold to the lifetime employment concept that has resulted in excess levels of employment. Thus industrial production has continued at levels that far exceed domestic demand, causing producers to export their excess capacity.

The obvious answer to the excess supply situation in Japan is a sharp turnaround in domestic demand. The Japanese government attempted to stimulate the economy during the past two quarters through expansionary fiscal and monetary policies. However, the increased government spending has been insufficient to offset the deflationary effect of the higher value for the yen. Thus, although domestic demand has risen at a moderate pace during the past two years, the growth has not been high enough to deplete inventories to levels that would cause a marked upturn in import demand. The low levels of capacity utilization will probably prevent an investment boom from occurring, a necessary condition for a return to above average growth in output and employment. Furthermore, a consumption boom can be safely ruled out since real disposable income will rise by only 4 percent this year and labor markets are expected to remain depressed.

However, this does not imply that Japan's trade surplus will continue to grow. In fact, as noted above the trade surplus is estimated to have declined from $21.0 billion in the first quarter to an estimated $15.4 billion in the second quarter. Nominal exports continued to increase, but this is because of the higher value for the yen; export volume declined at an estimated annual rate of 18 percent during the second quarter. Moreover, in contrast to the low price elasticity of German exports, Japan's exports are much more price elastic since a significant portion is composed of consumer durables. Slower growth in the U.S. economy during the latter half of this year plus orderly marketing agreements with the United States and Western Europe will also put a damper on growth in Japanese exports. On the import side, the price competitiveness of foreign goods in the Japanese market has increased substantially during the past year and one half due to the rise in the yen and lower import duties. Thus increased price competitiveness coupled with a slight pickup in plant and equipment spending and consumption expenditures and continued high rates of increase in government spending should lead to increased import demand during the second half of this year. This should cause a lower trade surplus on a quarter-to-quarter basis for the remainder of this year, but on a yearly basis Japan's trade surplus will increase by $6–7 billion compared to 1977.

On a broader basis, the slowdown in world trade that occurred in 1977 is expected to persist over the next several years. A successful conclusion of the GATT talks is a necessary condition for a return to high growth in world trade.

Yet the GATT talks have repeatedly stalled due partly to the inability of U.S. representatives to obtain easier access for U.S. agricultural goods to the Japanese and European markets. Some progress on reducing tariff and non-tariff barriers on agricultural exports to the EEC and Japan is likely to occur, however no major breakthrough is anticipated. In addition, the lowering of traiffs that will eventually emerge from the GATT talks will take place over a long period of time, and the safeguards built into the anticipated trade agreement will still make it possible for weak industries such as iron and steel and textiles to limit the free flow of goods across borders. Another sensitive area is the practice of governments providing subsidies to faltering or nationalized industries, which is another form of a non-tariff barrier. This occurs most commonly in France, the United Kingdom and Japan and we are doubtful that Germany and the United States will be able to convince other countries to curb this practice.

In the absence of a major breakthrough in trade liberalization, faster growth in world trade will have to come from a return to high growth and a reduction in unemployment in the major industrialized economies. However, as we describe in the next section, the prospects are dim for a return to higher growth and lower unemployment at least for the rest of this decade and into the early 1980's. Thus we are gloomily confident that world trade will not provide the much-needed stimulus to the world economy over the next several years. Total export volume in the twelve major industrialized countries in the Chase International Model system is expected to rise by only 3 percent in 1978, followed by slightly higher increases of 3.8 percent, 4.1 percent and 4.5 percent in the 1979–81 period.

WORLD ECONOMIC OUTLOOK

One of the key determinants of the deterioration in the U.S. trade account in 1977 was the substantially higher rate of real growth in the United States compared to the rest of the world. As shown in Table F, U.S. real GNP increased by 4.9 percent in 1977 on a yearly average basis, more than double the 2.1 percent for the seven major European economies—United Kingdom, Germany, France, Italy, Belgium, the Netherlands and Spain—covered in our work. Real GNP in Europe plus Japan, Canada, Mexico and Brazil increased at a slightly higher rate, 3.0 percent, but this was still substantially below the U.S. experience. Japan was the only country to have a higher growth rate than the United States, but at least one-third of the 6.1 percent rise in real GNP is attributed to the 11 percent gain in export of goods and services. Imports of goods and services were up by only 2 percent, implying that Japan made virtually no contribution to the world recovery last year, and its high export growth exacerbated recessionary conditions in the rest of the world. In contrast, Germany's imports of goods and services were up by 4.5 percent, substantially higher than the 2.8 percent rise in real GNP.

Thus if the U.S. trade and current account balance is to improve this year and beyond, the rest of the major industrialized countries will have to grow at a much faster pace than they did in 1977 in order to reverse the gap between growth in the United States and the rest of the world. There are tentative signs that economic activity in Western Europe and Japan improved in the first quarter, but the evidence is far from conclusive that economic activity in these areas of the world is on the verge of a sustained upturn.

TABLE F.—GROSS NATIONAL PRODUCT—CONSTANT 1972 PRICE

[Percent change from previous year]

	1976	1977	1978	1979	1980	1981
United Kingdom	3.3	0.3	2.1	2.4	3.2	3.0
Germany	4.9	2.7	2.5	3.8	3.9	3.6
France	5.2	2.9	3.8	4.2	3.8	3.8
Belgium	5.5	1.7	2.4	2.7	3.4	3.4
Italy	5.7	1.7	2.9	3.3	2.6	3.4
Netherlands	4.3	2.6	2.5	3.0	3.8	3.2
Spain	1.8	1.8	3.8	2.8	2.6	3.4
Mexico	2.0	2.8	5.9	7.1	6.0	6.9
Brazil	8.8	4.8	4.9	7.8	7.8	5.7
Japan	6.0	5.2	6.1	5.6	4.7	5.1
Canada	4.9	3.4	3.5	3.8	4.1	4.4
United States	6.0	4.9	3.7	2.8	3.1	3.5
West Europe	4.6	2.1	2.7	3.6	3.5	3.5
World less United States	5.1	3.1	3.7	4.4	4.1	4.2
World	5.5	3.9	3.7	3.7	3.7	3.9

TABLE G.—WORLD AND EUROPEAN INDUSTRIAL PRODUCTION

	World				Europe	
	1963=100	Percent over previous period	1963=100 [1]	Percent over previous period [2]	1963=100	Percent over previous period [2]
1978.1	204.1	4.7	228.1	7.3	182.6	5.4
1978.2	208.2	8.4	231.4	5.8	185.2	5.9
1978.3	210.2	3.9	233.7	4.2	187.1	4.3
1978.4	211.6	2.8	236.1	4.1	188.8	3.7
1979.1	212.9	2.5	238.6	4.4	190.4	3.3
1979.2	215.6	5.1	241.7	5.1	192.2	4.0
1979.3	217.8	4.1	244.4	4.7	194.1	3.9
1979.4	219.9	4.0	247.4	4.9	195.8	3.7
1980.1	222.2	4.3	250.1	4.5	197.8	4.0
1978	208.5	4.3	232.3	4.1	185.9	2.7
1979	216.5	3.8	243.0	4.6	193.1	3.9
1980	225.4	4.1	253.7	4.4	200.6	3.9
1981	235.9	4.7	265.8	4.8	208.4	3.9

[1] Excluding the United States.
[2] Seasonally adjusted at annual rates.

WESTERN EUROPE

We first consider the European economy, where the available data in industrial output show a turnaround in the first two quarters of the year compared to the fourth quarter. For example, the Chase Econometrics seven-country index of European industrial output increased by 5.4 percent in the first quarter compared to the 2.1 percent average decline in the latter three quarters of 1977. A further 5.9 percent rise is estimated to have occurred in the second quarter. This turnaround is partly explained by the rebuilding of inventories that were depleted in the middle two quarters of 1977. In addition, the slowing of inflation and leveling off of unemployment has led to an improvement in consumer sentiment in most countries. More expansionary fiscal policies and the generally easier credit conditions also played a role in the improvement in European economic activity in early 1978. The major laggard is investment spending, which has yet to evidence any vigor in any of the European countries. The disappointing aspect of the upturn in European output during the first half of this year is that it was centered on the United Kingdom, France, and Italy. The Germany economy was depressed in the first quarter due to abnormally cold weather and labor disputes, but available information for the second quarter shows that the economy has barely made up the ground lost in the first quarter. Since Europe has yet to experience a sustained recovery without Germany either leading the way or expanding simultaneously with the other European countries, we are forced to treat with caution the positive results of this year.

Our current outlook for the European economy for the remainder of this year and next has become slightly less optimistic in recent months, although we still think that a repeat of the slump experienced in the summer of 1977 will be averted this year. The Chase Econometrics index of European industrial output is now expected to rise by 4.3 percent in the third quarter followed by a 3.7 percent gain in the fourth quarter; the 4 percent average growth in the second half of this year is 1 percent lower than anticipated six weeks ago.

The downward revision in growth in European output during the latter half of this year stems partly from even less impressive growth in the U.S. economy than previously indicated. This is a result of the bulge in inflation in the second quarter that is expected to lead to more sluggish growth in consumer spending in the latter half of this year. The second major factor for our more pessimistic outlook for the U.S. economy in the July–December period is the reduction and postponement of the Carter fiscal package. We had originally anticipated a $25 billion tax cut would be put into effect on October 1, but this has been scaled down to $20 billion and deferred until January 1. Thus, we are still holding to our forecast that the U.S. economy will not be a major source of growth for the European economy later this year and next, a contrast to the 1977 experience when almost all European countries experienced rapid growth in exports to the United States.

In addition to slower growth to the United States, there are several factors that explain the slightly lower growth forecasted for the European economy in the second half of the year. First, the U.K. government, fearful of a run on

the £ and faced with a lower-than-anticipated current account surplus and excessive growth in the money supply, introduced a mini-budget on June 8 in which monetary policy was tightened another notch and national insurance costs to employers were raised by 2.5 percentage points effective October 1. The net effect of the new monetary and fiscal policy measures is to reduce investment spending in the short run, while raising inflation, lowering overall real growth, and reducing U.K. international price competitiveness, all of which will combine to cause a less buoyant recovery than we previously anticipated.

Second, the French government has embarked upon an ambitious program to make the French economy healthier and more competitive over the long run. Unlike most short-sighted decisions made by other European leaders in recent years, Prime Minister Barre has taken the difficult route of phasing out price controls from all industrial products between June and October, while pulling back from subsidization of inefficient nationalized or quasi-nationalized industries. These measures are bound to restore the financial health of French firms over the long term, which should lead to higher investment spending. However, they are certain to lead to higher inflation and unemployment and lower consumption in the short run, and for this reason we have lowered our outlook for French growth in the latter half of this year and all of 1979.

In summary, policy actions recently taken in France and the United Kingdom are the major contributing factors for the downward revision in our outlook for the European economy over the next 6–12 months. Lower growth in output and import demand in France and the United Kingdom will have a multiplier effect on intra-European trade, that will lead to slower growth in European output. The German government could make up for the anticipated slower growth by introducing more expansionary policies. However, the Bonn government is adamantly refusing to countenance any new spending programs, and the emphasis of any new fiscal program will be on tax reform, but this has little chance of being implemented before early next year.

Yet we are still holding to our previous forecast of no renewed downturn in European output during the second half of this year. We first note that in spite of the policy measures taken in the United Kingdom, private consumption expenditures will still grow at a reasonably moderate pace in the second half of this year as a result of the substantial nominal wage gains and personal tax cuts that have already taken place. This is a stark contrast to the first two quarters of 1977 when real incomes were squeezed and consumption expenditures plummeted. Fiscal policy in the United Kingdom has reverted from contractionary to expansionary, and local authorities and government agencies are likely to overspend this year instead of underspending as they did in 1977.

Similarly, consumption expenditures will continue on an upward trend in France, and investment spending should be given a positive boost by the election results and the improved profit picture. In addition, domestic demand in Germany appears to be on the rebound as evidence by the strong upturn in domestic orders in April, which should provide the basis for positive growth in industrial output in the months ahead. We also expect that the Italian economy will make a positive contribution to overall growth in the European economy in the second half of this year, partly as a result of more bullish consumer spending and investment incentives. This will be in contrast to the mid-1977 experience when industrial output plummeted, and import demand declined sharply. This leading to lower exports and industrial output in other European countries. Finally, we are doubtful that inventories will be liquidated in the later half of 1978 as they were in 1977. Inventory accumulation has been a positive source of growth in recent months, but producers have been cautious in rebuilding stocks so that inventory/sales ratios are currently estimated to be only normal rather than excessive as they were in early 1977.

Nonetheless, we do not think the European economy is on the verge of a sustained period of above-equilibrium growth. Our forecasts for European industrial output in 1978 indicate slightly higher growth rates compared to 1977, but this does not represent any significant impairment in the underlying condition of the European economy. We have made the assumption that the European leaders meeting in Bonn this week will agree to implement policies that will add a certain percentage—between 0.5 and 1.0 percent—to their previously determined growth targets. However, the increased fiscal stimulus will not be implemented until later this year and by next January at the earliest in the case of Germany, implying that the pattern of growth in the European economy during the latter half of the year will be unaffected by the agreeemnt made at the Bonn summit. Yet the increased fiscal stimulus should provide some impetus to slightly faster growth in 1979 when European industrial output is expected to rise by 3.5 percent

compared to 2.7 percent in 1978. Growth in industrial output is expected to average about 4 percent in 1980 and 1981. On a broader basis, aggregate real GNP for the seven European countries is expected to be up by 2.7 percent this year compared to 2.1 percent in 1977, followed a 3.6 percent rise in 1979 and 3.5 percent increases in 1980 and 1981.

There are four major factors that explain the below-equilibrium growth rates forecasted for the European economy in the 1978–81 period. First, European inflation has come down from the high levels experienced in the 1974–77 period, but it is still substantially above the levels experienced in the 1960's and early 1970's and double-digit rates on average are likely to persist into the early 1980's. Although wages are tied to past changes in retail prices in most European countries, progressive tax structures result in lower increases in real disposable income and hence lower growth in consumption. Moreover, the higher levels of inflation will result in persistently high savings ratios in Europe. A second manner in which high inflation inhibits growth is through lower investment spending. Although the U.K. and German government has made some headway granting tax relief for profits arising out of increased inventory valuation, corporate profits in most European countries with the exception of France will be overstated due to the lack of tax breaks on inventory valuation adjustments. The significantly higher levels of inflation will also increase the cost of capital resulting in higher threshold rates of return on new investment.

Second, with the exception of Germany, the trade accounts in most other European countries are expected to remain in deficit over the next several years. We are even doubtful that the U.K. trade account will reflect the intended benefits of North Sea oil due primarily to the decline in interrelated price competition of U.K. goods and the government's proclivity to stimulate consumption without extending a helping hand to investment. The sizable trade deficits will cause the governments of these countries to be much more cautious in stimulating demand in spite of higher levels of unemployment for fear of incurring even larger trade deficits.

Third, we expect no increase or at best a modest rise in the investment ratio in every major European country over the next several years. A return to higher rates of growth in investment spending is a necessary condition to achieve higher productivity gains and lower inflation and unemployment. Yet the prospects for a period of sustained growth in investment spending are expected to remain bleak at least until the early 1980's. Double-digit inflation, caused in part by excessive wage gains, and high interest rates largely explain the sharp increases in capital costs and the resultant raising of the threshold rates of return of investment in the European countries. Moreover, we expect a significant proportion of investment spending to be earmarked for purchases of labor saving devices in order to offset excessive wage gains.

Fourth, the combination of high inflation, excessive wage gains, and a lowering of the investment ratio will result in no significant decline in the high levels of unemployment in Europe over the next several years.

JAPAN

The Economic Planning Agency of the Japanese government reported that real GNE rose by a hefty 10 percent annual rate in the January–March period, the highest growth since the early 1970's. The 10 percent rise in real GNE provides support to the government's claim that it will be able to achieve its 7 percent growth target for fiscal 1978, and in the process cause a significant rise in import demand. Yet, we do not agree with this interpretation of the performance of the economy during the first quarter. Slightly more than one-third of the 10 percent increase in real GNE stemed from the current account balance rising from 6.5 trillion yen (1970 prices) in the fourth quarter to 7.3 trillion yen in the first quarter; exports of goods and services rose at an annual rate of 30.0 percent, while imports rose by 9.6 percent. The foreign trade figures suggest that Japan's import demand is finally picking up, but a closer look reveals that merchandise imports were basically flat, implying a sharp increase in imports of services, a welcome event, but one that will do little to stimulate production and employment in Japan's major trading partners. Nor are we convinced that the reported 8.4 percent growth in real consumption expenditures represents the beginning of a consumer spending boom. In fact, we expect real consumption expenditures were overestimated 2.3 percent since real disposable income was up by only 5.6 percent in the first quarter and labor markets showed no improvement. The high growth in consumer spending for the first quarter is consistent with previous NIA preliminary estimates made in 1976 and 1977.

For example, original estimates for consumption in the first quarter of 1976 and 1977 showed respective increases of 14.8 percent and 5.2 percent, but these were subsequently revised downward to 6.0 percent and 3.0 percent due to substantial revisions in the estimates for the consumption price deflator. The outlook for consumer spending is not very promising. Quarter-to-quarter growth rates of about 4 percent are projected for the remainder of this year, due to only moderate growth in real disposable income and a continuation of the depressed labor market conditions.

One disappointing feature of the first quarter NIA data was the meager 3.6 percent gain in private plant and equipment spending, thus continuing the lackluster performance in this critical area since the start of the recovery. More recent statistics show that new orders for machinery in the private sector plummeted by a monthly rate of 23.4 percent in April, due mainly to the renewed appreciation of the yen. The exchange rate developments during the past several weeks are likely to result in a further decline in business confidence which, coupled with depressed profit levels will result in no significant rebound in plant and equipment spending for the remainder of this year.

We are also disappointed over the government's failure to provide the much-needed fiscal stimulus to the economy during the first quarter that would lead to above-equilibrium growth in private domestic demand later this year. Total government spending on the current and capital account was up at an annual rate of 6.8 percent in the January–March period, somewhat higher than the 3.7 percent rise in the fourth quarter, but insufficient to provide the stimulus necessary to achieve the 7 percent growth target.

In sumary, we do not think the government has provided the stimulus necessary to keep the economy growing at the 10 percent rate achieved in the first quarter. Private consumption expenditures will be given a positive boost by the sharp deceleration in retail price inflation, however, moderate wage gains of 6–7 percent and depressed labor markets will prevent consumption from expanding by more than 4–5 percent for the remainder of this year. Similarly, we expect private plant and equipment spending to continue on an upward trend, but at a rate that is insufficient to cause a substantially higher growth in overall output and employment. Given the current planned levels of government spending, we feel that the only way Japan will be able to achieve its 7 percent growth target is through continued high growth in exports. Yet exchange markets appear to be taking care of this problem with the yen rapidly approaching the 200 yen barrier. Although the excessive trade surplus registered during the past few months has led many commentators to conclude that Japan's exports are price-inelastic, we note that the high nominal value for exports is due to the substantial appreciation of the yen. Export volume declined at an estimated annual rate of 18 percent in the second quarter and this is expected to be followed by only meager growth in the second half of the year. Thus, in spite of the 10 percent growth in the first quarter, we have not altered our forecast for a 6 percent upturn in real GNE in 1978 on a calendar year basis and 5.6 percent on a fiscal year basis.

Nor does the intermediate term outlook for the Japanese economy provide much hope for a return to the 10 percent growth rate of the 1960's and early 1970's that is necessary to cause a surge in import demand. This does not imply that the Japanese economy does not have the capacity to grow by 8–10 percent per annum, but the impetus to the high rate of growth would have to come from even higher levels of government spending than are now planned, particularly in view of the poor prospects for export-led growth. Simulations of our large scale model of the Japanese economy indicate that government spending would have to increase by 35–40 percent over the next two years in order to cause the trade balance to revert back to an equilibrium. Considering the much needed improvements in Japan's infrastructure, this large increase in government spending would do much to increase the Japanese standard of living. Yet the Japanese government has indicated it will not follow policies as expansionary as we think is necessary to restore equilibrium in its trade account due to the already high levels of deficit financing that have gone beyond what the government believes are fiscally prudent.

Without the necessary help from government spending, the private sector would have to provide the impetus to a return to 10 percent growth. Yet plant and equipment spending is no longer the dynamic force in the Japanese economy that it was in the super-growth era. In fact, the ratio of private plant and equipment spending was only 14.4 percent in the first quarter, below the 16 percent at the trough of the recession and substantially lower than the peak 21 percent reached in 1973. Low levels of capacity utilization, insufficient profits caused partly by the high value of the yen and reduced profit margins, and the poor outlook for world

trade will probably prevent real plant and equipment spending from rising by more than 4 percent per annum over the next three years.

The slow growth in plant and equipment spending is an important factor for no significant improvement in labor markets over the next several years, which will put a damper on consumer sentiment. Depressed labor markets plus an expected poor performance of corporate profits will prevent business from granting labor generous wage gains that would be necessary to cause growth in real disposable income and consumption from returning to the 8 percent that existed in the 1960's and early 1970's.

OUTLINE FOR THE U.S. CURRENT ACCOUNT BALANCE

Before proceeding to a discussion of the outlook for the U.S. trade sector, it will be helpful to analyze the dismal performance experienced in 1977 which was the primary source of the instability of the dollar and an important factor behind the acceleration of inflation here in the United States during the past six months. Much of the commentary about the $18.7 billion deterioration in the U.S. current account balance between 1976 and 1977 has concentrated on increased dependence on imported oil, an issue that Helmut Schmidt is placing at the forefront of the upcoming Bonn summit. We have no major disagreement on this point, since oil imports rose by $10.4 billion to $45.0 billion in 1977. Yet the rise in oil imports is only part of the $18.7 billion deterioration in the U.S. current account balance. An equally serious problem has been the substantial deterioration in the net foreign balance of manufactured goods that recorded a deficit of $2.2 billion in 1977 compared to a surplus of $7.3 billion in 1976. The deterioration in the net manufactures balance has been shunted by the foreign leaders of the major industrialized nations attending the Bonn summit, and understandably so since it was the dramatic rise in manufactured exports from Japan and Western Europe that played a major role in the deterioration as will be shown below. However, we consider the deficit in manufactured goods to be critically more important to the health of the U.S. economy since it has a more important bearing on employment and inflation than does the oil deficit.

As pointed out in a previous section of this report, the growth rate in the United States was 4.9 percent in 1977 compared to an average of 3.1 percent in Japan, Canada and Western Europe which largely explains the sharp rise in U.S. imports and lackluster growth in exports. However, this does not fully explain the poor performance of net manufactured goods, and certainly one should have expected that the strong appreciation of the European currencies and the Japanese yen since late 1976 should have had at least some partial impact on the U.S. trade account by late 1977 or early 1978.

All the evidence gathered to date suggests that U.S. foreign trade did not respond to the improved price competitiveness of U.S. goods in 1977. In fact, as shown in Table H, just the opposite occurred. U.S. export volume to almost every major trading partner included in the CEAI International Model System declined in 1977, while U.S. imports from these same countries rose substantially. Moreover, in a number of the important trade links, exports from the United States declined while total imports rose, thus implying a lower U.S. trade share in key foreign markets. For example, U.S. export volume to Japan fell by 6.3 percent in 1977, yet Japan's volume of merchandise imports rose 4.2 percent. Similarly, U.S. exports to Germany were down by 6.2 percent, while Germany's imports were up by 5.5 percent.

TABLE H.—BILATERAL TRADE DATA

[Percent change]

	Export volume, United States to foreign countries		Export volume, foreign countries to United States		Total import volume by importing country (1963 prices)	
	1976	1977	1976	1977	1976	1977
United States-France	14.4	−8.8	16.3	17.0	20.8	0.5
United States-Germany	14.1	−6.2	5.5	13.8	16.5	5.1
United States-Italy	5.6	−18.0	−.3	19.4	14.2	−.1
United States-Netherlands	5.8	−1.9	−1.7	29.0	12.8	2.8
United States-United Kingdom	4.0	1.3	14.1	10.9	5.9	.7
United States-Japan	3.8	−6.3	28.2	17.0	8.1	4.2
United States-Canada	10.9	6.8	11.7	11.3	7.2	.7
United States-Belgium	23.8	4.2	−6.6	29.1	14.5	6.0
United States-Mexico	−2.9	−3.7	17.4	30.2	−10.9	−6.4
United States-Spain	−6.6	−7.2	9.8	6.0	3.9	−.1
United States					18.4	10.2

There are several possible explanations for the lower U.S. trade share in the major industrialized countries. First, the time lag between changes in price competitiveness and exports is substantial and may be as long as two years in the case of capital goods. Thus the vastly improved price competitiveness of U.S. goods during 1977 and 1978 may not have a significant effect on U.S. exports of capital goods until 1979 or 1980. Second, a significant portion of U.S. exports are concentrated in food and industrial raw materials that are traded in world markets and have a fairly low price elasticity. Third, most countries had ample supplies of inventories of raw materials in 1977.

Yet in spite of these factors, U.S. producers should have been able to take advantage of the moderate rise in imports in the major trading partners of the United States, even considering the long time lag needed to adjust to changes in price competitiveness. More aggressive selling could have helped to achieve at least a moderate rise in U.S. exports to Europe and Japan, yet as previous experience has shown, most U.S. producers have a cavalier attitude toward foreign sales, and they lack the government incentives that producers enjoy in other countries. For example, the Carter administration has proposed the phasing out of DISC's, one of the few export incentives available to U.S. producers, while the fate of the EXIM bank is in doubt because of political considerations rather than the need for export financing. Fortunately, more enlightened members of the U.S. Congress have recognized the importance of expanding U.S. exports. The recently concluded House and Senate hearings showed some indication that a more responsive foreign trade policy may be in the offing, although passage of a bill is not likely to occur until late 1978.

We also believe that the constant barrage of criticism by the Carter administration that the Japanese and German governments were not doing enough to stimulate their economies has backfired. Public opinion in Germany and Japan has rallied in support of their government policies, thus contributing to an anti-American sentiment that has had a negative impact on U.S. exports to Japan, Germany and other European countries.

Another important factor that may help to explain the lackluster performance of the export sector in 1977 that is continuing this year is rapidly diminishing gap between actual and potential GNP here in the United States. This is at variance with the popular indexes that show capacity utilization rates to be about 85 percent. However, these indexes overstate the amount of total capacity available, particularly in those industries with heavy requirements for pollution abatement. The Chase Econometrics estimates for the GNP gap indicate that the economy is operating much closer to full capacity than is thought to be the case. If this analysis is correct, then producers will probably shift even more resources to domestic markets, and hence they are not likely to be able to take advantage of the improved international price competitiveness of U.S. goods.

In summary, the problems with the U.S. foreign balance go beyond leads and lags, the J-shaped curve effect of a devaluation, and the short-term increases in Japanese exports. U.S. producers now enjoy their best competitive advantage since 1973, but we have yet to detect any significant pickup in U.S. shipments abroad, nor a throttling down of the appetite of U.S. consumers for foreign goods. While there is little doubt that a sharp depreciation in the U.S. dollar will have some positive impact on U.S. trade in 1978 and 1979, major structural changes in the consumption-oriented policies of the United States and the export-oriented policies of Japan and Western Europe will have to take place before the U.S. trade account even approaches equilibrium. Thus we continue to be relatively pessimistic on the outlook for the U.S. net foreign balance over the next several years.

In the near term, the current account balance should improve as a result of the unwinding of leads and lags following the rally of the U.S. dollar in April and May. Economic activity in Europe and Japan is improving, albeit at a moderate pace, while U.S. crude oil imports are showing signs of declining as a result of slower growth in the economy, increased North Slope production, and domestic conservation programs and legislation. Further support for the U.S. trade account will stem from higher agricultural prices as well as a pickup in world demand for feedgrains. Net exports of goods and services are expected to rally from −$23 billion in the first quarter to −$10 billion by 1978.4, but this still implies a yearly average figure of −$16 billion, down from −$11 billion in 1977, +$8 billion in 1976, and +$20 billion in 1975. On an intermediate term basis, the net foreign balance should improve to −$10 billion in 1979 and −$9 billion in 1980, but this will still be a dismal performance compared to the pre-1977 experience.

Representative MITCHELL. Thank you. There will be some questions. I feel so depressed.

Mr. Ranson, you are next. Your full prepared statement will be incorporated in the record.

STATEMENT OF R. DAVID RANSON, SENIOR ECONOMIST AND PARTNER, H. C. WAINWRIGHT & CO., BOSTON, MASS.

Mr. RANSON. Thank you for inviting me. I am delighted to come.

Let me come to the bottom line of my remarks first. I will talk off the cuff.

As I see it, the outlook for the world economy, and the U.S. economy in particular, in the foreseeable future, without changing policies, is deepening stagflation.

What I have to say will contradict a great deal of what other witnesses have to say, because my premises, and therefore my conclusions, are different.

I believe the mainstream of economic throught is pretty well inadequate to handle the problem of stagflation. We hear this said in media many times these days. There is a lot of weeping and moaning, but there are not many positive and constructive attempts being made to provide an economic framework which would explain stagflation. Not only explain it, but provide an understanding of it, and provide remedies for it.

That is the task of research in which my firm has been engaged, under the leadership of Arthur Laffer. Our economic framework is classical economics. It is not any different from the old line of economics, but it is a departure from what has taken place in economic thought during the so-called post-Keynesian period.

Let me go through three premises to show how very different this view of the world is from the mainstream wisdom which pretty much dominates discussion of these issues.

First of all, what drives the economy? Where is the source of the economy? Why do we have an economy in the first place? It is not demand from the point of view of this framework. We cannot have demand by itself. You have to have supply. In fact, supply and demand are not two different things opposed, but two sides of the same coin.

People supply goods and services because they want to exchange what they supply in the marketplace for what they can demand. Supply and demand are really the same thing, viewed from two angles. Demand does not drive the economy. What drives the economy is incentive to produce, and thereby to consume. Productive incentives explain economic activity to a great deal empirically as well as logically.

That is the first premise. It is very different from the premise underlying implicitly, rarely explicitly, most of the conventional discussion today.

Second, and again this is not a new insight, the United States is not a closed economy all unto itself. The economy of the United States does not end at the foot of the Kennedy runway. The United States is just a part of an integrated world economy. The full implications of this are often not fully realized.

It is often said that our exposure to the outside world is limited, because trade accounts for only 6 or 8 percent of our GNP. But not only is trade integrated with the world economy, so is the other 92, 94 percent. The reason is that our nontrading sector has to compete in the marketplace with our trading sector, and our trading sector has to compete with the world. So at only one place removed, our entire economy competes with foreign countries.

The third premise is the notion that the marketplace, markets in general, are intelligent, rational, and respond to events in a reasonable way. The reason why we have a complete screwball of a world economy is not that the private producers and consumers are behaving irrationally. This premise suggests that they are forced into crazy economy behavior by economic policies which are not realistic. Of course, economic policies based on fallacies will tend to give you strange results. That is, in broad outline, a diagnosis of what is going on in the economy.

Let me give you some of the bricks and mortar of it. Let me pick out one specific respect in which this way of looking at the economy differs from the conventional wisdom.

Virtually all of the conventional wisdom assumes by and large that you can fool all of the people at least some of the time. In particular, by cheapening the currency, you can fool the population into buying, and therefore, into producing more goods and services.

This directly contradicts the premise I just outlined. If the premise is true, then the adjustment process as described in conventional thought is not going to work logically, let alone empirically. Devaluation will not improve the trade balance.

Monetary policy, expansive monetary policies at home, will not stimulate production either. That is not only logical but if you look at the empirical evidence, it is incredible how overwhelming the evidence over a long period of time supports this rather extreme sounding conclusion.

I have in my prepared statement a number of charts which supply some evidence, especially on the problem of devaluation, specifically figures 3, 4, and 5. We find empirically over both short periods and long periods that devaluation is followed promptly by an offsetting change in prices.

Devaluation does not change anything real. It only changes the prices by which we measure the exchange of goods and services with respect to each other. In figure 3 I show on a quarterly basis over a 5-year period, that when either appreciation or depreciation occurs the prices of copper in different currencies accommodate immediately.

Representative MITCHELL. I hate to do this to you, but there is a vote over on the House side. We will take a recess for 10 minutes.

I will make that vote and try to come right back.

[A brief recess was taken.]

Representative MITCHELL. Gentlemen, we will resume.

Mr. Ranson, again I apologize. We had the final vote on the parks bill.

Mr. RANSON. I was just referring to three of the charts in my prepared statement which are in support of my contention. Extreme as it sounds, devaluation, or if you like, depreciation, and in reverse appreci-

ation and revaluation, very promptly have the effect of causing prices to move in an offsetting way.

Thus, the real situation after the devaluation is the same as it was before the devaluation. If you cannot change the real situation, by which I mean production of goods and services, and incentives, then you cannot change the trade balance.

I refer to Arthur Laffer, who was my thesis adviser at Chicago, and with whom I have been working for many years. Three or 4 years ago he put together a test by making a complete list of all the devaluations—I helped on this exercise—which occurred in the industrialized nations since the Second World War. We found that in approximately 50 percent of the cases, the trade balance improved after the devaluation, and that in 50 percent of the cases, the trade balance worsened.

Since that test, in the last 5 years, I have done another test, looking at the major industrialized nations, and found there is a correlation between the trade balance and devaluation that goes in the wrong direction from the viewpoint of mainstream wisdom. That is, countries such as Britain and Italy, that have had the worst balance-of-payments problems, have been the ones that have the weakest currencies. Others such as Switzerland, Holland, and Germany, which had stronger currencies, had the most substantial and stubborn surpluses.

If devaluations do not affect the trade balance, what do they do? What they do is to cause inflation. In fact, the logic is quite strong here. A 1-percent devaluation, if this is correct—and we do not present this model as the whole answer but as only part of it—will create 1-percent inflation in the home country relative to the rest of the world. I refer specifically to figure 4, showing the overall inflation in the United States since the 1900's, relative to foreign countries. The chart indicates a 1-to-1 correspondence between the devaluations that took place, and the relative inflation rates.

What have we had in the last 9 months? It is my contention that the most significant event is one that most people have neglected, or at least viewed as a small factor in the whole situation. I believe that the most decisive factor in the whole situation is the 14 percent depreciation in the U.S. dollar relative to our major trading partners since last September.

If this model is correct, as I believe it is, then that 14 percent depreciation should create 14 percent inflation relative to foreign countries. That is over and above the inflation rate countries have had and are having.

From this model's point of view, the double-digit inflation in the last several months is not a surprise at all. It is a completely predictable consequence of the policies that by default the Treasury Department has followed in the last year; namely, to let the dollar slide down..

But that is not the end of the story. Proceeding on from inflation, you get effects through the tax structure which produce a real consequence to what is initially only a monetary cause. As everyone knows, and this is very familiar now, inflation pushes people into higher tax brackets, and especially the business sector. This can be quantified too, as indicated in figure 2.

As I mentioned earlier, one of the premises of this approach is that incentives are what drive the economy. If you push people into higher tax brackets, you hit the root source of the driving force behind the economy; namely, incentive.

So you should expect inflation to lead to slower growth. Again, there is some confirmation of that. If you actually plot the rate of inflation in the last 10 years or so against the rate of growth, you find a negative correlation as shown in figures 8 and 9. The faster the inflation, the lower the growth, and vice versa.

This is just the opposite of the conventional wisdom. Conventional wisdom says that high inflation occurs when you grow too fast, and high growth when your inflation is fast. You also have low growth when your inflation is low. Empirically, just the opposite is true.

So the outlook for the U.S. economy would be more inflation and lower growth. In a word, stagflation. This is a model that predicts stagflation from the policies we have had in the past, the policies we still have today.

The same thing occurs in other countries. Other countries have tremendous increases in taxes over the last 10 or 15 years. A lot of that is due to inflation, but a lot is due to tax policies also. The few countries who have reduced taxes in the last 15 years have had higher growth.

There is a strong correlation between tax policy and growth. There are some policies implicit, therefore, in this model. If this model is correct—and everything hinges on that; and as I say, I do believe it is correct, but not the whole story—the first thing is to peg the value of the dollar to foreign currencies, especially to those European currencies whose governments want to have a stable currency.

That is a good policy as they well realize in Europe. I think it will take us a while to realize it here.

A second recommendation would be to cut taxes decisively, preferably across the board, but most importantly in those areas of the economy presently stuck in the highest ranges. These are; namely, low-income labor which is taxed at high rates due to the disincentives of our welfare programs; capital gains, where the taxation goes on top of the other taxes on investment income; and business profits.

Third, controls will only make the damage worse. The damage of inflation is already done.

As figure 7 illustrates, we have seen only half of the inflation that is coming due to the depreciation of the dollar. You can calculate that from the one-to-one correspondence that I mentioned earlier. Price and wage controls can only paper over the cracks.

As a long-range policy, the only real approach to inflation is to make the currency sound.

Tying to foreign currencies is not the ultimate answer, because foreign currencies may not be sound either. Tying to gold was always the solution until the 20th century, but gold is only one commodity. It is a rather unpredictable commodity. It makes more sense to tie the dollar to the marketbasket of goods and services. This is a radical policy not much discussed these days.

A second long-range policy, in the absence of a sound dollar policy, would be to index the tax structure against inflation.

Fourth, the trade balance can take care of itself if the economy is healthy. Crazy trade balance fluctuations are a natural result of crazy economic policies. To try to impose controls on trade balance flows is only to try to impose controls on the flow of resources between countries. That flow of resources is fundamentally healthy. It leads to an economy which is intelligent, as I believe ours is, to more growth and not less.

[The prepared statement of Mr. Ranson follows:]

PREPARED STATEMENT OF R. DAVID RANSON*

THE DOLLAR AND THE ECONOMY

SUMMARY

In my view, the most important economic event of the past twelve months has been the officially-sanctioned 14% depreciation in the average value of the dollar. A decline of this magnitude has the following implications, several of which are already painfully evident:

- double-digit inflation in the U.S.; we may have seen in the CPI and WPI little more than half of the inflation which is predicted to occur;
- an increase in marginal tax rates on the incomes of business and households;
- sharply lower growth;
- lower (or even negative) inflation and accelerating growth in strong-currency countries such as Japan and Switzerland.

Since the international monetary system was unhinged with the abandonment of the 1944 Bretton Woods agreement, the dollar has periodically come under pressure. Adoption by U.S. policymakers of a hands-off approach has facilitated a 14% fall in the dollar's value between last September and early July.

Contrary to official dogma, a soft currency does not improve the trade balance. However, its consequences for inflation and thereby for tax brackets are far greater than is yet realized in Washington. These consequences imply a decline in economic incentives, a slowing of national output, and an increase in the "wedge". Obsolete economic policy responses have confined the U.S. economy in 1978 to a vicious circle resulting in higher inflation, unemployment and budget deficits, and lower growth and stock prices.

If this analysis is correct, the first quarter "pause" in the economy is due to more than the coal strike and severe winter. Thus, I expect it to last longer than policy makers do.

The longer term outlook has improved recently, with more responsible policies toward the dollar, and moves afoot in the Congress to reduce tax rates without increasing the progressivity of the tax system. If these developments were to continue, productive incentives and confidence would recover, and economic activity would respond. Until that occurs the economy is likely to remain in a state of stagflation.

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*Special assistant to the Secretary of the Treasury during the Ford administration. Before joining H. C. Wainwright & Co. at the beginning of 1977, Dr. Ranson taught economics at the University of Chicago Graduate School of Business. This testimony draws upon two reports issued by H. C. Wainwright & Co. in the past 6 months: "The Falling Dollar" by R. David Ranson and "The Prospect of a Recession" by R. David Ranson and Charles E. Babin. The author is indebted to Charles E. Babin, Charles W. Kadlec, and Donna M. Jarvis for support and assistance.

THE FALLING DOLLAR

The plight of the dollar is once again front-page news. No wonder! Of eleven major world currencies only two have underperformed the U.S. dollar since the end of 1976 (Table 1).

Table 1

Cumulative Appreciation and Depreciation
From the End of 1976 to the Middle of 1978
(each relative to a weighted average of the other ten currencies)

appreciating currencies	cumulative apprecation(+)
Japanese yen	+35.5%
Swiss franc	+23.4
German mark	+ 7.2
Belgian franc	+ 3.8
Dutch guilder	+ 3.7
British pound	+ 2.6
French franc	+ 2.5
depreciating currencies	**cumulative depreciation(-)**
Italian lira	- 5.4%
U.S. dollar	- 8.9
Swedish krona	-19.3
Canadian dollar	-20.5

Source: Federal Reserve Board, exchange rates weighted according to 1972 global trade.[1]

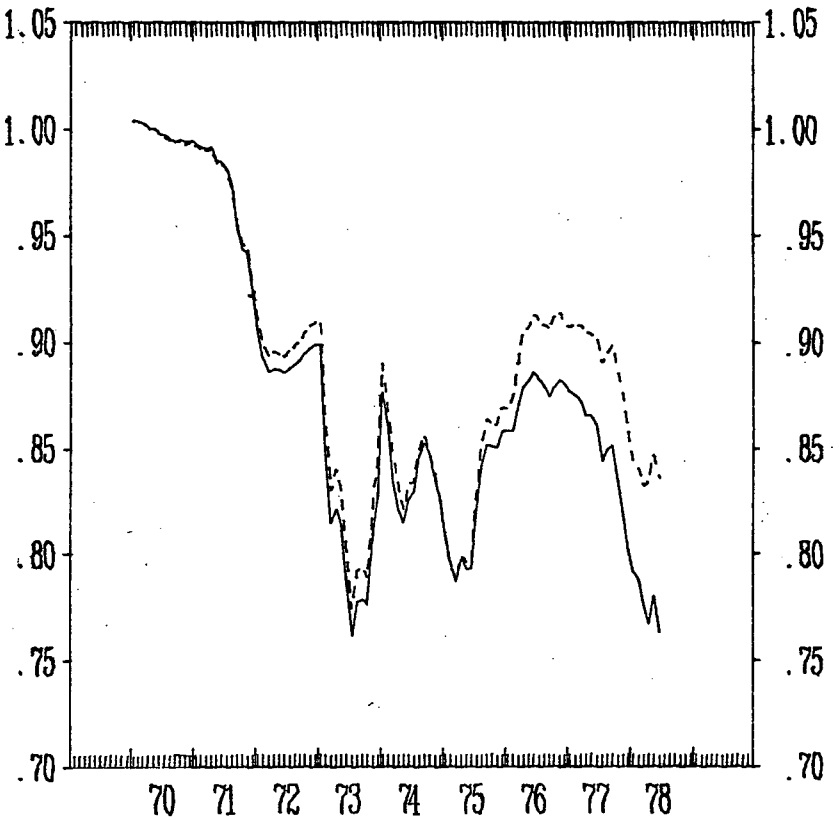
Moreover, as Figure One shows, most of the U.S. dollar's fall has occurred since the third quarter of 1977.

The U.S. dollar fell by nine percent since the beginning of 1977 in spite of the fact that several governments intervened in the foreign-exchange market on a large scale to support the dollar. In the absence of these stabilizing actions, the dollar's fall would no doubt have been greater than it was.

This commentary will outline the implications of these currency movements with special emphasis on the United States. I believe that prevailing opinion among U.S. economists and policymakers is incorrect, and harmful when translated into practical policy. Contrary to official pronouncements, I believe that the fall in the U.S. and Canadian dollars is responsible for increased inflation and lower economic growth in North America than would have been the case if exchange rates had been fixed. In perspective, the experience of the past eighteen months appears to be part of a world trend toward increasing instability in the world monetary system. It also spells a further decline in U.S. chances of regaining its past leadership role.[2]

Figure One

Foreign Exchange Value of the U.S. Dollar



------- In terms of ten major countries, weighted by 1972 global trade (Federal Reserve Board)

——— In terms of eight major countries, weighted by 1974 gross domestic product

FAILURE OF DEMAND-BASED POLICIES

The U.S. economy during the 1970's has been characterized by stagflation — high inflation during periods of economic slowdown. Traditional analysis has lacked the ability to explain this debilitating phenomenon. Inflation, which was thought to be generated by too much demand for goods and services relative to supply, was allegedly incompatible with unemployment, which was thought to be generated by too little demand relative to supply. In the light of so obvious a disagreement with reality, it is disappointing that every prescription for the economy yet proposed by the Carter Administration to combat stagflation has been based on the old, hopeless nostrums.

Evidence is mounting that conventional prescriptions are incapable of curing the economic malaise. For example, according to Keynesian theory, government spending sets off a cascading effect throughout the economy, and provides a powerful stimulus to total demand. But it is difficult to argue that the economy has done poorly because we have not spent enough. Government transfer payments as a percent of GNP have nearly doubled to 12–13% in the last decade.[3] Broadly-defined deficit spending has increased at an unprecedented rate: legislated long-term financial commitments exceed the national wealth twice over.[4] These are liabilities which could exceed the tax system's ability to pay.

Second, according to Monetarists, rapid expansion of the money supply leads, after a lag, to an acceleration in real GNP also by stimulating total demand. Overly slow monetary expansion allegedly reduces real growth. But it is no easier to build a case that inadequate money supply has been responsible for the chronic unemployment of the last few years. Monetary expansion rates have accelerated from 2½% during the period 1947–67 to 6% during the period 1967–77.

Third, according to some international experts, a depreciation of the dollar makes U.S. goods cheaper. By improving U.S. competitiveness in world markets, it stimulates total demand for U.S. products. An increase in the value of the dollar allegedly has contractionary effects. But it is just as difficult to explain the economy's fragile state as the result of an overvalued currency and a corresponding lack of competitiveness. The dollar has been declining in value during the past decade.

Table 2 summarizes the postwar experience with respect to these three traditional sources of economic stimulus.

Table 2

Growth and Inflation and Traditional Indicators of Economic Stimulus

	average annual rate of increase in:				
period	real GNP	GNP deflator	real transfer payments*	money supply (M1)	value of the dollar†
1947–52	5.0%	3.1%	–1.4%	2.3%	8.3%
1952–57	2.6	2.3	8.2	1.8	0.7
1957–62	3.3	1.6	7.7	1.8	0.5
1962–67	4.7	2.3	6.9	4.0	0.1
1967–72	3.1	4.8	8.3	6.1	–1.8
1972–77	2.7	7.2	8.4	5.9	–0.9

*Total transfer payments of federal, State and local governments corrected for inflation.
†Average foreign-exchange value of the dollar, based on eight major currencies, weighted by national output.

As shown, the decade of lowest growth coincided with the decade of highest inflation. This same decade also experienced the most rapid growth of real transfer payments, the fastest expansion of the money supply, and the greatest decline in the value of the dollar. I do not believe these correlations are fortuitous, however inconsistent they may be with prevailing economic wisdom.

A disease can be effectively treated only if it is correctly diagnosed. If President Carter is to realize his target of 5% real growth and moderate inflation during the balance of his tenure, he can hardly do without an economic framework which stands the test of explaining stagflation.

AN ALTERNATIVE FRAMEWORK

I believe that the following premises and conclusions offer a framework which stands the test of explaining stagflation:

- The economy is not driven by "demand" *per se*, but by a delicate balance of incentives to work, produce and invest.
- Government programs which tax producers and reward non-producers diminish economic incentives. Thus, irrespective of their theoretical impact on demand, they hurt the economy and retard its growth.
- Persistent unemployment is not due to a shortfall of aggregate demand relative to supply. It results from weakened incentives to employ labor and to exert work effort. Tax- and debt-financed transfer programs foster unemployment by widening the "wedge" between labor cost and take-home pay.
- The United States is not a world unto itself, but part of a substantially integrated world market for goods, capital and money.
- The relative prices of goods and services, and the competitive positions of nations, are set by real forces of supply and demand in the world as a whole. Transport costs and trade barriers aside, prices tend toward parity in all countries.
- Currencies are yardsticks against which prices are quoted. When exchange rates remain fixed, inflation rates in all countries tend to converge. When one currency shifts relative to another, prices measured in that currency shift proportionately relative to prices measured in the other currency.[5]
- A tax structure which penalizes some economic activities at sufficiently high incremental rates (the "prohibitive range" of the "Laffer curve") *reduces* government revenue.[6] Such disincentives also create bottlenecks in the chain of production and distribution, and thereby contract the overall economy.
- Inflation is not due to an excess of aggregate demand over supply. It results from too much money chasing too few goods, or from a decline of confidence in the dollar. Such a decline can arise from:

  (a) an unhinging of the dollar from reliable standards such as gold;

  (b) an irresponsible expansion of the monetary reserve assets which underly the banking system;

  (c) a refusal by the government to defend the dollar in the foreign exchange market by extinguishing unwanted dollars.

- Inflation pushes bottleneck areas of the economy (especially incorporated business capital) deeper into the prohibitive range by raising their tax brackets *de facto*. It thereby curtails the growth of output, profits, wages and employment.

In sum, currency depreciation is *pari passu* inflationary and, with a highly skewed tax structure, also leads to economic stagnation.

These premises provide a framework that contradicts the conventional wisdom. They explicitly predict stagflation as the result of government policies that separate effort from reward and which fail to secure the value of the currency. Far from an enigma, stagflation is thus a predictable consequence of wrongly focused economic policy.

The framework also provides natural explanations for several economic phenomena that have puzzled economists, policy makers and financial observers. While these explanations are not new or original, they do follow directly from the same set of premises. These phenomena include the following:

(A) Stocks, traditionally a hedge against inflation, have in recent years tended to decline during inflationary periods. The inverse correlation between stock prices and inflation rates is statistically significant.[7]

(B) Federal revenues as a percent of GNP have risen since the mid-1960's only 2 percentage points (to 20%), although marginal tax rates on given levels of real income have risen anywhere from 4 to 17 percentage points.

(C) In the face of vast government expenditure programs, people in depressed urban neighborhoods face almost insurmountable barriers against self-improvement by economic means.[8]

(D) Currency devaluations, both in North America and Europe, have usually failed to improve the devaluing country's balance of trade.[9]

(E) Net capital investment is running below historical rates in the face of large increases in business liquidity.[10]

(F) The Phillips curve has disappeared — inflation and real growth have been inversely correlated during recent years.[11] This relationship too is statistically significant.

(G) In spite of the scoffing of some economists, inflation is extremely unpopular politically.

EFFECTS OF INFLATION ON TAX BRACKETS

The fact that inflation pushes personal income into higher tax brackets is well known. To quantify this, consider a series of hypothetical families of four whose incomes have remained constant in real terms since 1965, when the present tax rates for ordinary income came into effect.[12] Using IRS tax tables, each family's marginal bracket can be calculated for each year.

family	income (1977 dollars)
I	$ 12,500
II	25,000
III	50,000
IV	100,000
V	200,000

Figure Two displays the upward drift in these families' marginal tax brackets that resulted from the doubling of the price level that has taken place since 1965. The temporary bulge in 1968–70 is due to the tax surcharge during those years. As shown, the greatest effect on incentives was felt by the family which in 1977 earned $50,000. This family's bracket increased 17 percentage points to 51% during the 1965–78 period. Families with incomes higher than $200,000 have been less affected due to the 70% maximum rate. Thus, an $800,000 family today is in the same marginal tax bracket as a $200,000 family. Under today's legislated tax structure, a $25,000 family will reach the 51% bracket by the time the price level has doubled again. (If current inflation rates persist, this will occur in nine years.)

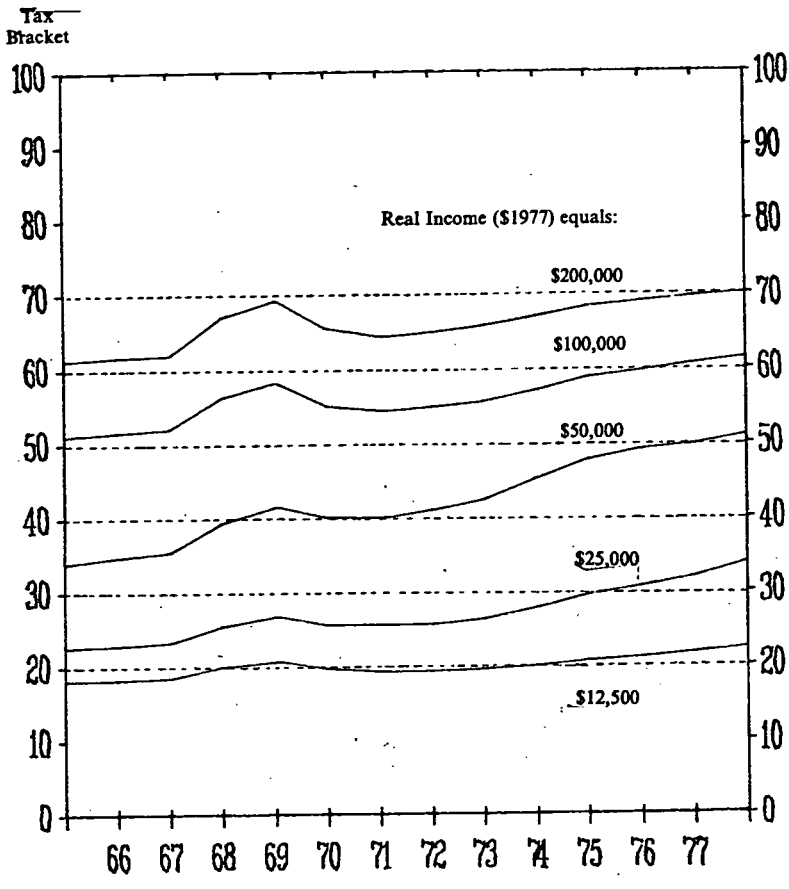
The effect of inflation on marginal tax rates incurred by business, and therefore on business incentives to produce and invest, is harder to quantify. But it is easy to quantify three channels by which inflation forces businesses to pay higher taxes on the same real profits:

1) UNDERCOSTING OF GOODS SOLD. Historical cost accounting provides several different methods for accounting for inventories: LIFO (last in–first out), FIFO (first in–first out), average cost, and higher of cost or market.[13] Some firms even find it convenient to use different methods in different divisions. All of these methods to one degree or another understate the cost of goods sold from an economic point of view, where the relevent valuation method is replacement cost.[14]

   The higher the rate of inflation, the more out–of–date historical costs become, the more the cost of goods sold is understated, and the more reported profits are overstated. Since the corporate income tax applies to the reported profits, and not to profits computed on a replacement cost basis, higher inflation leads to higher taxes.

Figure Two

Marginal Federal Tax Brackets on Personal Ordinary Income, Family of Four



For practical purposes it is often assumed that LIFO is a reasonable approximation to replacement cost. For the total nonfinancial corporate sector of the economy, Table 3 lists the difference between cost of goods sold as reported, and as converted to a uniform LIFO basis. The final column in the table estimates the extra corporate profits taxes (assuming a 48% marginal rate) payable as a result of the discrepancy between reported and LIFO costs of goods sold. As shown, the worst episode occurred in 1973–74 when inventory prices skyrocketed; in those years undercosting resulted in an extra $28 billion of corporate taxes — more than half the actual taxes levied!

Table 3

Impact of Inflation on Undercosting of Goods Sold
(billions of dollars)

Year	Inflation rate For inventoried goods(a)	Inventory Valuation Adjustment(b)	Extra taxes due To undercosting (@ 48% rate)
1962	0.3%	$–0.1	$–0.1
1963	0.1	0.2	0.1
1964	0.2	0.5	0.3
1965	3.7	1.9	0.9
1966	1.4	2.1	1.0
1967	1.5	1.7	0.8
1968	2.7	3.4	1.7
1969	5.2	5.5	2.7
1970	1.7	5.1	2.4
1971	4.6	5.0	2.4
1972	6.4	6.6	3.2
1973	16.4	18.6	8.9
1974	16.5	40.4	19.4
1975	3.8	12.0	5.8
1976	4.9	14.1	6.8

(a) Computed from fourth quarter of preceding year through fourth quarter of current year;
(b) Equals discrepancy between cost-of-goods-sold as reported and after adjustment to LIFO.
Source of raw data: U.S. Department of Commerce, Bureau of Economic Analysis, *National Income and Product Accounts.*

2) UNDERDEPRECIATION OF FIXED ASSETS. As with inventories, fixed assets such as plant and equipment are valued on the books at historical (acquisition) cost for tax purposes. This results in an understatement of depreciation expense.

Table 4 lists aggregate depreciation for the nonfinancial corporate sector as reported, and as converted to a "current value" basis by the Department of Commerce. The final column estimates the extra corporate profits taxes payable due to underdepreciation of fixed assets. From this viewpoint, too, 1974 was a very bad year with $10 billion of extra tax liabilities. Unlike the case of undercosting, however, the over-reporting of profits due to underdepreciation takes many years to die away after the inflation which triggered it has ceased. Thanks to this fact, combined with continuing inflation since 1974, extra taxes levied due to underdepreciation were even higher in 1975 and 1976.

Table 4

Impact of Inflation on Underdepreciation of Fixed Assets
All Corporations
(billions of dollars)

	Inflation rate For new plant And Equipment(a)	Depreciation		Difference	Extra taxes due to under depreciation (@48% rate)
		At historical Cost(b)	Adjusted to Current Value		
1962	0.6%	$ 24.4	$ 28.9	$ 4.5	$ 2.2
1963	0.9	25.9	30.0	4.1	2.0
1964	1.0	27.5	31.3	3.8	1.8
1965	1.2	29.4	33.1	3.8	1.8
1966	3.0	32.0	36.2	4.2	2.0
1967	3.3	34.8	39.8	5.0	2.4
1968	4.2	37.7	43.7	6.0	2.9
1969	4.8	41.0	48.6	7.6	3.6
1970	5.4	44.6	54.2	9.6	4.6
1971	5.5	48.1	59.7	11.6	5.5
1972	3.8	51.7	64.3	12.6	6.0
1973	3.8	56.3	70.6	14.3	6.9
1974	11.1	61.5	83.1	21.6	10.4
1975	14.7	66.8	99.6	32.7	15.7
1976	4.8	73.2	108.0	34.8	16.7

(a) Average change in prices since preceding year.
(b) With adjustments to bring different companies to common accounting assumptions (including double-declining balance formula).
Source of raw data: Bureau of Economic Analysis, *Fixed Nonresidential Business and Residential Capital in the United States,* 1925–75, updated.

3) CAPITAL GAINS TAXES. Historical cost accounting is again used for tax purposes where a private individual or a business firm sells an asset such as a security or a piece of real estate. For a given real return, the higher the inflation rate during the period he held the asset, the larger will be the capital gain he must report to the tax authorities.[15] In the case of corporate stock, this extra tax raises the effective cost of equity capital to business throughout the economy.

CONSEQUENCES OF A DECLINING DOLLAR

Other influences remaining equal, a declining dollar implies:

- a rise in the U.S. price level as compared with stronger-currency countries;
- American individuals and corporations pushed into higher tax brackets, thus weakening incentives for employment and production;
- higher risks and costs of doing business overseas;
- lower levels of production, and profits;
- higher unemployment;
- lower stock prices.

These effects are listed in logical, not temporal, sequence. Stock prices and interest rates appear to adjust promptly, while the effect on official price indexes takes a few months to show up. Unemployment is perhaps the slowest variable to respond.

There are two mechanisms which make this sequence of events a greater threat to the economy than it would otherwise be, by setting off a depreciation/inflation/depreciation spiral. First, increased inflation and unemployment may trigger inappropriate policy responses in Washington. For example, wage-price controls cannot alleviate the true rate of inflation in an efficient market, and may actually exacerbate it by inhibiting the use of resources. Likewise, increased government spending only weakens employment incentives further. Such policy responses can "feed back" to the foreign-exchange market and, in the absence of a policy to support the dollar, renew the depreciation/inflation cycle.

Second, once a currency has begun to decline, confidence in it diminishes, and moneyholders attempt instead to use substitutes and to cut down on their balances of the weak currency. For example, multinational enterprises and banks move out of dollars and into Swiss francs and German marks, etc.[16] The mechanism is like that in Gresham's law according to which people hoard "good" money and get rid of "bad" money by spending it. Anticipations of a further fall in the currency are encouraged, generating expectations of higher inflation, higher interest rates, higher expected future tax brackets and reduced incentives for growth and capital accumulation. As economic health declines, the currency becomes even less attractive relative to others, and its value diminishes further. There is no theoretical end to this dynamic process in the absence of firm intervention by the monetary authorities. It has been the process responsible for hyper-inflation at other times and in other places.

SOURCE AND IMPLICATIONS OF EXCHANGE-RATE MOVEMENTS

The logic behind these conclusions can best be explained by juxtaposing the view of the world economy commonly held in North America with an alternative and contrary view.

According to one popular theory, exchange rate movements reflect a combination of domestic price pressures and speculative tendencies. If a country "overstimulates" its economy, inflation will accelerate domestically, and the country's goods will become "uncompetitive" in world markets. The country will experience an increased trade deficit, and speculators will bet on a decline in the value of its currency. However defiantly the central bank defends the currency, devaluation is supposedly bound to come sooner or later unless the stimulative policies are reversed. When devaluation does occur, "equilibrium" will allegedly be restored, the prices of the country's goods in world markets will again be competitive, and the trade deficit will be eliminated. Some of the economists who advocate this theory believe that governments can best avoid the adverse effects of "disequilibrium" in world markets by allowing their currencies to float.

This has, indeed, been the policy of the U.S. Government. The Administration hopes also that the fall in the dollar will alleviate some of the mounting political pressure from a number of domestic industries for protectionist policies.

I believe that the different view (known as "Global Monetarism") is more logical and more capable of explaining actual events:[17]

1. The prices of one nation's goods in terms of another's are fixed not by exchange rates but primarily by domestic and international competition (the "Law of One Price").

2. Traded goods must compete also with nontraded goods. As a result, all areas of the economy are highly exposed to price and quantity changes originating overseas as well as at home.

3. A country's inflation is not the cause of exchange rate movements, but it may be the effect. Inflation is a worldwide phenomenon, and is associated with over-rapid growth of the world's money supply.

4. Differential rates of inflation between countries occur to the extent that exchange rate shifts take place between the corresponding currencies. Such shifts may be triggered by active government policy. Or, in a floating rate regime, they may be changed by default ("malign neglect") through private market perceptions of future monetary policies.

5. Major currencies are close substitutes for one another even when they are not convertible. To control the effective quantity of money available to its citizens and businesses, a country would have to control the *global* quantity of money.

6. There may not be any unique "equilibrium" or "natural" exchange rate between two currencies. An infinite number of different exchange rates may be possible. However, for any given exchange rate trajectory, a specific path of comparative price levels and inflation rates is implied ("purchasing power parity").[18]

It is implicit in these propositions that fluctuations in currency exchange rates do not alter the price of one good in terms of another, but merely the yardsticks by which countries measure nominal prices. For example, grade for grade, the spot delivered price of copper in Paris (measured in any specified currency) is the same whether the copper is of Belgian, American or British origin. To conclude otherwise is to presume that national markets are segregated, or that arbitrage profit opportunities (like buying cheap from one country and selling dear to another) go unexploited. Figure Three illustrates the so-called "Law of One Price" by comparing short-term fluctuations in the price of copper on different countries' commodity exchanges.

Furthermore, in the absence of a change in the "real" prices of importable goods relative to exportables, real trade flows remain unaffected. A fall in the currency will not improve the balance of trade. Nor will it provide relief to political pressure for protectionist policies.

Should the value of the dollar decline, by say ten percent, prices of U.S. goods would still remain constant, relative to foreign goods. U.S. dollar prices, however, would have to increase ten percent more than foreign currency prices in order to maintain "real" prices (and therefore the terms of trade) unchanged. Official price indexes move slowly, suggesting that nominal price levels are inflexible, but this is largely a result of using "list" or contract prices instead of spot transaction prices in compiling the indexes. Moreover, official statisticians use interpolations, seasonal adjustment and other techniques which impart artificial smoothness to the data. As a result, it would take time for inflation created by a currency depreciation to show up fully in official price statistics, even if nominal prices were truly flexible.

In sum, the "global monetarist" view implies that:

(1) devaluation will not improve the real trade balance (or alleviate protectionist pressure);

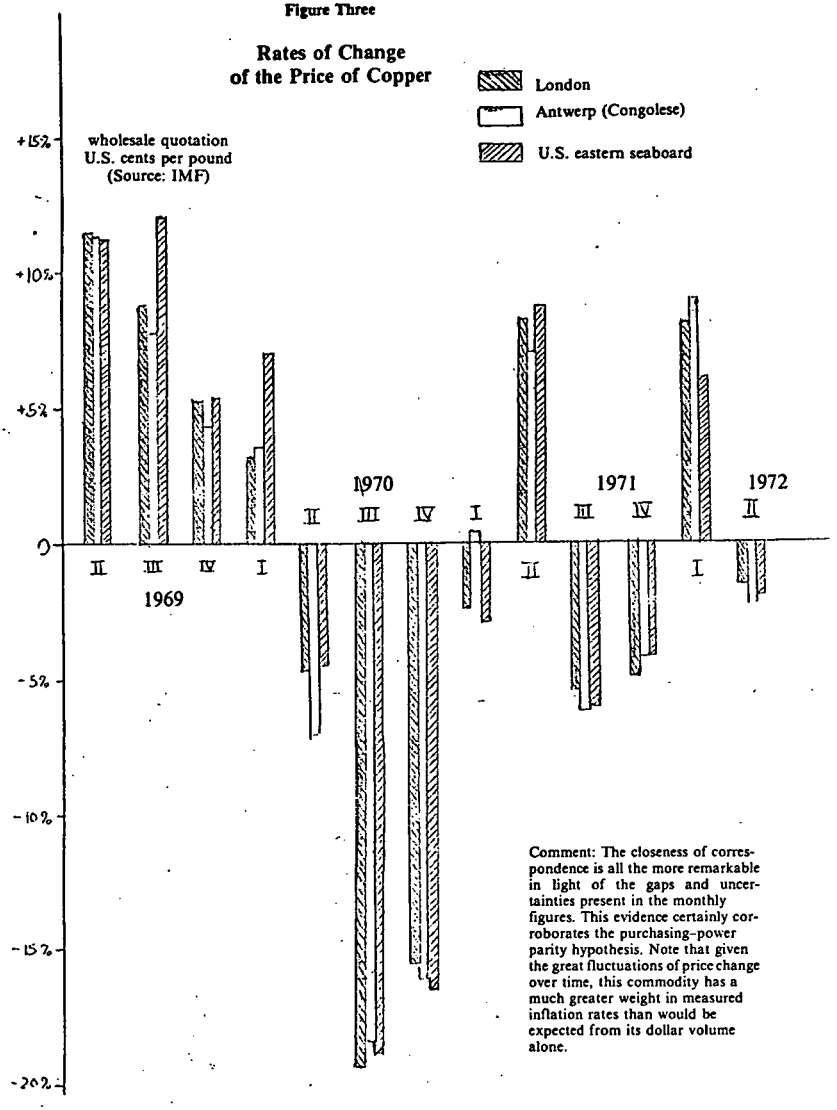
(2) a devaluing country will suffer inflation relative to the rest-of-the-world average in an amount approximately equal to the percentage devaluation.

Earlier work has documented the fact that trade balances, on average, do not improve when currencies are allowed to depreciate.[19] We have also published evidence that currency depreciations and inflation go hand in hand.[20] Figure Four summarizes this evidence by comparing changes in the foreign value of the dollar with inflation in the U.S. relative to seven foreign countries. Considering the major differences in coverage and composition of countries' price indexes, the statistical fit is excellent. In spite of the inevitable "noise" in the price indexes, more than 70% of the differences in inflation rates are accounted for by exchange-rate shifts. Moreover, the correspondence between relative inflation and currency depreciation, although not perfectly contemporaneous, is almost one-for-one.

An even more dramatic illustration is provided by a bilateral comparison of Canada and the United States. Figure Five shows the almost perfect correspondence between wholesale prices in the two countries when the Canadian index is converted to U.S. dollars. There is a one-for-one impact of shifts in the exchange rate on comparative price levels. Moreover, this one-for-one impact has been in effect as far back as the 1860's.

Combining these relationships with inflation's impact on tax brackets and output,[21] implies the chain of consequences listed above for the declining dollar.

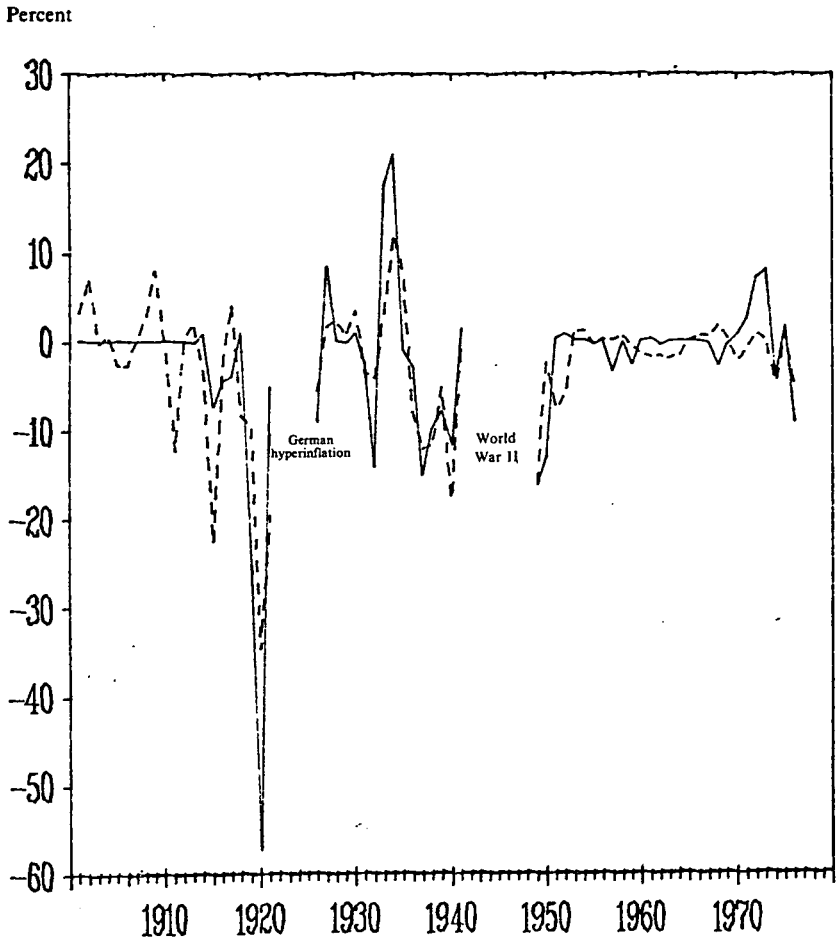
Figure Three



Comment: The closeness of correspondence is all the more remarkable in light of the gaps and uncertainties present in the monthly figures. This evidence certainly corroborates the purchasing-power parity hypothesis. Note that given the great fluctuations of price change over time, this commodity has a much greater weight in measured inflation rates than would be expected from its dollar volume alone.

Figure Four

Relative Inflation vs. Exchange-Rate Changes United States *vis a vis* Six Foreign Countries 1901–1976



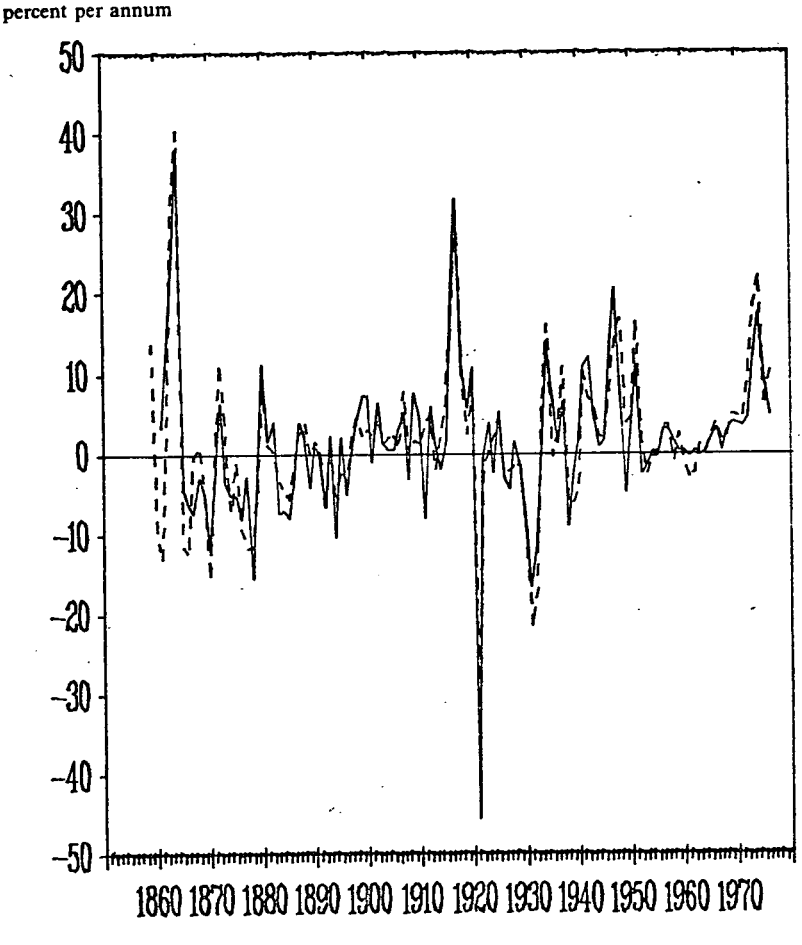
_____ change in U.S. exchange rate ($ per average foreign currency unit)

_ _ _ _ _ _ U.S. inflation minus average foreign inflation

Source of data: Moon H. Lee, "Excess Inflation and Currency Depreciation", doctoral dissertation, Graduate School of Business, University of Chicago, 1974. Updated by H.C. Wainwright & Co.

Figure Five

Wholesale Price Inflation in the United States and Canada both measured in U.S. dollars



Note: Canada adopted its decimal dollar currency in 1858.

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THE CHAIN OF EVENTS BEHIND TODAY'S ECONOMY

This economic framework sets up a chain of reasoning that casts light on the immediate economic situation in the United States. The chain begins with a government-endorsed decline of confidence in the U.S. dollar. Each event in the chain thereafter leads naturally to the next event:

(1) a fall in the value of the dollar against major currencies, amounting to 14% between September and the beginning of July on an output-weighted basis;

(2) a surge in the inflation rate, frequently reaching double-digit levels in wholesale prices since September;

(3) higher marginal rates of taxation, therefore, on individual incomes and economic profits;

(4) a resultant weakening of incentives to work, produce and invest, especially for those areas of the economy which are already being taxed at the highest rates;

(5) lower growth rates of output, employment and capital investment;

(6) higher unemployment;

(7) acceleration in the growth of the transfer payment "wedge".

The chain of events is displayed in Figure Six. As the diagram shows, the chain does not end with lower output and higher unemployment. Increased taxation of activity that is already taxed in the prohibitive range implies a loss in government revenues, and therefore a larger deficit. Since deficits must eventually be financed by additional government revenue, the expected policy response sooner or later is a still higher rate of taxation. Higher unemployment also triggers a demand for more government aid to the weakest sectors of the economy, and increased transfer payments. These additional expenditures will enlarge the deficit further and imply higher future taxes.

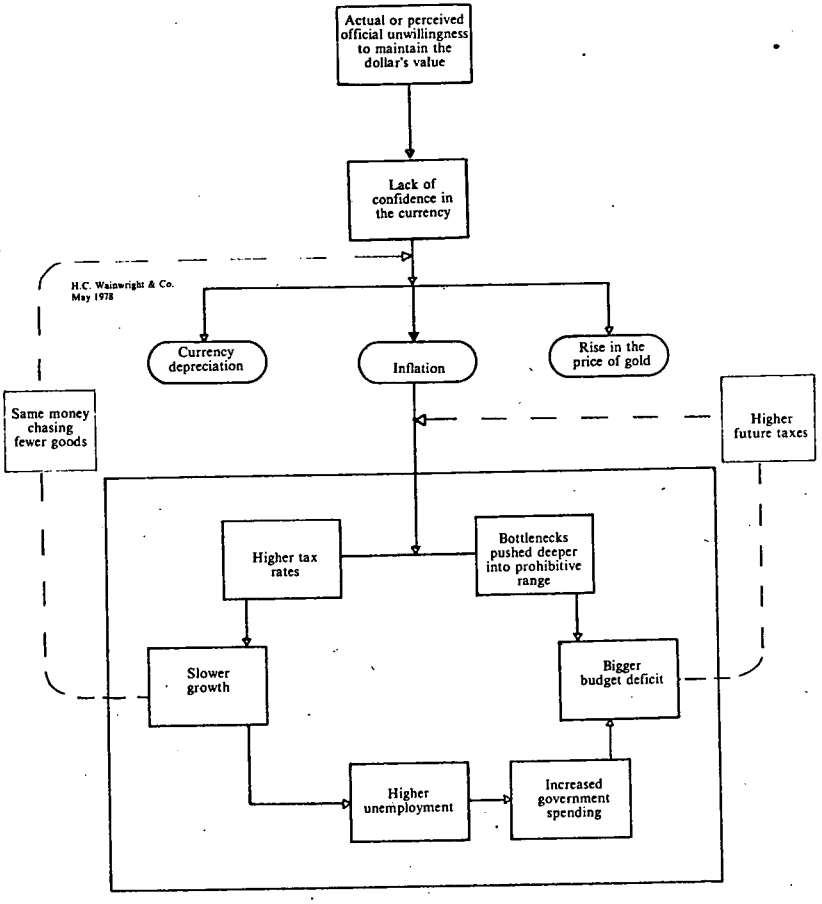
These contractionary effects on output can also "feed back" to the health of the dollar. Slower U.S. growth diminishes the importance of the dollar in the world, and weakens the demand for dollars. It also facilitates further inflation, because the same supply of money is chasing after fewer goods.

Through all of these channels (and perhaps others) a vicious circle is set in motion. Inflation and its impact on tax brackets leads through conventional policy responses to still higher tax rates, and so on. And diminished output leads to continued inflation. In other words, the "feedback effects" of a tax-induced decline in the economy intensify the causes that triggered it.

Although this logic is sobering, there is a silver lining. Circularity is the most virulent aspect of the problem; yet it provides a clue to overcoming the economic malaise. Once the direction of the economy's momentum is switched (for example, by currency stabilization or a well-designed tax cut), the "feedback effects" start to work positively. Carefully focused improvements in government policy, such as the tax cuts of the 1920s and 1960s, can set a "snowball" in motion. The analysis thus portrays a narrow line between expansion and decline, as evidenced most recently by the V-shaped recession of 1974-75. The key to getting rid of stagflation is to adopt policies that push the economy across this line from decline to expansion.

Figure Six

The Vicious Circle of Depreciation and Recession



THE OUTLOOK FOR INFLATION

Policy discussions in Washington center around broad price indexes such as the WPI and CPI, rather than the more volatile prices of raw materials and of commodities traded on centralized exchanges. The WPI and CPI are constructed or interpolated from list or contract prices. This means that they are usually a few months behind the course of actual events.

Thus, the impact has only just begun to show up in offical wholesale price statistics. As mentioned earlier, although spot transaction prices seem to be affected immediately, official indexes are smoothed and take a considerable time to adjust completely. After a shift in the exchange rate, historical data indicate that only about one tenth of the full price level change shows up in wholesale prices within one month. The greater part of the price level change has shown up by the time a year has elapsed, but a significant portion takes more than a year to show up. In the absence of contrary economic forces, large wholesale price level rises should, therefore, be expected to continue in the United States for some months to come unless the dollar should reverse its decline.

Figure Seven sets these data in perspective. The dashed line at the top traces the cumulative depreciation of the dollar relative to an average of eight major foreign currencies (weighted by output[22]). The lower bold lines trace the increases in the WPI and CPI over the same period. If history is a reliable guide, the two bold lines will eventually catch up to the dashed line. And this analysis may well be conservative, since it assumes an underlying inflation rate in the rest of the world of zero. So we may have seen in the indexes little more than half of the inflation that is predicted to occur.

INFLATION OVERSEAS

Currency changes are like a seesaw. If some currencies, such as the U.S. and Canadian dollars, depreciate relative to a world average, others must appreciate. The same reasoning that predicts high inflation rates in North America implies low inflation rates in these other countries.

Between September and April, the largest currency gains have been for the Swiss franc (25% relative to the dollar), the Japanese yen (20%), and the Dutch guilder (13%), and the German mark (11%). Accordingly, these countries have been experiencing very low or even negative inflation rates as Table 5 documents:

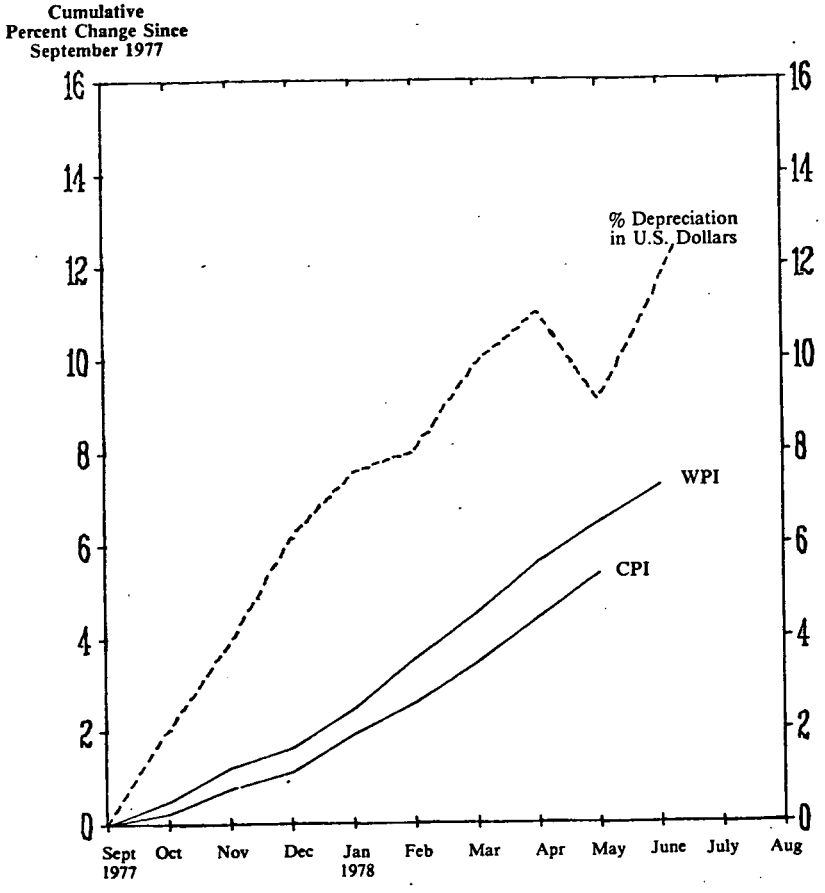
Table 5

Currency Changes and Relative Inflation

		since September 1977:		
country	latest month	% appreciation relative to dollar	% change in wholesale prices	% change in prices relative to U.S. prices
Switzerland	Apr.	24.7%	-4.4%	-10.3%
Japan	Apr.	20.3	-0.5	- 6.2
Germany	Apr.	13.8	+0.6	-5.0
Holland	Jan.	8.6	+0.1	-2.6

Figure Seven

U.S. Inflation: How Far It Has To Go



------- % depreciation of the dollar relative to an average of eight major currencies

WPI _____ wholesale price index (all commodities), seasonally adjusted

CPI _____ consumer price index (all urban dwellers), seasonally adjusted

For the Canadian economy, the implications of the 1977 currency changes are even more serious than for the United States, because the Canadian dollar has itself depreciated 4½% *vis a vis* the depreciating U.S. dollar. This development alone has been sufficient to bring inflation in Canada back to double-digit levels. In my own view, vigorous enforcement of the Anti-Inflation Board's incomes policy would serve only to disguise these price pressures or drive them underground.

THE OUTLOOK FOR GROWTH

As mentioned earlier, we have in recent years seen a negative correlation between the amount of inflation and the growth rate of the economy. This relationship, reported in a short paper by Arthur B. Laffer about eighteen months ago,[23] is updated in Figure Eight. On the average, a 1% increase in U.S. inflation has been associated (either immediately or with a short lag) with a 1 to 1½% decrease in real growth. Figure Nine shows the similar relationship between inflation and growth in Canada. The Canadian relationship too is statistically significant.

The most recent U.S. episode in which a surge in inflation was accompanied by a slowing of growth was 1973–4. From the first quarter of 1973 through the first quarter of 1975 prices rose some 21%, or a rate of 10% per annum. Simultaneously, real GNP fell 5%, or a rate of -2½% per annum. The most severe recession of the postwar era occurred. Perhaps exceptional factors were at work in 1974. However, the experience is consistent with the logic outlined above: inflation averaged about 5 percentage points above "normal" (4–5%) during this two-year period, while growth averaged about 7 percentage points below normal. A detailed look at Figure Eight suggests that three extra percentage points of inflation occurring over a period of a year may be sufficient (other factors remaining the same) to bring growth from a "normal" 4% to zero during that period. Logically, however, a recession is more likely if inflation is rapid than where an equal increase in the price level occurs gradually.

In this context, the 14% fall in the dollar's value (in as short a period as nine months) is a serious event. Allowing for the fact that a large part of it would be expected to show up as a deceleration of inflation overseas, the above calculation still implies that a substantial shortfall in real growth is predictable in 1978.

The actual behavior of output in recent months has been obscured to some degree by the coal strike and the severe winter. Nevertheless, it is possible to detect a slowing in the underlying rate of growth since the third quarter of 1977. Indeed, real GNP failed to grow at all in the first quarter of 1978.

Figure Eight

Rate of Inflation vs. Real GNP Growth
annualized percentage changes, seasonally adjusted

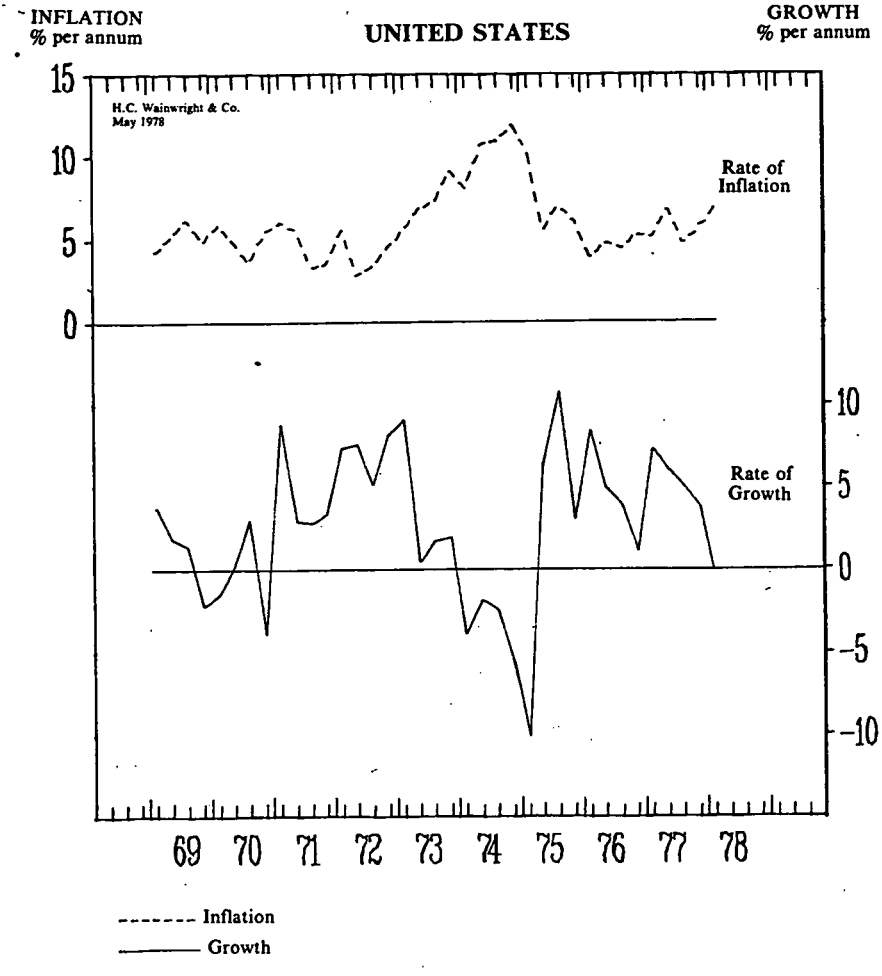
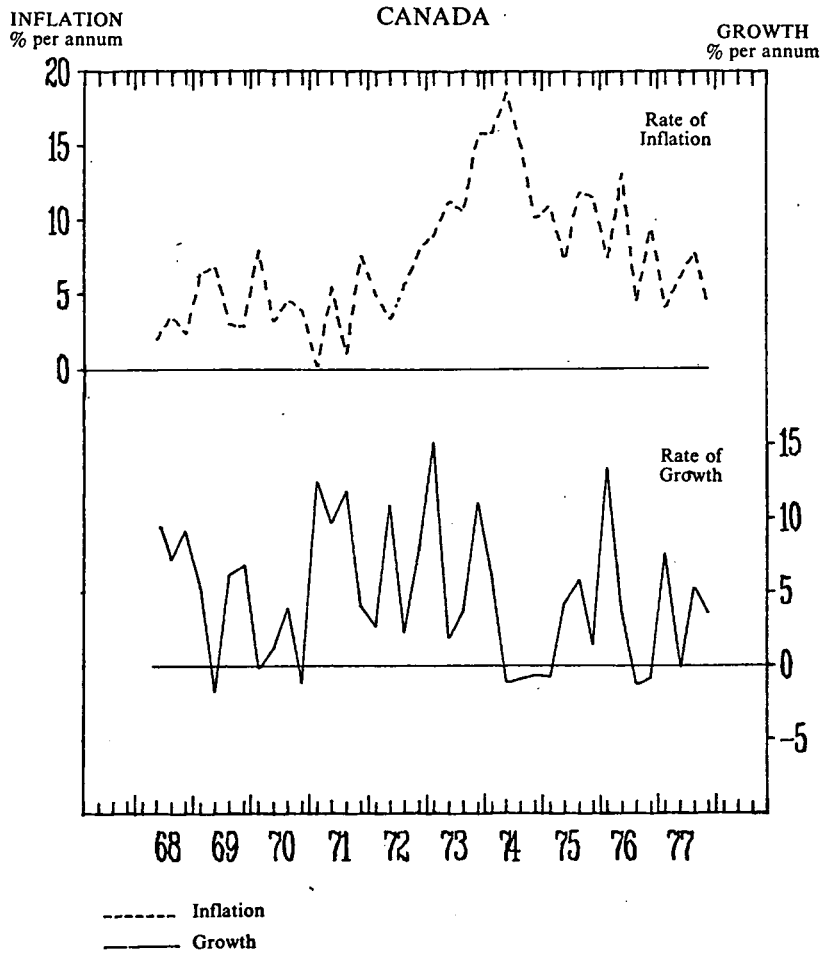


Figure Nine

Rate of Inflation vs. Real GNP Growth
annualized percentage changes, seasonally adjusted



A better measure of the output of the market economy would exclude the salaries of government employees (which are officially counted as "output"). It would also exclude items which are extrapolated rather than measured, such as the imputed rents on owner-occupied homes, and depreciation on housing, plant and equipment. And it would exclude the output of U.S. enterprises overseas, but include the output of foreign enterprises operating within our borders. The resultant, known as net domestic business product (NDBP), appears to be a useful substitute for GNP in this regard. It is noteworthy that real NDBP declined in the first quarter — a more disappointing result than that for the total GNP (see Table 6). Second quarter data are unavailable at this writing, but after a "snapback" in April, economic indicators for May and June have been disappointing so far.

Table 6

Indicators of U.S. Real Growth
(seasonally adjusted annual rates)

	III-1977	IV-1977	I-1978
real gross national product	5.1%	3.8%	-0.0%
real net domestic business product	5.5	4.4	-1.0

GNP and NDBP include inventory accumulation, which in part reflects the fact that firms save money by keeping output smooth in the face of fluctuating demand. The rate of slippage in real NDBP less inventory accumulation was 3.4%.

The logic and the evidence point to a slowing in the U.S. economy in late 1977 and the first half of 1978. If the dollar should decline further, and without favorable policy developments in Washington, the combination of inflation and recession appears probable.

The currency seesaw implies symmetrically opposite results for foreign countries whose currencies have appreciated. The decline in inflation documented above is bullish for economies like Japan and Switzerland, where effective tax brackets rise with price level trends as in the United States. Signs are already evident of a pickup in these economies since last summer. Real GNP in Japan grew at a10%rate in the first quarter.

The impact of inflation on real output in Canada is moderated by the fact that the personal income tax system has been "indexed" to the cost of living. But indexing is incomplete, and does not in any case extend to capital gains or the corporate profits tax. In sum, inflation leads to a diminution of employment and production incentives in Canada just as it does in the United States. The impact of recent currency value changes on Canadian output will likely be more severe than in the United States.

Sweden, whose currency has fallen more than 4% relative to the U.S. dollar since September, is also in a state of stagflation. The Swedish government expects only 1% real growth this year, while consumer prices rose at a 25% annual rate in the first quarter of 1978.

OUTLOOK FOR THE TRADE BALANCE

Figure Ten illustrates how successfully trade balance fluctuations can be explained without resort to theories of an undervalued or overvalued dollar. When the United States grows rapidly, more resources must be allocated to capital formation and less to consumption, or high growth could not be sustained. This can be accomplished by importing more goods and services from overseas. Our growth thus benefits the rest of the world by providing a market to foreign producers. At othertimes, the mechanism operates in reverse. Other countries grow more rapidly than the U.S., helping to maintain their flow of final goods and services by increasing their imports from the United States.

This view of the blance of trade as a kind of "shock-absorber" is fully consistent with historical evidence. Countries whose growth is accelerating tend to move toward deficit in their trade accounts, and countries whose growth is decelerating tend to move toward surplus. The relationship is highly significant statistically, and explains 80 to 90% of trade balance fluctuations during the postwar period.[24] Based on the foregoing analysis of the prospects for growth in the United States, a significant fall in our trade deficit (especially relative to accelerating economics such as Japan) appears likely in the absence of policy changes.

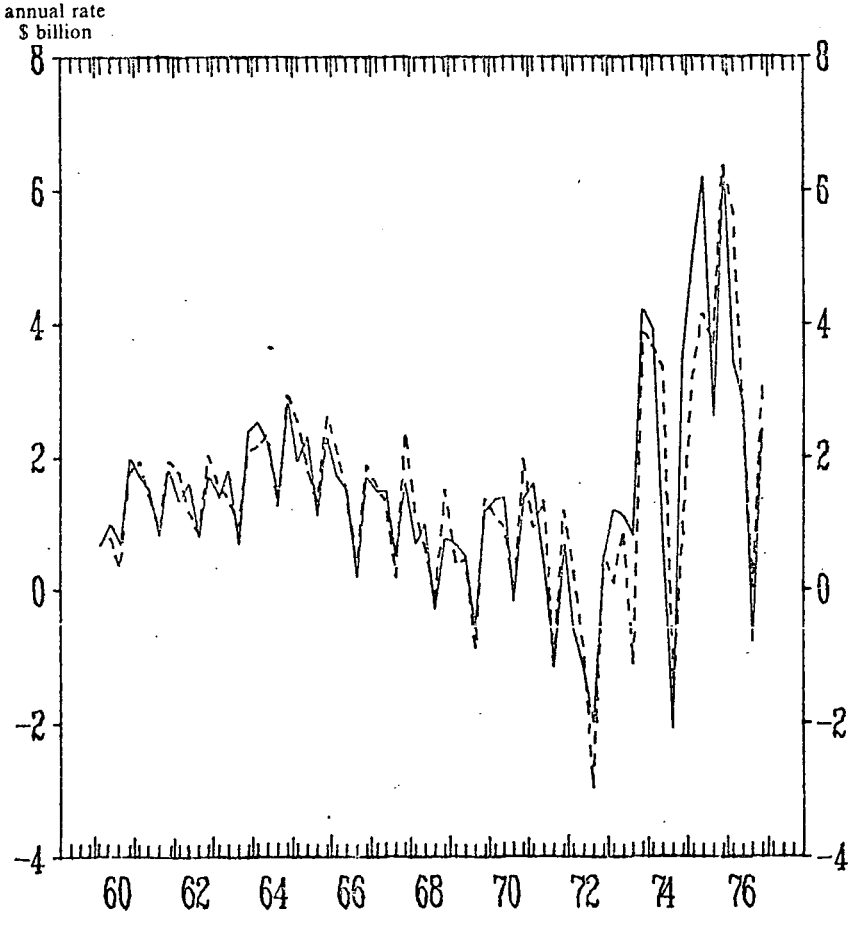
EVENTS SINCE MID-APRIL

Characteristically, the stock market looks beyond immediate economic circumstances into the future as far as events and contingencies can be foreseen. The fall in stock prices last fall and through the first quarter of 1978 seem entirely logical in the light of the declining dollar and its consequences. Indeed stock market declines have been closely correlated with the falling dollar on a contemporaneous basis.

The mid-April rally in stock prices (a jump of 3.9% in the S&P 500 index in the space of a single week) does not necessarily mean that the threat of recession has passed — especially since the gain has not been sustained. Historically, the market has bottomed out several months before the trough in real GNP. And the absolute level of stock prices remains extremely low. It could simply be that the stock market, as usual, saw past the valley in front of it through to whatever lies beyond.

Figure Ten

U.S. Current Account Balance
(not seasonally adjusted)



——— Actual

------- As predicted one quarter ahead from the difference between U.S. and foreign real growth

Source: Marc A. Miles, Rutgers University

Although supporting evidence is inconclusive, possible reasons for the market rally (and for the subsequenct decline) can be identified. Each of these hypotheses fits closely into the economic framework laid out above, and adds further background for evaluating the prospect of a recession.

I. Changing Government Policy Toward the Dollar

Only six months after Treasury Secretary Blumenthal's world tour talking down the dollar, recent Administration actions demonstrate a change in attitude.

The Treasury's announced intention to sell some $300 million worth of gold in a series of six monthly auctions is of far greater significance than official sources will admit. Though Washington apparently still will not countenance "direct" support operations in the foreign exchange market, from an economic point of view intervention in the gold market will serve just as well. The basic task is to soak up unwanted dollars, and it is of lesser consequence whether the government does this by selling foreign exchange ("direct" support), selling debt securities (reverse open-market operations by the Fed), or selling gold. Nor does it make much difference, in an integrated world money market, whether the dollars are extinguished domestically or overseas.

Any and all purchases of dollars by the federal government should logically raise the value of the dollar, diminish inflationary pressure in the United States, and reduce the price of gold. Indeed, the mere announcement or anticipation of such purchases should trigger these changes immediately. Even a relatively small program of dollar purchases can have large effects if it is seen as a definite change in policy. This is one interpretation of the events of mid-April, which included a 1.6% rise in the dollar and a $10 fall in the price of gold over a period of a single week. Since May, the dollar and the stock market have fallen back, and the price of gold has recovered.

II. Rising Chance of Making the Tax Structure Rational

As mentioned earlier, the tax structure plays a major part in the contractionary chain of events resulting from inflation:

(a) the general level of tax rates (the magnitude of the "wedge") in both the present and the expected future;

(b) the extent to which sizeable segments of the economy (e.g., the working poor, high-income families, and business capital) face marginal tax rates in the "prohibitive range"; and,

(c) the extent to which inflation automatically increases tax rates and pushes the economy deeper into the prohibitive range.

All of these factors play a major role in the economy's present malaise. Federal tax changes whic would alleviate the problem are, respectively;

(a) a deceleration in federal spending (not yet foreseeable);

(b) a lessening in progressivity for upper income groups and/or a reduction in taxes on capital gains and corporate profits;

(c) an indexing of the individual tax structure and/or a move to permit businesses to deduct depreciation and cost-of-goods-sold expenses on a replacement cost basis.

During April, there seems to have been a steady improvement in the chances of a number of proposals (including the Kemp-Roth and Stockman bills) which address these issues. At the same time, there has been a deterioration in the prospects for President Carter's plan, which seeks *de facto* to increase progressivity for upper income groups.[25] The most dramatic change in mid-April was a breakthrough within the Ways and Means Committee in support of an amendment sponsored by Reps. Steiger, Jenkins, Jones, and Frenzel.[26] This amendment, which now stands a good chance of passage, would roll back the maximum federal rate on capital gains from nearly 50% to 25%.

POLICY CONCLUSIONS

If the economic framework outlined in these pages (and documented in the references cited) is anywhere near correct, some far-reaching conclusions follow:

1. Policy makers should abandon their adherence to demand-oriented economic thought. It takes supply as well as demand to drive the economy, and neither will be forthcoming without adequate incentives.

2. The sharp division between domestic and foreign economic policies is illusory, and the existence of two separate policy making apparatuses may foster detrimental conflicts. The United States is for economic purposes fully integrated with the rest of the world.

3. U.S. policy should seek to keep the dollar as stable as possible with respect to time-tested standards of value, Exchange rate fixity would be a step in the right direction. Returning to the gold standard would be better. However, exclusive reliance upon a single commodity may be risky. The best policy would be to fix the price of the dollar in terms of a market basket of goods. Such a policy could all but eliminate inflation, and would restore the dollar to its former position as lynchpin of the international monetary system.

4. In the absence of a sound dollar policy, the tax structure should be indexed against inflation. Tax rates should be cut sharply, especially on activities of the upper reaches of the "Laffer Curve" such as business capital and low-skilled labor. Such reforms would greatly stimulate the U.S. economy, and thereby the world economy generally. And they would raise more, rather than less, tax revenue to finance spending commitments.

5. Policies to improve the trade balance by protecting domestic industry from foreign competition serve primarily to "beggar our neighbors" and ourselves. They should be replaced by a policy of *laissez-faire* toward the balance of trade. If the economy is healthy, the balance of payments will take care of itself. Imbalances can and do perform a useful function by allocating capital efficiently among countries growing at different rates.

FOOTNOTES

1 Different weighting methods or more comprehensive indexes may give somewhat different figures. For example, the U.S. dollar fell 15½% using 1977 gross domestic products as weights.

2 Arthur B. Laffer, "The International Monetary Outlook", H.C. Wainwright & Co. Economic and Investment Observations, Novermber 22, 1977.

3 R. David Ranson and Charles E. Babin, "Investment in Plant and Equipment: Part I: Diagnosis and Outlook", H.C. Wainwright & Co. Economic Study, October 17, 1977.

4 R. David Ranson, "Toward a Broader Picture of the Budget Deficit", *Policy Review*, Winter 1978, reprinted by H.C. Wainwright & Co., March 22, 1978.

5 R. David Ranson, "The Falling Dollar", H.C. Wainwright & Co. Economic and Investment Observations, January 6, 1978.

6 Jude Wanniski, "Taxes, Revenues and the *Laffer Curve*", *The Public Interest*, Winter 1978, reprinted by H.C. Wainwright & Co., January 25, 1978.

7 R. David Ranson, "A Micro Approach to the Macro Economy: Some Investment Implications", Seminar on the Analysis of Security Prices, University of Chicago, November 1977.

8 Arthur B. Laffer, "Prohibitive Tax Rates and the Inner-City: A Rational Explanation of the Poverty Trap", H.C. Wainwright & Co. Economic Study, June 27, 1978.

9 R. David Ranson, "The Relationship between Trade Balances and Exchange Rate Changes", H.C. Wainwright & Co. Economic Study, February 16, 1977.

10 Charles W. Kadlec and Charles E. Babin, "Investment in Plant and Equipment, Part II: The Role of Liquidity", H.C. Wainwright & Co. Economic Study, April 28, 1978.

11 Arthur B. Laffer, "A New Perspective on Inflation and Unemployment", H.C. Wainwright & Co. Economic and Investment Observations, January 17, 1977.

12 Since that date, earned income has received more favorable treatment, but this is not included in the data shown here.

13 For a clear and concise description of how these techniques work, the reader is referred to Sidney Davidson and Roman Weil, *Fundamentals of Accounting*, Hinsdale, Ill.: Dryden Press, 1975

14 In general, economists prescribe that any asset should be valued at the *opportunity cost* of sacrificing it — that is, the amount of money it would take to restore the loss.

15 James F. Nasuti and Charles A. Nickerson, "Capital Gains Should Be Indexed", *Wall Street Journal*, editorial page, August 12, 1977.

[16] Arthur B. Laffer, "Substitution of Monies in Demand: The Case of Mexico", H.C. Wainwright & Co. Economic Study, May 27, 1977.

[17] Marc A. Miles, "Discussion" in *International Exchange Rates and the Macroeconomics of Open Economies, Papers and Proceedings of the American Economic Association*, New York: December 1977. *American Economic Review*, May 1978, pps.415–16.

[18] Arthur B. Laffer, "The Practical Implications of Global Monetarism", H.C. Wainwright & Co. Economic and Investment Observations, May 23, 1977.

[19] Arthur B. Laffer and R. David Ranson, "Some Practical Applications of the Efficient Market-Concept", H.C. Wainwright & Co. Economic Study, July 6, 1977.

[20] *Ibid.*, p.21.

[21] Arthur B. Laffer, "A New Perspective on Inflation and Unemployment", H.C. Wainwright & Co. Economic and Investment Observations, January 17, 1977.

[22] In an integrated world economic system the effects of exchange rate shifts are felt not only between countries, but within countries. The relevant weight for a given country therefore logically should be based on the amount of domestic as well as international trade in which that country engages.

[23] Arthur B. Laffer, "A New Perspective on Inflation and Unemployment", H.C. Wainwright & Co. Economic and Investment Observations, January 17, 1977.

[24] Arthur B. Laffer and R. David Ranson, "Canada, The United States, and the Rest of the Developed World: A Study in the Integration of Markets", in *Policy Formation in an Open Economy*, University of Waterloo, Ontario, 1972. Volume I, pp.27–55.

[25] Arthur B. Laffer, "President Carter's Tax Plan", H.C. Wainwright & Co. Economic and Investment Observations, January 30, 1978.

[26] William A. Steiger R–Wisc., Ed Jenkins D–Ga., James R. Jones D–Okla. and Bill Frenzel R–Minn. See "Stupendous Steiger", *Wall Street Journal* Review and Outlook, April 26, 1978, p.22.

Representative MITCHELL. Thank you.

Gentlemen, I must say that this has been generally depressing testimony in terms of the substance. Certainly we have heard some very, very what appears to be radical remedies to help out in this situation.

Let me start out with the first radical suggestion and that is in quotes, the first radical remedy you suggested. You talked about a uniform tariff across the board at about 10 percent.

Mr. Norris, I think, in his testimony indicated that that would not be a good position for him. I wonder how you justify a recommendation like that when past history will reveal that when any nation has done that kind of thing, that the action has been reciprocated by other nations. We reach a point when there is just conflict.

Mr. BERNSTEIN. First, I think I better qualify myself as a liberal on international economic policy. I was the chief technical adviser of the U.S. delegation at Bretton Woods. I was the principal author of the report for President Truman entitled "Trade and Tariff Policy in the National Interest."

There is nothing in my background which makes me anything other than a classical free trader.

The question that I put to you is the following: The reason for free trade is that it will raise real incomes. The United States exports its goods in which it has the greatest comparative advantage, the greatest relative efficiency. It imports goods in which it has relatively less efficiency. Now, all this is true in a free trade world if exchange rates reflect relative prices and costs. Under such circumstances, I am for 100-percent free trade.

But we have a floating exchange rate system in which the exchange rates of the dollar for the European currencies and the yen have moved on about five or six occasions, up and down by 15 or 20 percent in the course of a few months. The last big movement was from September of 1977 to March 1978.

As prices and costs in the United States don't rise by 20 percent or 15 percent in a 6-month period compared to, say, those in Germany and Japan, the movement in the exchange rates is not corrective of the differential rate of inflation.

If that is so, then the dollar must have been overvalued at the beginning of the period, or it may have been undervalued at the end of the period.

Let me explain it this way. The rate of inflation of prices and costs over a 6-month period is, let's say, 5 percent in the United States and 1 percent in Germany. A 4-percent depreciation of the dollar relative to the D-mark from September 1977 to March 1978 would have offset the greater rise in our prices and costs.

Now, as we had a bigger depreciation of the dollar, we know one of two things must be true. The dollar may have been overvalued at the beginning of the period or——

Representative MITCHELL. May I interrupt you for a moment?

I followed your testimony very closely when you addressed this problem area before. Maybe I didn't put my question pointedly enough.

My question, I hope, very specifically, is: If your recommendation, your proposition about a uniform tariff, 10 percent across the board,

should somehow or other obtain, what is to prevent other nations from imposing that same kind of tariff, just locking us into an untenable situation?

Mr. BERNSTEIN. First, I wanted to make sure that you understood——

Representative MITCHELL. I think I did from your earlier testimony.

Mr. BERNSTEIN. Right. Well, as a matter of fact, I don't think there would be any harm in a 10-percent tariff by the others, too, because the same is true in reverse trade with them.

I am arguing the following: It may be that you won't get the greatest gains in trade if there were a uniform 10-percent tariff in all the great trading countries.

I agree with that. You won't get the maximum. You won't get the maximum, either, with a zero tariff, if exchange rates move up and down by 20 percent.

You won't get the maximum because when the dollar is overvalued the United States will be importing goods that we could actually produce more efficiently, and we will be prevented from exporting goods which we can export very efficiently.

As we already have an implicit bounty on imports when a currency is overvalued, the tariff would neutralize this in whole or in part. In my opinion, a 10-percent tariff would reduce by half the distorting effects on trade when the dollar exchange rates for major currencies move up or down by 20 percent. It won't maximize the gains from trade but it will prevent the harm done when the dollar is at the peak and at the bottom.

This is a great deal for a country like the United States, which is now running a trade deficit of $45 billion a year on a balance of payments basis.

Representative MITCHELL. Mr. Norris and Mr. Ranson, do you care to comment on this?

Mr. RANSON. Yes. My comment would be extremely brief. Two wrongs don't make a right.

The reason we have crazy trade balance behavior is not in our failure to impose tariffs on our imports. What we have is an overtaxed economy, both here and overseas, and to impose more taxes on top of that is going to make the problem worse.

Representative MITCHELL. Mr. Norris, I think you have already addressed this issue in your testimony.

Do you want to elaborate?

Mr. NORRIS. I agree with Mr. Ranson. I do not think that import fees are the solution to our problems. They are only a palliative, and they certainly will not rectify the structural imbalances that exist, some of which Mr. Ranson has mentioned.

Representative MITCHELL. I will put one more question, and then I will turn to you, Senator.

I think all three of you gentlemen indicated, to varying degrees, that you foresee a rather long series of U.S. trade and current account deficits.

I think essentially that was the testimony of all three of you.

Mr. BERNSTEIN. I would like to qualify it for myself.

Representative MITCHELL. Does that mean, then, that you foresee a relatively long period of dollar instability in America?

Mr. BERNSTEIN. Congressman Mitchell, I think it would be correct for me to say the following:

First, some trade deficit for the United States in the kind of world we are living in today is not inconsistent with a good pattern of international payments primarily because we have large net income, net receipts, from investments and services.

Representative MITCHELL. Let me amend it, then, by saying a large, an enormous deficit.

Mr. BERNSTEIN. The present deficit?

Representative MITCHELL. Yes.

Mr. BERNSTEIN. Congressman Mitchell, I think the present deficit will come down. I have already explained why I think the last quarter of 1977 and the first quarter of 1978 represented a hurry-up exporting to the United States by Germany and Japan to get through Customs before the Customs valuations are based on a greater depreciation of the dollar.

So, there will be a correction. I also believe that the problem really isn't that Germany and Japan aren't growing so much, except that some of their exporters do regard the U.S. market as an excellent place for taking up the slack in home demand and don't expect to get anything like the average profits they would get at home.

But I have another reason for thinking that we aren't going to have this big trade deficit indefinitely. I am looking for a substantial improvement by the end of the year, but I also would make the point that if we don't have a substantial improvement, I think we are going to have a great demand, public demand, in the United States to do something about it.

The dollar can't keep falling indefinitely because the other countries like Japan, for example, keep insisting that they have to have a trade surplus.

It is their economy which is structurally out of balance, not ours.

Representative MITCHELL. Then you are reasonably optimistic that there might be a change——

Mr. BERNSTEIN. A considerable improvement this year.

Representative MITCHELL. Mr. Norris.

Mr. NORRIS. I don't see the scope for improvement that perhaps you are suggesting.

As I mentioned in my prepared statement, we do not think that growth in the rest of the world will pick up relative to the United States over the next several years.

Representative MITCHELL. Back to my original question. You foresee a protracted period of American dollar instability then; is that correct?

Mr. NORRIS. Under unchanged conditions, yes.

I would say that I do expect the trade deficit to improve, which would imply less dollar instability than we have seen over the last 6 to 9 months.

I would like to make an additional comment. Even if there were the foreign demand for our goods, I am not sure that we have the capacity to supply that demand. The studies of Mike Evans, president of Chase Econometrics, have shown that the U.S. economy is operating much closer to potential or full capacity than is generally thought to be the case, which partly explains the return to double-

digit inflation levels here in the United States. Hence, if there were increased foreign demand, producers simply would not have the resources to ship abroad, even if they had the incentive to ship abroad, which they don't.

Hence, slow growth in the rest of the world is one factor for our relatively pessimistic outlook for U.S. exports, but this is exacerbated by the fact that the economy is operating much closer to full capacity.

Now, any short term measures such as import fees or contractionary policies that are designed to reduce imports are what they are described as, merely short term.

What we need are incentives to raise our productivity levels much closer to Japan and Western Europe.

Unless we have higher productivity gains, our goods will suffer from a further loss in the international price competitiveness, thus continuing the long-term depreciation of the dollar.

Representative MITCHELL. Mr. Ranson, I would assume your answers to be, based on your three-part premise, that you would predict continued American dollar instability?

Mr. RANSON. I think it entirely depends on what policies we follow. Our present policy is what the Wall Street Journal has correctly termed "malign neglect." We could stop the instability of the dollar overnight by following a sound dollar policy, such as I have described.

Representative MITCHELL. Senator Javits.

Senator JAVITS. There is one question I would like to deal with, because we have posed a great debate in this country on these three juxtapositions.

Mr. Norris, you said we are approaching the point where we don't have the capacity to supply the demand, even if we had it, from abroad.

You pointed out, and I agree with you, that when you join the lack of productivity increase in the United States with the uneconomic price which we are paying for oil, you have almost insurmountable barriers.

Now, as I see the three positions, and juxtapose them, the question is, How much is there in the American market per se, and how much is there in the foreign market?

The third question is, What can be done to stimulate either the domestic market or the foreign market? Where should we make our choice?

As I see the heavy incentive which a major tax cut procedure would take, the theory is that we will materially increase domestic investment and domestic opportunities simply by making money available.

It is a question of the volume of money which is available. Is that essentially the issue, Mr. Ranson?

Mr. RANSON. I don't believe we necessarily have to make a choice. It is part of my premises that the whole world is the only closed economy, and that the United States is an open economy. What we do to stimulate our own economy can't help but stimulate the rest of the world at the same time. What they do to stimulate their economies can't help but stimulate us, too.

Unfortunately, what mainstream wisdom says is stimulative often has the opposite effect. I think a tax cut in the United States would stimulate our growth and the world's growth, too.

Senator JAVITS. But the main point you make is that we would stimulate our own growth, right?

Mr. RANSON. I have no particular reason to emphasize the United States more than the rest of the world, really.

Senator JAVITS. And you think it would translate itself so quickly to the world that we could reap the benefits of it in terms of exports, as well as in terms of increased domestic demand?

Mr. RANSON. I think the effects would be quick, yes.

Senator JAVITS. As quick abroad as at home?

Mr. RANSON. Yes. I don't think it would be quicker in one place more than the other, not in any predictable way.

Senator JAVITS. I understand, Mr. Bernstein, who is a very old friend, that what you really want to do is allow the forces of domestic growth an opportunity to regain their strength, as it were, by immunizing them, at least for a little time, from the adverse impact which we seem to have in our insatiable thirst for imports.

Mr. BERNSTEIN. Senator, I think the problem is a little more complicated than our insatiable thirst for imports. Incidentally, I would like to see a greater flexibility in exchange rates, and if that had been our subject, I would have explained how I would go about it.

I do agree that a major element in the achievement of greater stability of the exchange rate for the dollar is to have less inflation in the United States and, of course, an increase in productivity, given the same prices and wages, would help to hold down inflation, of course.

But it isn't so much, Senator, that we have an insatiable taste for imports.

We have an insatiable taste for goods. These goods could be either domestic or foreign. It is my opinion that in fact some of our competitors abroad confronted with a home market that is not growing as much as they are accustomed to, find the American market a very attractive place in which to sell their output.

I think in order to do this they do take smaller profit margins on their sales here than, of course, we do, but even lower than they would normally expect.

In the case of at least some of the countries, the governments help them along in this by keeping an undervalued currency.

If you stop to think that the dollar exchange rate for the yen was lower, that is to say, the yen was worth less in dollars in September 1977 than it had been in March 1973, you get some notion of how much intervention by the Japanese monetary authorities was involved.

So Senator, it isn't that we have an insatiable appetite for imports. It is that in fact we have a big demand for goods at home, and they are selling in this market, in some cases with Government help, at prices which are not competitive with ours even at higher exchange rates for their currencies.

If we had fluctuating exchange rates, Senator, in which the movement of the dollar rates of exchange against the currencies of the Group of Ten in Switzerland, say, Japan and Germany, matched the differential rate of inflation, I would be for 100 percent free trade.

It is my opinion that we are all exaggerating, especially the U.S. Government and my friend on the left here, the relative importance of differential growth of income—income, not productivity, because

productivity enters into price—as distinguished from competitiveness through price.

I think we are not going to get the Japanese to increase their rate of growth as long as they can have a trade surplus with the United States of this massive size.

Why should they? They don't have to undertake the budget deficits. We undertake them. They don't have to ease monetary policy. We do it.

What is more, most of the goods they sell to us, like automobiles, are from a sector which is not more efficient than ours. Our automobile industry has had the second or third biggest rate of increase in productivity of any major industry in the United States in the past 10 years.

If you want the Japanese economy to grow faster on the basis of domestic demand then I think one way to stimulate them is to say, "We are not underwriting employment and production in Japan by continuing this sized trade deficit with you."

Senator JAVITS. I appreciate that. Of course, there is much sympathy for that view in the United States, and hence what are called the orderly marketing agreements. I must say that we have to look down the road a little bit, and it seems to me that we are all suffering from, and Mr. Norris pointed that out, is too small and overall demand for all the industrial goods which we are within reason capable of turning out, and right now we are taking in each other's washing and we are not endeavoring to expand materially the consuming capacity of people who are way, way down the scale on the grounds that that is very good business, and excellent markets.

Mr. Ranson wants to do that simply by encouraging more money in the pockets of those who are able to invest and expand and show initiative, those who are way under par.

Of course, that hasn't been the history. The history has been that we materially increase the standard of living of the 85 percent of Americans who are not in the poverty level, and it does not have major economic, which includes social, consideration of those conditions in the world, and opening up new markets and making a more equal position in the world and closing the gap somewhat over what it has been.

I gather your prescription, Mr. Norris, would be major capital investment in the United States, stimulate that, to increase productivity, and capacity, coupled with major intelligent investment to expand materially markets, mainly abroad.

You have a billion people going to bed every night hungry. Do I understand you correctly?

Mr. NORRIS. Yes, absolutely. I do believe that there is much that can be done here in the United States, both from the point of view of stimulating supply, particularly stimulating our productive capacity.

I travel to Europe quite frequently, and each time I go I am receiving fewer deutsche marks, French francs, or Swiss francs in exchange for my dollars. Yet when I go out to a shop or have breakfast or dinner, I find that the prices in local currency have also risen substantially.

I am astonished at retail prices in foreign countries. Approximately 2 years ago, I was in Oslo, and had a so-called continental breakfast, which included coffee and toast, and I paid it in Norwegian kroner, but when I translated it back to dollars, it cost me approximately $7.

I am not suggesting that we export continental breakfasts to Europe, but certainly our goods—the prices of our goods, our automobiles, clothing, machines, our raw materials, are amazingly competitive in European Markets, and the same for Japanese markets.

We do need greater incentives to export.

There is a problem, as I mentioned, that of supply capacity. Even if the foreign demand were there, at least in the manufactured goods area, I am not sure we would be able to take advantage of it. The obvious area for potential growth without incurring inflationary pressures would be the agricultural sector.

It would also make a lot of sense to reduce subsidies to the U.S. farm sector, and reorient our policies to export our excess supply. I think it is rather myopic policy to tell farmers not to plant wheat or corn, when, as you say, there are a billion people going to bed every night hungry.

I don't know the appropirate prescription for increasing agricultural exports. It is an area where we have high productivity, and it is an area we should take advantage of.

The question you ask about present policy and what should be done and where should the stimulus be made, I think that was referring not only to the United States but to Western Europe and Japan.

It is a question that can be answered either from American or a foreign point of view.

From an American point of view, obviously, we want to get the Japanese and Germans to grow as fast as they can without incurring serious problems on the inflation front.

Some would say that the Germans could allow their inflation rate to go from 3 to 5 or 6 percent without causing serious problems.

That is from a foreign point of view. However, if you are a German, you would look at the postwar history and say that your country went through an enormous inflationary spiral, and thus even the suggestion of tolerating higher inflation from a level that Americans consider low, that is, 3 percent, is not politically acceptable.

In addition, if I were a German, I would point to the fact that the total deficits of the Federal, local and State governments will approach approximately $60 billion deutsche marks, which is 4½ to 5 percent of GNP in Germany.

So, if I were in the position of Helmut Schmidt, I would tend to resist efforts to go for a big stimulus.

However, by the same token, Germans are part of a world economy. They need foreign markets to sell their excess supplies, and if the Germans are statesmen they would accept a higher stimulus.

The problem is that the Germans want other countries to stimulate as well, and I think that getting back to the United States here, I would strongly suggest to President Carter to go to Bonn with the understanding that he will push for a moderate fiscal package if, and only if, the Germans and Japanese offer something in return.

If we are the only ones who stimulate this winter, this will lead to a further rise in U.S. demand, a further rise in imports, and a further substantial depreciation of the dollar.

On the other hand, if Japan introduces more fiscal stimulus, and I want to point out that there isn't any country in the world—among the major industrialized countries—that has stimulated its economy

as much as Japan in terms of higher spending during the past 2 years.

The problem is that there is absolutely no chance of an investment boom, and the rapid rise of the yen has offset the fiscal stimulus.

But if the Germans and Japanese would agree to some stimulus, I think that they would import more, and the United States would export more. Thus, the whole world would be better off than if we only stimulate our economy this winter without any concomitant stimulus in the foreign countries.

Senator JAVITS. I would add only one note to that, and I believe in order to stimulate we are going to have to have inducement, something that people in business can look down the road and see where you are going to establish broader markets.

They know that these markets, and I think Mr. Bernstein is right about this, are untenable politically. It can't go on, and that is true.

Mr. BERNSTEIN. May I make an observation on what this gentleman has just said?

It is an observation, too, on the policy of the United States. We have found it a very attractive, easy explanation of our trade deficit to say that it is due to the fact that other countries aren't stimulating their economy as much as we are.

If it were true that this is the major explanation, and that prices don't enter into this thing to any great extent, then we are really in trouble, because I cannot see why the United States would have to undertake a continued depreciation of the dollar because of the unwillingness of the other countries to stimulate their economy, at the same time holding down the growth of our output and employment and intensifying our inflation.

Why would the United States do that? How could the United States give in to such a policy and give in to it, as this gentleman suggests, so that a deficit of this magnitude is going to continue for several years.

I would say it isn't going to continue, because either it will correct itself through the instrumentality I mentioned, that is, exchange rate changes, or I think you will find an inevitable demand in the United States that we do something about keeping out some of these excessive imports.

Mr. NORRIS. Since Mr. Bernstein pointed his comments at my remarks, I would like to answer them.

Stimulus is not the only answer to our problem. In fact, in the last section of my prepared statement, I have pointed out that the U.S. share of world markets—of the markets of major industrialized countries—actually declined in 1977 by a significant amount.

Total import volume of the major industrialized countries increased by at least a modest amount in 1977, but our exports to those same countries decreased by a substantial amount.

In terms of price competitiveness—I don't have the graphs, with me—our studies have shown we are much more price competitive than the Germans, French, Italians, British, or the Japanese.

The problem is that the European currencies have appreciated against the dollar when in fact some of them, at least the Italian lira, pound sterling, French franc should have depreciated against the dollar.

I think if we are going to have this negative reaction to foreign goods here in the United States, it is going to cause serious problems, in the world economy. I might add that this negative reaction anticipated by Mr. Bernstein will not come from consumers. The consumers are the ones who are buying the Japanese cars, Japanese cameras, and German cars and appliances.

You are not going to get a negative reaction from the mass of U.S. consumers. They are the ones who are attracted to the efficiency of Japanese products, to their reliability, and to the aftersale service.

The reaction is going to come from the political arena, from the labor unions, and affected industries.

Now, that is not the mass of America. I think Americans are being penalized by the rapid appreciation of the yen and the DM because they are not benefiting from the higher productivity gains in those countries, and I think it is an extremely pernicious policy on the part of the U.S. producers to say, "Aha, the Japanese have raised their car prices. Let's raise our car prices, also."

This is exactly what has happened here in the United States, which is commonly described as sympathetic price increases.

So, stimulus alone is not the answer. We are competitive in world markets, but we need a much broader program, stimulating export growth. The foreign markets are there, but we haven't tapped them.

The emphasis should be on increasing our exports, instead of the debilitating program of reducing imports.

If we decrease our imports by 10 percent, we will have a worldwide recession in 1979 or 1980. That is unequivocal, and I make this statement in hope that some of the more enlightened Members of Congress will prevent such shortsighted action from being taken.

Senator JAVITS. Congressman Mitchell, I have to leave.

Representative MITCHELL. I do have one area that I want to address briefly. Mr. Bernstein has indicated that the floating exchange rates may be effective in helping us with our balance of payments.

Mr. Ranson on the other hand has indicated he does not believe that this is a benefit. That is sort of contradistinctive.

I would like to hear from Mr. Norris on this. We have gotten two points of view on the effectiveness of the floating exchange rate.

I don't think you addressed that, and I would like to hear from you on that.

Mr. NORRIS. I was hoping I would have that opportunity. Mr. Ranson's analysis has shown that 50 percent of the time devaluation improves a current account balance. That should be evidence that there has been success in the past, even though in 50 percent of the cases current account balances worsened.

I would say that the situation where the trade accounts worsened, in most of those cases governments had irresponsible monetary and fiscal policies that worked against the depreciation of the currency.

It is a classic Keynesian concept that the trade balance will not deteriorate unless you have offsetting fiscal stimulus under the case of an appreciating currency. With a depreciating currency, you will not benefit unless you have offsetting deflationary policies.

Hence, I think devaluations do work, but they have to be backed up by appropriate monetary and fiscal policies.

We have experienced a significant devaluation of the dollar here in the States. Keynesian theory would say deflate, curb domestic demand by implementing restrictive policies. But we can't do that here in the States.

We are the world's largest economy and to do so would cause a worldwide recession.

I feel we can tolerate a large deficit. However, we cannot tolerate larger ones than we have had, and I think we should shoot for a lower trade deficit.

I say that we can tolerate a large deficit because there are no other money or capital markets that even come close to the size of the U.S. money and capital markets.

So, we do have the capacity to tolerate a reasonably large deficit.

We should opt for an improvement, but through exports rather than reduced imports.

In my prepared statement, I have prepared charts on price competitiveness, and in the case of Japan, prices have increased in dollar terms relative to the United States and relative to an average for the rest of the world.

The problem is that in the period between 1973 and mid-1977, Japanese export prices relative to the rest of the world in dollar terms declined substantially. In this period Japanese export prices were 20 percent lower than the average for the rest of the world because the yen was a grossly undervalued currency.

So, you are seeing now a correction from that imbalance, and I think the yen will have to appreciate against the dollar by at least another 10 percent before prices reach an equilibrium level.

Now, you might say, "Why has the Japanese trade account improved at the same time the yen has appreciated?"

One reason is that Japanese goods are still competitive. Another reason is that each time the yen has gone up, their import prices have declined by anywhere from one-half to three-quarters of the percentage increase in the yen.

So, the yen has gone up by 35 or 40 percent, and there is a concomitant decline in import prices by half to three-fourths of that magnitude.

Since approximately half of Japanese producers' costs are accounted for by imported raw materials, the lower level of import prices has led to a decline in wholesale prices relative to what would have occurred if there were no appreciation of the yen. Lower import prices have offset higher unit labor costs to a large extent.

The second factor which accounts for the large and growing trade surplus in Japan is the fact that Japan still has an enormous amount of excess capacity, particularly in autos, television, iron, and steel. Partly because of its concept of lifetime employment, production levels have been kept up artificially high, and this has put pressures on producers to export their excess supplies.

I do think the higher value for the yen is already affecting Japanese exports. We have second-quarter trade data for Japan that indicate export volume fell at an annual rate of 15 to 20 percent.

The trade balance has increased in dollar terms because its export prices in dollars relative to its import prices have increased.

So, members of the Carter administration continue to focus on the nominal dollar-based trade account in Japan, when in fact the real

balance has declined, which is attributed to the higher value for the yen and to a lesser extent the orderly marketing agreements that have been arranged.

I think that there is no question in my mind that if you had American consumers being confronted with a $6,000 Toyota relative to a $4,000 Ford, there would be a greater preference for U.S. automobiles.

The problem is that U.S. producers have increased the prices of their small cars along with the price of Japanese cars. I think this is extremely shortsighted policy on the part of U.S. auto producers, and it results from decisions made perhaps as far back as the 1950's, when U.S. producers decided to give up the small car market to foreign producers.

Now that foreign producers have gained a very large percentage of the U.S. market, U.S. producers are claiming they are not equipped to produce small cars efficiently, and they won't accept the lower profit margins.

I think this is part of the problem that Mr. Ranson has pointed out, that there are sympathetic price increases, and this has led to an overall higher rate of inflation here in the United States.

Representative MITCHELL. Thank you very much.

Gentlemen, thank you. It has been a long morning, and a part of the afternoon, but we thank you very much for your testimony. The committee will stand in recess until tomorrow.

[Whereupon, at 12:45 p.m., the committee recessed, to reconvene at 10 a.m., Thursday, July 13, 1978.]

[The following information was subsequently supplied for the record:]

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington D.C., August 7, 1978.

HON. RICHARD N. COOPER,
Undersecretary of State for Economic Affairs,
Department of State, Washington, D.C.

DEAR SECRETARY COOPER: On behalf of the Members of the Joint Economic Committee, I would like to thank you for testifying on the International Outlook and the prospects for the Bonn Economic Summit.

I am sorry that my schedule did not enable me to attend the hearing on July 12. I did enjoy your testimony, albeit in written form, and appreciated your usual thoughtful approach to international problems.

Your testimony came just before the Bonn Economic Summit. To make our hearing record more complete, I would welcome any thoughts or comments you might have on the results of the Summit itself.

Thank you again for contributing so much to our Midyear Review of the International Economy.

Sincerely,

RICHARD BOLLING, *Chairman.*

UNDER SECRETARY OF STATE FOR ECONOMIC AFFAIRS,
Washington, D.C., August 28, 1978.

HON. RICHARD BOLLING,
Chairman, Joint Economic Committee,
Congress of the United States.

DEAR MR. CHAIRMAN: Thank you for your letter of August 7 and your generous comments about my testimony before the Joint Economic Committee on July 12. I welcome the opportunity to add some comments on the results of the Bonn Summit.

First, the agreement by Summit participants to combat international terrorism in the form of aircraft hijacking is a significant achievement which I did not foresee in my July 12 testimony. Several participants commented that this agreement alone made the Summit worthwhile. Representatives of the Summit countries are now at work on the implementation of this agreement.

The strategy of "concerted action" to which I referred in my testimony was well reflected in the Summit Declaration. The Declaration characterizes the total effect of the economic strategy agreed in Bonn as "greater than the sum of its parts." The participants thus recognized that the problems of growth, inflation, payments imbalances, trade, energy and relations with developing countries can be addressed in a concerted fashion, through mutually reinforcing actions, much more effectively than they can be addressed alone.

The participants also emphasized that each country would have to contribute in a distinct way. Since the U.S. has been growing at a relatively healthy rate, President Carter stressed our determination to reduce inflation and our dependence on imported oil. Chancellor Schmidt and Prime Minister Fukuda, whose countries have low inflation rates and large current account surpluses, stressed the willingness of Germany and Japan to take appropriate measures to expand domestic demand. It was heartening to us that the other Summit participants, and especially Germany and Japan, were able to be as specific on measures to increase domestic demand as they were. I would emphasize that these commitments stress government policy instruments rather than performance targets, the achievement of which is often affected by forces beyond the control of individual governments. These specific commitments would not have been possible without the President's firm statement on inflation and energy.

The discussion of energy was not confined to expected U.S. actions. All participants emphasized cooperative efforts to develop energy sources, including renewable sources, in both the industrialized democracies and the developing countries. The importance of coal and the continued development of nuclear energy in the context of our non-proliferation goals were also recognized. The role of private investment in the energy field was stressed.

The Bonn meeting clearly brought us closer to agreement in the Multilateral Trade Negotiations. We would have liked to be even further along than we are now. Nevertheless, the "Framework of Understanding" issued on July 13 in Geneva by the U.S. and other delegations reflects the advanced state of work on tariff reductions and on several international codes to reduce non-tariff barriers to trade. The participants committed themselves to conclude successfully the detailed negotiations, including those key areas such as agriculture, subsidies and safeguards where major decisions are needed, by December 15. The participants also endorsed the renewal of the OECD Trade Pledge and the OECD guidelines on adjustment policies. These latter guidelines represent a significant step forward from the London Summit Declaration. They discourage defensive policies which prevent structural change and encourage the acceptance and facilitation of such changes over time. Adherence to these guidelines will promote long-term growth and diminish pressures for short-term protectionist responses to change.

International monetary issues were an important part of the Summit agenda. The participants recognized that exchange rate stability can only be achieved by attacking the fundamental problems which cause instability. At the same time they pledged to intervene to the extent necessary to counter disorderly conditions in the exchange markets. We are very concerned by the sharp decline of the dollar since the Summit and are examining what additional actions might be appropriate. Discussion at Bonn of proposals for the European Monetary System was limited because a specific and detailed program has not yet been developed. We told our European allies that we welcome measures which will contribute to greater European unity but that we must reserve judgment on any specific scheme for closer monetary cooperation until we can consider the specific elements.

The Declaration explicity recognizes the growing interdependence of developed and developing countries. This fundamental truth was also implicitly recognized in the discussion of the various functional areas. The impact of alternate policies on non-participating countries, including developing countries, was in all cases considered. Furthermore, the participants committed themselves to increasing the flow of financial assistance and other resources for development. The need for intensified and improved bilateral and multilateral assistance in the energy field is specifically stressed. The Declaration also calls on the developing countries,

particiularly the more advanced among them, to prepare for the responsibilities which will accompany their enhanced role in the world economy.

The Bonn Summit was a positive step, but only one step, in what all participants recognize to be a long and difficult process. As the Bonn Declaration puts it, "these are long-term problems which will only yield to sustained efforts". This process, of which periodic Summits are only a part, will fail unless it is supported by the public and legislatures of each country. Cooperation between the Administration and Congress in energy, foreign assistance and other key areas is critical if the U.S. is to assume its share of the leadership in finding solutions to global economic problems.

Sincerely,

RICHARD N. COOPER.

RESPONSE OF EDWARD M. BERNSTEIN TO ADDITIONAL WRITTEN QUESTIONS POSED BY REPRESENTATIVE BOLLING

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C., August 7, 1978.

Mr. EDWARD M. BERNSTEIN,
Connecticut Avenue, N.W.,
Washington, D.C.

DEAR MR. BERNSTEIN: On behalf of the Members of the Joint Economic Committee I would like to thank you for testifying on the International Outlook as part of the Midyear Review of the Economy.

I am very sorry that my schedule did not enable me to attend the hearing on July 12. I had very much looked forward to your testimony and enjoyed savoring it through written form.

In order to complete the record, I would appreciate a written response to the following questions:

(1) You suggested a possible 10 percent across-the-board tariff as a means of avoiding the distortions of an overvalued dollar brought about by sharp fluctuations in the international value of the dollar. Would you couple the tariff with some form of internationally agreed upon export subsidy? What would you propose for the occasions when the dollar was undervalued?

(2) You raise the possibility that the U.S. may take unilateral action to restrict imports if dollar depreciation does not succeed in reducing the trade deficit. What form would you expect U.S. action to take? If such restrictions were unavoidable, what form would be the least damaging to the world economy?

(3) In the course of your testimony, you alluded to your own thoughts on how to make the current regime of flexible exchange rates more flexible still. I would be very interested in learning the outlines of your plan. Would it entail some form of IMF surveillance? And if so, is there not some danger of slipping back into a Bretton Woods' world where pressure is only exerted on the deficit countries?

Thank you again for contributing so much to our Midyear Review of the International Economy.

Sincerely,

RICHARD BOLLING, *Chairman.*

EMB (LTD.),
RESEARCH ECONOMISTS,
Washington, D.C., August 14, 1978.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR CONGRESSMAN: I was glad to be able to give my views to the Joint Economic Committee as I believe that we must act more positively on our trade problem and the exchange rate. I expect to discuss your questions fully in a paper I am writing which will be completed before the end of this month. In the meantime, I offer these brief answers.

1. With the sharp fluctuations in exchange rates, the dollar is alternately overvalued and undervalued. When the dollar is overvalued, it has the same

effect as a bounty on imports and a tax on exports. When the dollar is undervalued, it has the effect of a tax on imports and a bounty on exports.

My proposal for a 10 percent across-the-board tariff is intended to deal only with the import effects. Its purpose would be to keep out uneconomic imports—those that come in only because of the overvaluation of the dollar and which could be produced with relatively greater efficiency in the United States if exchange rates reflected relative costs. It would thus enable domestic producers of manufactured goods to supply the home market in those industries in which they would be competitive under appropriate exchange rates. The 10 percent tariff would not apply to foodstuffs and raw materials which are imported from countries whose currencies are more or less tied to the dollar.

The 10 percent across-the-board tariff would also apply when the dollar is undervalued or properly valued on the basis of relative costs. Under such conditions, it would keep out imports of manufactured goods in which other countries have a comparative advantage. The effect, therefore, would be to reduce U.S. real incomes to the extent that import goods are replaced by less efficiently produced domestic goods. The loss in real income from excluding economic imports when the dollar is not overvalued, however, would be considerably less than the loss in real income that is now incurred from the displacement of domestic production by uneconomic imports when the dollar is overvalued.

My suggestion does not involve subsidies for U.S. exports when the dollar is overvalued. There is a strong international consensus against export subsidies, but not to the same extent against tariffs. It would not be in the interest of the United States to offer export subsidies, even when they could be justified by an overvalued dollar. There is no substitute for having appropriate exchange rates that reflect relative costs and fluctuate only in response to changes in underlying economic conditions. The 10 percent across-the-board tariff would not correct the distortions caused by overvalued and undervalued currencies. It is intended merely to minimize the disruption they cause.

2. In my opinion, the continuation of the U.S. trade deficit on the present scale is prejudicial to the economic interests of the United States and destructive of the international monetary system. Output in the United States is about 1 percent less in real terms than it would be with a trade deficit better suited to the structure of the U.S. economy. To maintain output and employment, the Administration proposed tax reductions at the beginning of 1977 and 1978 about equal to the increase in the trade deficit in the preceding years—$18.4 billion in 1976 and $21.7 billion in 1977. It is apparent that the public is unwilling to depend any longer on a budget deficit to offset the reduction of output and employment caused by the trade deficit.

The international monetary system is not functioning in the way that had been expected when the system of floating rates was adopted. The advocates of floating rates believed that changes in exchange rates would automatically adjust the balance of payments. In fact, the adjustment process is more complex than that, even with floating exchange rates. Nevertheless, the deterioration of the U.S. trade balance by over $40 billion in two years could not have occurred unless the corrective effect of floating rates was deliberately offset by action of some surplus countries. In the case of Japan, this action took the form of supporting the dollar—not merely to avoid disorderly exchange movements, but to prevent the appreciation of the yen necessary for reducing its enormous current account surplus.

There is more to the increase in the U.S. trade deficit to $31.1 billion in 1977 and $19.2 billion in the first half of 1978 than foreign intervention to maintain an undervalued currency as a means of securing an unfair advantage in international trade. Foreign producers confronted with weak home demand found the large U.S. market a very favorable place in which to increase their exports to maintain production. For this purpose, they cut their profit margins on exports far below what they would normally be and below what U.S. producers could match. The U.S. trade deficit was undoubtedly much affected by the slower growth of output in Europe and Japan, but only to a modest extent because their demand for imports from this country lagged. Mainly their slower growth affected our trade deficit by inducing an extraordinary increase of exports from those countries to the United States.

The United States cannot wait for the surplus countries of Europe and Japan to expand their economies as a means of reducing our current account deficit. As long as their own output and employment is maintained by an enormous trade

surplus, they have little reason to undertake expansionary fiscal and monetary policies which they regard as inflationary and for which there is little domestic support. If the trade balance is not quickly reduced to a tolerable level in the next few months, I believe the United States should impose restrictions on imports. The least harmful restriction would be a surcharge on imports applicable only to the surplus countries. There may be some practical difficulty in applying discriminatory tariffs, although it may be legally possible. The other method would be to apply quantitative restrictions, preferably based on trade shares before the enormous increase in imports from the surplus countries. An import surcharge for the purpose of restricting excessive imports is not the same as an across-the-board tariff to keep out uneconomic imports resulting from alternate overvaluation and undervaluation of the dollar.

3. Under present conditions, there is no substitute for floating exchange rates. They can have the desired effect as a means of adjusting imbalances in international payments, however, only if the fluctuations are in response to changes in underlying economic conditions. Unfortunately, even when changes in exchange rates are initially caused by a deterioration in the trade balance, an accelerated inflation in one country relative to others, or a decline in relative interest rates, they may become excessive if they give rise to capital movements in anticipation of the depreciation of some currencies and the appreciation of others.

It is true that in the long run the only way to achieve relative stability in exchange rates is through domestic policies that slow the inflation of prices and costs. At best that is a gradual process. In the meantime, the monetary authorities should do what they can to moderate excessive fluctuations in exchange rates. They can succeed in this, however, only when the exchange market is ready to accept their guidance. That does not seem to be the case now. Until there has been marked improvement in the trade balance, intervention by the monetary authorities may absorb tremendous amounts of foreign exchange without having much effect on dollar exchange rates.

When the trade deficit has been substantially reduced, the United States should adopt a policy of moderating excessive fluctuations in the dollar without trying to keep exchange rates in a predetermined range. Such a policy would involve no intervention if the fall in the dollar exchange rates for the major currencies were gradual. If the decline became rapid, it would be allowed to go on for a time before the monetary authorities intervened. If the rapid decline continued, the monetary authorities would intervene, not to halt the decline but to slow it. Thus, the exchange market would be able to signal its views on exchange rates, but not to impose such a rapid decline as to create expectations of a further depreciation of the dollar. When the decline ends and the dollar rises, the monetary authorities would follow a similar policy, slowing but not halting the rise in the rate. Intervention in the exchange market should be undertaken only in collaboration with the countries concerned and after consultation with the International Monetary Fund.

I enclose a paper I wrote in May. My views on maintaining orderly exchange arrangements are stated more fully in the last section.

EDWARD M. BERNSTEIN.

Enclosure.

THE TRADE DEFICIT, CAPITAL MOVEMENTS, AND THE FLOATING DOLLAR

SUMMARY AND CONCLUSIONS

Floating exchange rates did not prevent the United States from having a very large deficit on current account nor has the depreciation of the dollar as yet succeeded in restoring the payments position. In 1977, the current account deficit was $20.5 billion. From the end of September 1977 to the end of March 1978, the dollar depreciated by an average of 9.2 percent against the currencies of the Group of Ten and Switzerland. Nevertheless, the deficit on current account increased to about $9.0 billion in the first quarter of 1978. Since then, the dollar has appreciated by an average of 3.2 percent against these major currencies; but that is due to a backflow of funds rather than an improvement in the current account.

Fluctuations in the current account are almost entirely due to changes in the trade balance. Between 1975 and 1977, the trade balance shifted from a surplus of

$9.0 billion to a deficit of $31.5 billion. The main reason was the enormous increase of imports of petroleum and products (66.5 percent), foods, feeds and beverages and industrial supplies and materials (50.6 percent), and other imports (53.6 percent), mainly manufactured goods. Between 1975 and 1977, exports increased by only 12.5 percent, and nearly all of that was due to higher prices. In part, the large increase in the trade deficit was due to the greater recovery of output in the United States than in other industrial countries. Mainly, however, it was because U.S. producers were unable to compete with German and Japanese producers in the domestic market or in world markets.

The large increase in the deficit on current account made it difficult to induce an offsetting net inflow of capital in 1977 without large changes in exchange rates. The U.S. deficit with OPEC was $16.9 billion last year, while the net inflow of capital from them was $6.1 billion. Thus, OPEC members transferred about $10.8 billion of their current account surplus from the United States to other areas. Net capital flows to Canada and from Japan about matched the current account balance with them. The net U.S. capital outflow to all other countries, however, was far greater than the current account balance and the excess was lent by them to other areas, mainly by foreign branches of U.S. banks. Most of the inflow of capital to finance the U.S. current account deficit came from Western Europe ($29.2 billion). As the depreciation of the dollar discouraged private capital inflow, the funds came mainly from official institutions.

One reason for the large fluctuations in dollar exchange rates is that too much reliance is placed on changes in exchange rates as a means of adjusting the balance of payments, without the help of fiscal and monetary measures. Under such conditions, speculation will cause the dollar to depreciate rapidly, as it did in late 1977 and early 1978. The United States and Germany have agreed to cooperate to counter disorderly conditions in the exchange market which have recently been marked by excessively rapid changes in exchange rates. The United States will sell SDRs and is prepared to draw on its reserve position in the IMF, if necessary, to intervene in the exchange market. The use of SDRs and drawings on the IMF to acquire D-marks involves a sharing of exchange risks by the United States and Germany.

APPROPRIATE BALANCE OF PAYMENTS

For every country there is a balance of payments which is appropriate for its economy and to which the structure of its production has been adapted. The appropriate balance for a country must fit into a pattern of international payments acceptable to other countries and suited to the structure of their economies. To achieve such a balance of payments, the exchange rate for each country's currency would have to be related to its prices and costs in a manner that will induce a level of exports and imports of goods and services that will result in the appropriate surplus or deficit on current account. With such exchange rates, countries would export the goods and services in the production of which they have a comparative advantage and import the goods and services in which they have a comparative disadvantage. Moreover, an appropriate balance of payments requires the surplus or deficit on current account to be matched by a net outflow or inflow of capital without extraordinary financing by the monetary authorities. To achieve this, relative rates of interest and profits in the major financial centers must be adjusted to induce such capital flows.

The system of fixed parities broke down because the large industrial countries were unable to follow the policies necessary for maintaining an acceptable pattern of international payments. On the other hand, it was argued that floating exchange rates would bring about automatic balance of payments adjustment regardless of the causes of the surplus or deficit on current account. Thus, a rise of prices and costs in one country relative to those in others would cause an increase of imports of goods and services relative to exports, an excess supply of its currency in the exchange market, and a depreciation of its currency. The change in exchange rates would offset the relative rise in prices and costs, maintain the country's competitive position, and restore the balance on goods and services. Similarly, an adverse change in reciprocal demand, including out-of-phase cyclical developments, would be neutralized by a change in exchange rates that would induce an increase of exports of goods and services equal to the increase of imports.

FOREIGN EXCHANGE VALUE OF THE DOLLAR, CURRENCIES OF THE GROUP OF 10, 1973–78

Foreign currency units per dollar, end of period

	1973				1974				1975				1976				1977				1978	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	May 23
Belgium	40.08	36.05	36.90	41.32	38.95	38.01	39.23	36.12	34.66	35.06	40.00	39.53	39.05	39.70	37.61	35.98	36.61	36.04	35.74	32.94	31.48	33.23
Germany	2.838	2.425	2.420	2.703	2.523	2.555	2.653	2.410	2.345	2.355	2.662	2.622	2.538	2.574	2.437	2.363	2.389	2.338	2.307	2.105	2.023	2.130
Netherlands	2.944	2.620	2.535	2.824	2.685	2.652	2.704	2.507	2.395	2.440	2.736	2.689	2.687	2.736	2.569	2.457	2.492	2.473	2.457	2.280	2.164	2.277
France	4.541	4.105	4.250	4.708	4.764	4.823	4.741	4.445	4.216	4.040	4.536	4.486	4.669	4.740	4.927	4.970	4.969	4.919	4.903	4.705	4.581	4.667
Sweden	4.500	4.110	4.215	4.588	4.392	4.380	4.460	4.081	3.942	3.940	4.508	4.386	4.401	4.451	4.283	4.127	4.334	4.399	4.833	4.670	4.589	4.682
United Kingdom	0.404	0.387	0.414	0.430	0.418	0.418	0.429	0.426	0.415	0.455	0.490	0.494	0.522	0.561	0.596	0.587	0.581	0.581	0.573	0.525	0.539	0.552
Canada	0.990	0.998	0.999	0.996	0.972	0.972	0.986	0.991	1.003	1.031	1.025	1.016	0.984	0.969	0.973	1.009	1.057	1.060	1.073	0.094	1.132	1.115
Japan	265.8	265.3	265.7	280.0	276.0	284.1	298.5	300.9	293.8	296.4	302.7	305.2	299.7	297.4	287.5	292.8	277.5	267.7	265.5	240.0	222.4	228.3
Italy	582.5	584.1	564.1	607.9	622.3	647.6	660.5	649.4	632.0	630.4	687.3	683.6	840.3	840.5	859.6	875.0	887.3	884.8	882.3	871.6	852.5	872.1
Switzerland	3.237	2.960	3.022	3.244	3.000	2.998	2.946	2.540	2.528	2.503	2.748	2.620	2.534	2.473	2.454	2.451	2.543	2.461	2.339	2.010	1.869	1.970

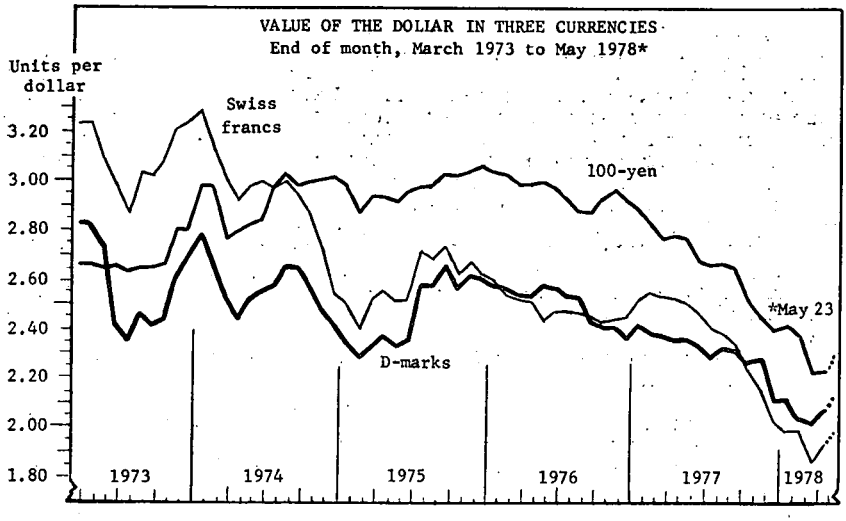
Percent change from previous period

	1973			1974				1975				1976				1977				1978	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	May 23
Belgium	−10.1	2.4	12.0	−5.7	−2.4	3.2	−7.9	−4.0	1.7	13.5	−1.2	−1.2	1.7	−5.3	−4.3	1.7	−1.6	−0.8	−7.8	−4.4	5.6
Germany	−14.6	−0.2	11.7	−6.7	1.3	3.8	−9.2	−2.7	0.4	13.0	−1.5	−3.2	1.4	−5.3	−3.0	1.1	−2.1	−1.3	−8.8	−3.9	5.3
Netherlands	−11.0	−3.2	11.4	−4.9	−1.2	2.0	−7.3	−4.5	1.9	12.1	−1.7	−0.1	1.8	−6.1	−4.3	1.4	−0.8	−0.6	−7.2	−5.1	5.3
France	−9.6	3.5	10.8	1.2	1.2	−1.7	−6.3	−5.2	−4.2	12.3	−1.1	4.1	1.5	3.9	0.9	0.0	−1.0	−0.3	−4.0	−2.6	1.9
Sweden	−9.7	2.6	8.8	−4.3	−0.3	1.8	−8.5	−3.4	−0.1	14.4	−2.7	0.3	1.2	−3.8	−3.7	1.7	4.8	9.9	−3.4	−1.7	2.0
United Kingdom	−4.0	7.0	3.9	−3.0	0.1	2.5	−0.7	−2.5	9.6	7.7	0.9	5.6	7.5	6.2	−1.5	−1.0	0.0	−1.5	−8.4	2.7	2.4
Canada	−0.6	0.7	−1.0	−2.3	0.0	1.4	0.5	1.2	2.7	−0.5	−0.9	−3.2	−1.6	0.5	3.7	4.7	0.3	1.3	2.0	3.5	−1.5
Japan	−0.2	0.2	5.4	−1.4	2.9	5.1	0.8	−2.4	0.9	2.1	0.8	−1.8	−0.8	−3.3	1.9	−5.2	−3.5	−0.8	−9.6	−7.3	2.6
Italy	0.3	−3.4	7.8	2.4	4.1	2.0	−1.7	−2.7	−0.3	9.0	−0.5	22.9	0.0	2.3	1.8	1.4	−0.3	−0.3	−1.2	−2.2	2.3
Switzerland	−8.6	2.1	7.3	−7.5	−0.1	−1.7	−13.8	−0.5	−1.0	9.8	−4.6	−3.3	−2.4	−0.8	−0.2	3.8	−3.2	−5.0	−14.0	−7.0	5.4

Changes in capital flows also act on exchange rates and for some countries, including the United States, capital movements comprise a large part of the supply of and demand for foreign exchange. Some advocates of floating exchange rates have assumed that changes in capital flows would not cause large changes in exchange rates nor impede the restoration of an appropriate balance of payments in response to changes in exchange rates. Long-term capital movements, such as direct investments and security transactions, were assumed to be relatively stable as they are made on the basis of economic conditions that are expected to prevail for an extended time. As for short-term capital movements, particularly banking transactions, they were assumed to respond quickly to changes in relative interest rates. Indeed, there was a view that the effect of changes in the balance on current account on exchange rates would be limited to what was necessary for restoring an appropriate balance of payments by a stabilizing inflow of short-term funds, provided differences in interest rates made this profitable.

Thus, the argument advanced in favor of floating exchange rates was not only that this system would facilitate prompt adjustment of the balance of payments, but that it would achieve this with relatively small and gradual changes in exchange rates. It was recognized, of course, that if countries did not take corrective measures to halt the rise in relative prices and costs, to eliminate excessive domestic demand, and to maintain adequate differentials in interest rates, the exchange rates for their currencies would continue to decline. Even so, it was assumed that the decline would be orderly, mainly determined by the differential rates of inflation, and that it would in any case prevent a large and persistent deterioration in the current account. It is implicit in these assumptions that price elasticities of demand and supply for export/import goods are very high, at least for the manufactured goods in which the large industrial countries compete with each other in their own and in world markets.

The experience of the United States since 1973 has not conformed to this idealized version of how floating exchange rates work. The year-to-year changes in the balance on current account have been enormous. In 1977, the current account deficit amounted to $20.5 billion and in the first quarter of 1978 it may have been $9.0 billion or more. The foreign exchange value of the dollar has fluctuated sharply in terms of some of the currencies of the large industrial countries. From 1973 to 1975, there were six periods in which the dollar rates of exchange for the currencies in the European joint float rose or fell by 10 percent or more in the course of three or four months. In the following two years, changes in the dollar exchange rates for most of the major currencies reflected changes in underlying economic conditions. From the end of September 1977 to the end of March 1978, however, the dollar rates of exchange rose by 14.1 percent for the D-mark, by 19.4 percent for the yen, and by 25.2 percent for the Swiss franc. For all of the currencies of the Group of Ten and Switzerland, weighted by their total exports in 1977, the average depreciation of the dollar over the six-month period was 9.2 percent. Since the end of March the dollar has recovered a part of the earlier decline. In the eight weeks to May 23rd, the dollar appreciated by an average of 3.2 percent relative to the currencies of the Group of Ten and Switzerland.



DEFICIT ON CURRENT ACCOUNT

In the past five years, the U.S. balance on current account has fluctuated widely between a surplus of $11.6 billion and a deficit of $20.5 billion. In 1973, the first year of floating exchang erates, the deficit fell by $9.6 billion to less than $400 million. In 1974, with the increase in the price of oil, the deficit increased by $4.7 billion to $5.0 billion. In 1975, the current account balance rose by $16.6 billion to a surplus of $11.6 billion. In 1976, the balance fell again by 13.0 billion to a deficit of $1.4 billion. And in 1977, the current account deteriorated further by $19.0 billion to a deficit of $20.5 billion. These large year-to-year changes reflect the inherent instability in the world pattern of payments.

Fluctuations in the balance on current account are almost entirely due to changes in the trade balance. The net receipts from services increased from a little over $300 million in 1972 to $15.8 billion in 1977, with a slight decline in only one year (1975). This was mainly due to three items—receipts from investment income, including fees and royalties, transfers under U.S. military agency sales contracts, and receipts from miscellaneous private services. Unilateral transfers rose moderately from $3.9 billion in 1972 to $4.8 billion in 1977, with only one very large increase (1974) which was due to a reclassification of previous loans to India as grants. Excluding merchandise trade, receipts from all other current transactions have increased steadily relative to such payments over the past five years.

The merchandise trade balance, however, has fluctuated sharply from year to year. The largest changes were the shift from a surplus of $9.0 billion in 1975 to a deficit of $9.3 billion in 1976 and an increase in the deficit to $31.5 billion in 1977. The deterioration in the trade deficit by $40.5 billion over these two years had a severely restraining effect on the U.S. economy. Between 1975 and 1977, domestic expenditure on goods increased by $189.1 billion of which 28.6 percent was supplied by increased imports. Over these two years, domestic production of goods increased by $148.5 billion of which only 9.0 percent was absorbed by the increase of exports. In 1975, the trade surplus was equal to 1.4 percent of the goods output. In 1977, the trade deficit was equal to 3.8 percent of the goods output.

GOODS, SERVICES, AND UNILATERAL TRANSFERS, 1971–78

[In millions of dollars]

	Exports		Imports			Balance on		
	Merchandise	Services	Merchandise	Services	Unilateral transfers	Trade	Goods, services	Current account
1971	43,319	22,295	−45,579	−20,375	−3,701	−2,260	−340	−4,041
1972	49,381	23,283	−55,797	−22,955	−3,854	−6,416	−6,088	−9,942
1973	71,410	30,287	−70,499	−27,678	−3,887	911	3,520	−367
1974	98,306	39,997	−103,673	−32,470	−7,188	−5,367	2,160	−5,028
1975	107,088	40,512	−98,043	−33,393	−4,612	9,045	16,164	11,552
1976	114,694	48,572	−124,014	−35,655	−5,023	−9,320	3,579	−1,426
1977	120,472	56,086	−151,968	−40,259	−4,795	−31,496	−15,669	−20,464
1978–1[1]	30,578		−41,778			−11,200		

[1]Seasonally adjusted, 1st quarter.

The main factor in the deterioration of the trade balance was the increase of imports. In 1976, imports increased by $26.0 billion (26.5 percent) to $124.0 billion; in 1977, they increased further by $28.0 billion (22.5 percent) to $152.0 billion. Of the increase of total imports in these two years, $18.0 billion (33.3 percent) was petroleum and products, $16.1 billion (29.0 percent) was foods, feeds and beverages, and industrial supplies and materials, and $19.8 billion (36.7 percent) was other imports, nearly all finished manufactured goods. Total imports increased by 55.0 percent over these two years. The increase was 66.5 percent for petroleum and products, 50.6 percent for foods, feeds and beverages and industrial supplies and materials, and 53.6 percent for other imports.

The very large increase of imports of petroleum and products was the result of a fall in domestic production and an increase in consumption. The increase of imports of foods and raw materials was mainly in response to the increase of output and income, although the large rise in the prices of some foods and the moderate rise in the prices of industrial supplies and materials add considerably to the imports of these commodities for which demand in terms of price is relatively inelastic. The large increase of other imports is most disturbing. The income elasticity of demand for consumer goods is about unity, as indicated by the relative stability of the personal saving rate. The income (output) elasticity of demand for capital goods is much greater, as indicated by the larger increase of investment in producers' durable equipment than of the gross national product in a cyclical expansion. Between 1975 and 1977, imports of finished manufactured goods increased by 53.6 percent, while expenditure on consumer durable and nondurable goods increased by 21.8 percent and investment in producers' durable equipment increased by 28.3 percent. This would seem to indicate that factors other than the expansion of output must have contributed significantly to the increase of imports in the past two years.

The lag in U.S. exports aggravated the deterioration in the trade balance. In 1976 exports increased by $7.6 billion (7.1 percent) to $114.7 billion; and in 1977 they increased by $5.8 billion (5.0 percent) to $120.5 billion. Exports of food, feeds and beverages increased by only $500 million (2.8 percent) over the two years. That was because of a fall of about 9.0 percent in the prices of these products. The volume of such exports, in fact, increased moderately. Exports of industrial supplies and materials increased by $4.0 billion (13.0 percent), with about two-fifths of the increase due to higher prices. Other exports, nearly all finished manufactured goods, increased by $8.8 billion (15.5 percent). Nearly all of this increase reflected higher prices, so that there was virtually no increase in the volume of exports of manufactured goods. The total volume of U.S. exports increased by 3.4 percent in 1976 and fell by 0.5 percent in 1977.

To some extent, the failure of U.S. exports to increase more, particularly finished manufactured goods, was due to the slow recovery in Europe and Japan and the relatively small growth of imports in some other regions, including Canada and Latin America. Mainly, however, the lag in exports must have been due to the inability of the United States to compete effectively in world markets. While U.S. exports increased by 12.5 percent in dollars over the two years, those of Germany increased by 30.9 percent in dollars and by 23.4 percent in D-marks, while those of Japan increased by 45.3 percent in dollars and by 30.7 percent in yen. This disparity in the export performance of the three largest

trading countries could not be significantly due to the difference in their cyclical situation. Excluding the United States, Germany's exports to all other countries increased by 29.8 percent in dollars and by 22.5 percent in D-marks over these two years. Japan's exports to all countries other than the United States increased by 37.2 percent in dollars and by 24.1 percent in yen. In all major world markets, Germany and particularly Japan increased their exports far more than the United States. This must have been due to a decline in the competitiveness of the U.S. exporters.

It would appear that the system of floating rates did not prevent the emergence of a large U.S. current account deficit and it did not bring an improvement in the current account in spite of the depreciation of the dollar. This may be too harsh a judgment. The current account was in surplus until the second quarter of 1976 and the deficit in the second half of that year was relatively small—$2.5 billion. In the first quarter of 1977, however, the deficit rose to $4.5 billion and remained at close to this level until the third quarter. This was due to the increase in the trade deficit to a quarterly average of $7.2 billion. Nevertheless, the dollar did not weaken signficantly in this period. From the end of December 1976 to the end of September 1977, the average depreciation of the dollar relative the currencies of the Group of Ten and Switzerland was 1.4 percent. Except against the yen, which appreciated by 10 percent, the market did not adjust the dollar rates of exchange to reflect the deterioration in the current account in the first three quarters of 1977.

The current account became very much worse in the fourth quarter of 1977 and the first quarter of 1978. The trade deficit increased to $9.9 billion and the current account deficit increased to $8.0 billion in the fourth quarter. In the first quarter of this year, the trade deficit increased further to $11.2 billion and the current account deficit increased to about $9.0 billion—twice as much as it had been in the first three quarters of 1977. This was also the period when the dollar depreciated sharply—by an average of 9.1 percent relative to all of the currencies in the Group of Ten and Switzerland, and two to three times as much relative to the D-mark, the yen, and the Swiss franc. Clearly, the depreciation of the dollar did not have a favorable effect on the trade balance.

Between the third quarter of 1977 and the first quarter of 1978, U.S. imports increased by $3.5 billion (9.2 percent) to $41.8 billion. This occurred in spite of the large fall in imports of petroleum and products—by $1.6 billion (15.2 percent) to $9.1 billion in the first quarter of 1978. Other imports, however, increased by 19.4 percent, with the largest increase (30.3 percent) in imports of motor vehicles and parts from Europe and Japan. This enormous increase in imports of manufactured goods was designed to get them through U.S. customs before the dollar depreciated further. On the other hand, U.S. exports declined by 1.3 percent over these two quarters. While exports had been lagging before, foreigners had an extra inducement to wait for a further depreciation of the dollar before increasing their imports from the United States.

Now that the decline of the dollar in the exchange market has been halted, the leads and lags in trade may begin to unwind. Imports may decline quickly, as much of the recent increase, particularly of manufactured goods, has probably gone into stock. Exports may be slower in expanding, although they should also be helped by the depreciation of the dollar. This is in addition to the effect on the U.S. trade balance of a higher rate of expansion in the large industrial countries. The improvement in the trade balance has apparently not yet begun. On a Census basis, exports increased by 6.6 percent in April to $11.63 billion, and imports increased by 5.8 percent to $14.50 billion. The trade deficit on a Census basis increased to $2.86 billion from $2.79 billion in March. Adjusted to a balance of payments basis, however, the trade deficit was unchanged at about $3.4 billion.

The rise of the dollar in April and May was due to the inflow of funds to cover short positions. The dollar can recover more of the recent decline relative to the European currencies, however, only if the deficit on current account is reduced to a level that can be covered by the net inflow of capital without extraordinary financing by the monetary authorities. Under present conditions, while the oil-exporting countries still have a large current account surplus, a U.S. deficit of about $10 billion a year might be appropriate. If reinvested earnings of direct investment enterprises were included in receipts and payments of investment income and also in capital outflow and inflow, as they will be hereafter, the appropriate current account deficit would be about $5.0 billion.

A change in the balance on current account will be offset by a change in the net capital inflow or outflow, although that may not occur without and adjustment of exchange rates. At times, changes in dollar exchange rates have been greatly exaggerated by perverse changes in capital flows. While unbalancing capital flows may be initiated by expectations of accelerated inflation or by too easy fiscal and monetary policies, they are usually caused by a deterioration in the current account. As noted, the balance on current account has fluctuated widely in the past five years. In 1973, the United States had a current account surplus of $2.9 billion with members of OPEC. The balance shifted to a deficit of $4.7 billion in 1974 which has increased since then to $16.9 billion in 1977. The U.S. balance on current account with all other countries has been much more volatile, and has ranged from a surplus of $16.7 billion in 1975 to a deficit of $3.6 billion in 1977.

SELECTED U.S. TRANSACTIONS WITH OPEC MEMBERS[1]

[In millions of dollars]

	1972	1973	1974	1975	1976	1977
Merchandise exports, except military	−423	−1,683	−11,015	−8,941	−15,851	−22,763
Exports	2,551	3,414	6,219	9,956	11,558	12,877
Imports	−2,974	−5,097	−17,234	−18,897	−27,409	−35,640
Services, except investment income	340	665	1,020	1,988	2,888	4,153
Transfers, U.S. military sales	217	489	862	1,607	2,620	4,021
Fees and royalties	134	152	195	204	239	200
Other private services	139	146	253	372	535	801
U.S. Government miscellaneous services	5	7	7	8	21	17
Direct defense expenditures	−105	−75	−234	−141	−441	−789
Private payments for services	−16	−20	−20	−22	−26	−37
U.S. Government payments for miscellaneous service	−34	−34	−34	−40	−60	−60
Investment income, net	2,750	3,901	5,374	1,868	3,095	1,764
U.S. direct investments	2,660	3,789	5,671	2,650	4,050	3,057
Other U.S. private receipts	85	166	330	332	405	445
U.S. Government receipts	76	87	105	118	117	116
Foreign direct investments			−5	−8	−6	−6
Other private payments	−52	−103	−451	−574	−655	−755
U.S. Government payments	−19	−38	−276	−650	−816	−1,094
U.S. Government grants	−44	−33	−35	−27	−20	−15
U.S. assets abroad, net	−905	841	6,347	−3,158	−2,501	−1,242
U.S. Government assets, except reserves	−214	−391	−211	−44	−261	−74
Direct investments abroad	−203	1,806	7,556	−1,955	−967	−663
Foreign securities	8	9	5	32	35	18
Claims reported by nonbank concerns	−111	−158	−467	−548	23	252
Claims reported by banks, n.i.e.	−385	−425	−536	−643	−1,331	−775
Foreign assets in United States	796	1,179	11,884	8,095	11,260	7,320
U.S. Treasury securities	184	50	5,473	2,426	3,206	3,457
Other U.S. securities	−26	−2	1,191	3,199	3,005	2,938
Other U.S. Government liabilities	90	433	518	1,118	2,851	758
Direct investments in United States	−18	2	111	−36	23	12
Liabilities reported by nonbank concerns	−8	145	493	756	537	−271
Liabilities reported by banks, n.i.e.	574	551	4,098	631	1,638	426
Other transactions and transfers of funds between foreign areas, net	−2,514	−4,870	−13,575	175	1,129	10,783
Memoranda:						
Trade balance	−423	−1,683	−11,015	−8,941	−15,851	−22,763
Balance on current account	2,623	2,850	−4,656	−5,112	−9,888	−16,861
Foreign official assets	593	872	10,840	7,111	9,455	6,758

[1] There are minor omissions in the service accounts and in the capital flows which are included in "other transactions and transfers of funds between foreign areas."

The wide fluctuations in the balance on current account have made it difficult to induce offsetting changes in net capital flows without considerable changes in exchange rates. The difficulty is aggravated when the capital flows from the surplus countries are much more or much less than the U.S. current account deficit

with them. In 1974 the United States had a current account deficit of $4.7 billion with members of OPEC. The net capital inflow from them, however, was $18.2 billion, of which $7.6 billion was payment for U.S. direct investments nationalized by members of OPEC. As a consequence, these countries transferred about $11.0 billion from other countries to finance the excess of their net capital flow to the United States over their current account surplus. On the other hand, the current account of the United States with all other countries was almost in balance in 1974. Virtually all of the funds transferred from them by OPEC had to be recycled in increased capital outflow from the United States to enable these countries to finance their deficit with OPEC. In 1975 and 1976, the net capital inflow from members of OPEC was slightly less than the U.S. current account deficit with them.

The situation changed abruptly in 1977. The U.S. deficit on current account with members of OPEC increased by $7.0 billion to $16.9 billion. The net capital inflow to the United States from them decreased by $2.7 billion. The transfer of funds by members of OPEC from the United States to other areas increased by $9.7 billion to about $10.8 billion. The United States also had a current account deficit of $8.0 billion with Japan, but all except $1.2 billion of this was covered by a net capital inflow from that country, mainly official funds. With Canada, the United States had a current account surplus of $2.9 billion, which was more than covered by net capital outflow from the United States, including the drawing down of Canadaian reserves. With all other areas excluding Western Europe, the United States had a small current account deficit but a large capital outflow, mainly from U.S. banks, about half of which was to their Caribbean branches. These funds were lent to other countries and that was done by transferring $8.3 billion of their capital receipts from the United States to other areas.

Actually, all of the net capital inflow in 1977 necessary to balance the shortfall in the net capital inflow from OPEC and other areas came from Western Europe. Very little of that inflow was private funds ($4.8 billion). By far the greater part of the foreign capital inflow from Western Europe was official funds ($24.4 billion) and a very large part of the official and private funds came from the United Kingdom ($14.6 billion). The need to attract this enormous inflow of funds from Western Europe would under ordinary circumstances have resulted in a depreciation of the dollar in the exchange market. As the dollar depreciated without any improvement in the balance on current account, foreigners were discouraged from acquiring dollar assets, so that the inflow of funds came from foreign monetary authorities concerned to avoid a further appreciation of their currencies relative to the dollar. This was supplemented by U.S. intervention which was also classified as an inflow of foreign official funds because the currencies for intervention were acquired from foreign monetary authorities.

SUMMARY OF U.S. INTERNATIONAL TRANSACTIONS, BY AREAS, 1977

[In millions of dollars]

	All areas	OPEC	Western Europe	Canada	Japan	Other areas [1]
Current account	−20,464	−16,861	2,053	2,857	−8,019	−494
Merchandise trade	−31,496	−22,763	6,229	−1,689	−8,058	−5,215
Services, except investment income	3,892	4,153	−3,133	1,513	50	1,309
Investment income	11,935	1,764	−708	3,173	32	7,674
Unilateral transfers	−4,795	−15	−334	−140	−43	−4,263
Capital flows	23,202	6,078	21,465	−3,382	6,850	−7,809
U.S. assets abroad	−26,059	−1,242	−7,689	−2,679	760	−15,209
Foreign assets in the United States:						
Official	37,419	6,758	24,397	−1,063	(7,327)	7,400
Other	11,842	562	4,757	360	6,090 (6,163)	
Statistical discrepancy and inter-area transfers [2]	−2,738	10,783	−23,518	525	1,169	8,303

[1] Includes international institutions and transactions unallocated by area.

[2] The total for all areas is the statistical discrepancy. The amounts for each area represent the sum of its statistical discrepancy and transfers from other areas to the United States (minus) or to other areas from the United States (plus).

Because of the role of the dollar in international capital transactions, those of other countries as well as the United States, there are large amounts of assets denominated in dollars that nonresidents of the United States hold in this country and abroad. At the end of February 1978, U.S. liabilities to foreigners reported by U.S. banks, including holdings of U.S. Treasury securities, amounted to $197 billion. Of this, $133 billion was to official institutions, $41 billion to commercial banks, $16 billion to other foreigners, and $8 billion to nonmonetary international organizations. Official funds do not flow out of the United States when there is speculation against the dollar—that is when they are more likely to come in, at least from the industrial countries. The holdings of commercial banks are almost all cover for liabilities, and increased in 1977. The holdings of other foreigners are also mainly related to business affairs and also increased last year. Moreover, foreign purchases of U.S. corporate stocks and bonds increased in 1977. There is no evidence that the outflow of capital from the United States came from the sale of foreign-owned assets.

According to the Bank for International Settlements, at the end of 1977 the banks of eight reporting European countries had liabilities in foregin currencies to nonresidents of $383.4 billion of which $272.9 billion were denominated in U.S. dollars. Not all of these Eurodollar deposits are regarded by their holders as dollar assets. To a considerable extent they are European currencies temporarily converted into dollars because of slightly better net interest rates, but sold forward for European currencies. This is also true of much of the Eurodollar loans which are converted into other currencies needed by the borrowers with offsetting forward purchases of dollars. The greater part of the Eurodollars are already covered by forward exchange transactions and sales of Eurodollars were not a significant factor in the fall of the dollar in the exchange market. In fact, Eurodollar deposits of nonresidents with the banks of these eight countries increased by $26 billion in the fourth quarter of 1977.

The issue of bonds in Europe denominated in dollars increased sharply after the United States imposed the interest equalization tax (1963) and after the limitations on the transfer of funds for U.S. foreign direct investment, voluntary in 1965 and mandatory in 1968. The total dollar-denominated Eurobonds issued between 1964 and 1977 amounted to about $52.5 billion. From 1965 to 1977, U.S. corporations issued over $10.0 billion of Eurobonds of which about 80 percent were denominated in U.S. dollars. Some foreigners with dollar-denominated bonds sold them when the dollar became weak in the exchange market. The first effect was that their price, quoted in dollars, fell. This happened in the fourth quarter of 1977 and the first quarter of 1978. Over this period, the yield on a New Zealand dollar issue maturing in 1986 rose from 7.86 percent in September 1977 to 8.41 percent in March 1978. The yield on a New Zealand D-mark issue of the same maturity fell from 6.46 percent to 6.12 percent over the same period. The fall in the dollar price and the rise in the D-mark price reflected the change in the preference for bonds denominated in these currencies and had the effect of making them equally attractive at the new prices in national currencies and at prevailing exchange rates.

The changes in the prices of Eurobonds denominated in dollars and D-marks were more a consequence than a cause of the change in exchange rates. If foreigners who switched out of dollar-denominated bonds sold them to other foreigners, then the dollars purchased by the buyers would offset the dollars sold by the sellers of the bonds, with no overall change in the supply of and demand for dollars in the exchange market. If Americans bought the dollar-denominated bonds from foreigners there would be an outflow of capital from the United States and that would increase the supply of dollars in the exchange market. If foreigners wanted to sell dollar-denominated bonds because of a fear of depreciation of the dollar, that would apply to bonds issued in the United States as well as those issued abroad. In fact, foreigners were net buyers of $1.5 billion of U.S. corporate bonds in 1977, although their net purchases declined quarter by quarter from $505 million in the first quarter to $225 million in the fourth quarter.

The emphasis on foreign holdings of dollar-denominated assets as a significant factor in the fluctuation of dollar rates of exchange is misplaced. When foreigners, and even more U.S. residents, change the currency composition of their assets and liabilities, they do it mainly by speeding up payments in foreign currencies and slowing down payments in dollars. They also change their net position in different currencies by buying forward exchange, without any movement of funds by them, although the banks that supply the deficiency in the forward market will sell spot dollars to cover their forward contracts. There are considerable transfers of foreign funds when the dollar is expected to depreciate, but they appear in the capital

flow data as a diminution in the foreign capital inflow. The end result is that net private holdings of dollar assets, by foreigners and U.S. residents, are short of normal requirements. When the depreciation of the dollar is halted, the short positions are corrected and that is the initial cause of a recovery in the exchange rate after a large decline.

MAINTAINING ORDERLY EXCHANGE CONDITIONS

The large fluctuations in dollar exchange rates may indicate that the price elasticities for export/import goods are much lower than has been assumed. They are probably due more to the excessive emphasis on the automatic adjustment of the balance of payments through changes in exchange rates. The depreciation of a currency will ultimately restore an appropriate balance on current account, but the depreciation could be very large if measures are not taken to slow the rise in prices and costs. That is because the exchange market foresees that the decline in the exchange rate will have to be larger without complementary fiscal and monetary policies than with them. Once speculation begins in anticipation of a depreciation of the exchange rate, it is difficult to stop. An increase in interest rates which could have a considerable effect in atttracting an inflow of capital when the exchange market is orderly can have little effect once the exchange rate depreciates rapidly. Under such conditions, only the intervention of the monetary authorities can be effective in preventing a greatly excessive depreciation of the currency.

The management of the exchange rate is an integral part of monetary policy. An undervalued currency acts like a too-easy monetary policy—it stimulates output, but contributes to the rise in prices and costs. An overvalued currency acts like a too-tight monetary policy—it restrains the rise in prices and costs, but holds down output. The monetary authorities cannot escape the responsibility for avoiding excessive fluctuations in exchange rates by saying that the way to do it is by maintaining sound fiscal and monetary policies. The exchange rate problem is a pragmatic one. It is useful to let the exchange market provide the monetary authorities with an indication of what the exchange rate should be. But when exchange rates change too much too rapidly, the market is no longer concerned with what the exchange rate should be, but with what it will be in the very near future. As Mr. Gerald K. Bouey, Governor of the Bank of Canada, told the House of Commons Standing Committee on Finance, Trade and Economic Affairs: "A rather curious situation can develop in which the authorities continue to look to the market to determine the rate while the market insists on probing further and further to find out how far the rate will be allowed to move before the authorities step in."

At such a time, the exchange market needs guidance. It has been suggested that the monetary authorities should decide on a range within which exchange rates would be allowed to move freely and that they should intervene when necessary to keep the rates from going beyond the limits of the range. Such a policy would be equivalent to restoring fixed parities with wide margins. Once the exchange rate reached the upper or lower limit of the range, further flexibility could be in only one direction unless the range were changed, as it no doubt would be. If the changes in the range were large and discontinuous, they would resemble changes in parity and might induce speculators to test the bottom of the new range. If the changes were small and frequent, they would not achieve the purpose of having a degree of exchange stability for a time within the range.

The monetary authorities need greater flexibility than that. Instead of trying to keep exchange rates within a predetermined range, their objectives should be to avoid large and rapid changes which are clearly disruptive. With such a policy, there would be no intervention if the fall in the dollar exchange rates for the major trading currencies were gradual. If the decline became rapid, it would be allowed to go on for a time before the monetary authorities intervened. If the rapid decline continued, and particularly if it accelerated, the monetary authorities would intervene, not to halt the decline but to slow it. Thus, the exchange market would be able to signal its views on exchange rates, but not to impose such a rapid decline as to create expectations of a further depreciation of the dollar. When the decline ends and the dollar begins to recover, the monetary authorities would follow a similar policy, slowing but not halting the rise in the rate.

Intervention to support the exchange rates or to moderate changes in the exchange rates for currencies should be undertaken only by agreement of the

countries concerned and after consultation with the International Monetary Fund. The United States would intervene in the market on its own account in only a very few key currencies, such as the D–mark. It could consent to intervention by other countries to avoid large changes in the dollar exchange rates for their currencies, but only if it were clear that such intervention would not prevent necessary adjustment in the U.S. balance of payments. As the behavior of the dollar exchange rates for other major trading currencies is of great importance to other countries as well as those immediately concerned, members should consult with the International Monetary Fund before intervening in the exchange market.

Most of the intervention to support the dollar was undertaken by other countries rather than the United States, at least until early his year. As the United States holds very little foreign exchange reserves, it had to acquire currencies it needs for intervention from other central banks. When foreign monetary authorities intervene to support the dollar, their operations increase the money supply and create reserves for their banks. That also happens when the United States intervenes using currencies acquired from the swaps. Recently, the Swiss and Germans suggested that the United States should take a more active role in supporting the dollar and that it should issue foreign currency bonds to raise the funds required for intervention. The extraordinary borrowing of foreign currencies would show that the United States was concerned about the depreciation of the dollar. The use of funds borrowed in the bond market would enable the United States to intervene without drawing funds from their central banks, thus avoiding an increase in the money supply and in bank reserves.

The United States decided not to use this means of raising currencies for intervention. The purpose of intervention should not be to maintain an exchange rate for the dollar higher than it would be with an orderly exchange market. The U.S. policy should be to buy in the exchange market as much foreign currencies during the recovery of the dollar as it sold during the fall of the dollar, with no net intervention over a period of a few months. There is no reason for issuing foreign currency bonds to finance such a temporary need. The United States may continue to have a current account deficit for some time, but if the payments position is appropriate the deficit will be matched by a net inflow of funds without extraordinary foreign borrowing by the Government. In fact, such borrowing would have the effect of preventing the exchange rate adjustment necessary for an appropriate balance on current account.

The United States is concerned about avoiding excessive fluctuations in the dollar exchange rates for other major currencies. On March 13, 1978, the U.S. Secretary of the Treasury and the German Minister of Finance issued a joint statement agreeing to cooperate on such a policy. The statement said: "The U.S. Treasury has arranged for the sale of SDR 600 million (approximately $740 million) to purchase Deutsche Marks. In addition, the United States has a reserve position in the IMF (automatically available in amounts up to approximately $5 billion) which it will draw if and as necesary to acquire additional foreign exchange." As part of this cooperative effort, the Federal Reserve and the Bundesbank agreed to double the swap line from $2 billion to $4 billion.

The use of SDRs and of drawings on the IMF has a significance not attached to the use of swap lines. The use of such resources represents a sharing of the exchange risks from intervention. When the United States draws D-marks from the IMF, it incurs an obligation to the IMF for an amount of SDRs equivalent to the value of the D-marks at the time of the drawing. Germany, in turn, acquires a claim on the IMF for an amount of SDRs equivalent to the value of the D-marks at the time they were drawn. If the United States, for example, had drawn D-marks from the IMF on Spetember 30, 1977, its obligation on March 31, 1978 would have been 6.3 per cent more in dollars than when the D-marks were drawn. That is because the foreign exchange value of the dollar fell by this amount relative to the weighted average of the currencies that comprise a unit of SDRs. On the other hand, the claim of Germany on the IMF would have been 6.8 per cent less in D-marks at the end of March 1978 than when the drawing was made. That is because the foreign exchange value of the D-mark rose by this amount relative to the weighted average of the currencies that comprise a unit of SDRs. This would have been an almost equal sharing of the exchange risk betwen the United States and Germany. Actually, the risks of loss from intervention which is solely for the purpose of avoiding excessive fluctuations in exchange rates are very small; they are insignificant compared with the economic costs of excessive fluctuations in exchange rates.

THE 1978 MIDYEAR REVIEW OF THE ECONOMY

THURSDAY, JULY 13, 1978

INTERNATIONAL TRADE

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to recess, at 10:04 a.m., in room 2168, Rayburn House Office Building, Hon. Gillis W. Long (member of the committee) presiding.

Present: Representatives Long and Brown of Ohio; and Senator Roth.

Also present: Lloyd C. Atkinson, Thomas F. Dernburg, Kent H. Hughes, M. Catherine Miller, William D. Morgan, and Robert Ash Wallace, professional staff members; Mark Borchelt, administrative assistant; and Charles H. Bradford, Stephen J. Entin, and Mark R. Policinski, minority professional staff members.

OPENING STATEMENT OF REPRESENTATIVE LONG

Representative LONG. This hearing will come to order.

Gentlemen, speaking on behalf of the Joint Economic Committee, we appreciate your taking the time not only to be with us today, but also to prepare the statements that you have submitted, and to give us the benefit of your views.

I have a short opening statement that I would like to make and, if it is acceptable to you, we will then proceed to a panel-type discussion, as we have done with most of these hearings, having found that they are more productive.

We will give each of you an opportunity to present his prepared statement, and when we go into the question period, if any of you has a comment with respect to the particular question that is being discussed, even though it might have been addressed to one of the other members of the panel, don't hesitate to speak up, make yourself heard, and your point of view known. That will add a great deal to the continuity of the proceedings.

In past years if America looked at economic statistics at all, it seems we focused on growth, employment, and inflation. Suddenly the trade deficit and the value of the dollar have jumped off the financial page, and have crowded their way into the everyday headlines. Never in this century has foreign trade weighed more heavily on the economic mind of the country.

National interest in foreign trade has grown at a time of tumultuous change in the international economy. Fixed exchange rates have given way to a wide variety of currency system. The OPEC cartel has succeeded in sharply raising the price of oil and generating a large financial surplus. Competition for world markets has become more severe. There are a number of developing countries that have become major exporters of manufactured goods.

Throughout this period, the United States has remained a firm advocate of freer trade. Ambassador Strauss, our special trade representative, has been a major force in moving the current Toyko round of trade negotiations, we all hope, in the direction of a successful conclusion.

There has already been some press speculation that, with the exception of agriculture, a basic agreement on trade matters will be announced at the upcoming Bonn economic summit. Today, we hope to anticipate the summit just a little by taking a look at the economic implications of a possible trade agreement.

Despite the progress made at the multilateral trade negotiations that have been held around the world, there are, of course, a number of potential problems that could seriously disrupt the future course of international trade.

In the United States, the broad political coalition that supported free trade for so long has begun to break apart. A large part of organized labor began to question the benefits of expanded trade in the late 1960's, and formally broke with other free trade groups in 1971, a break represented by introduction of the Burke-Hartke bill.

Then, following the OPEC-mandated increase in the price of oil, most of the industrial world was forced to suffer the worst of economic worlds; that is, recession coupled with rapid inflation.

In an attempt to fight the recession and still earn sufficient income to meet the cost of higher oil prices, many countries have sought to boost their exports. At the same time, a variety of measures were adopted to reduce import pressures; this is not, of course, an exclusively American phenomenon. The signs of what many call the new protectionism, if that is a good term for it, can be found all around the world, and there may be more trade-related difficulties in the future.

The rapid growth of the number of developing countries has put their manufactured exports in competition with those of the industrial West. Even more competition for the industrial markets can be expected when Iran, Saudi Arabia, and other OPEC powers complete their industrialization drives. The result may be increased pressures in the developed countries to adopt quotas or other trade-restricting measures.

As I mentioned earlier, to discuss these problems and all of the issues that are related to them, we are fortunate to have with us this morning an exceptionally distinguished panel of economists. Mr. William Cline of the Brookings Institution, and Mr. Robert Stern of the University of Michigan, who are going to focus their attention on the likely outcome of the international trade negotiations in Geneva and what they might mean for the United States and for the rest of the world. Mr. David Richardson, of the University of Wisconsin, who

will explore the implications of foreign trade for the United States and the developing world.

Before we start, I would like to insert into the record a recent paper by Mr. Balassa on world trade and the international economy and, without objection, that will be made a part of the record at this point.

[The paper referred to follows:]

WORLD TRADE AND THE INTERNATIONAL ECONOMY: TRENDS, PROSPECTS, AND POLICIES

(By Bela Balassa) *

I. TRADE LIBERALIZATION IN THE POSTWAR PERIOD

The progress of trade liberalization

The postwar period saw steady progress intrade liberalization until the oil crisis and the world recession of 1974–75. Apart from removing quantitative import restrictions imposed during the depression of the nineteen-thirties and the Second World War, efforts were concentrated on lowering tariffs. Reductions in tariffs originally aimed at reversing the increases effectuated during the depression, but they were subsequently lowered much below pre-1930 levels.[1]

Tariff reductions were undertaken in the framework of GATT on the basis of the dual principles of nondiscrimination and reciprocity. Nondiscrimination means that, customs unions and free trade areas apart, reductions in tariff barriers are extended to all member countries under the application of the most-favored-nation (MFN) clause. In turn, reciprocity means that, in negotiating tariff concessions, an attempt is made to balance the interests of the participating countries.

During the nineteen-fifties, trade liberalization proceeded on the basis of item-by-item negotiations, with the participating countries making offers to each other to lower tariffs in exchange for tariff reductions on items of export interest to them. After initial successes, this procedure became increasingly cumbersome and was superseded by across-the-board tariff reductions, first in the Dillon round and subsequently in the Kennedy round of negotiations, with exceptions made for so-called sensitive items.

Although most developing countries did not actively participate in trade negotiations in the framework of GATT, they enjoyed the benefits of tariff reductions being automatically extended to them under the application of the MFN clause. Indeed, it appears that the benefits of multilateral trade liberalization for the developing countries far exceeded the benefits they have derived from the application of the General Preference Scheme which, despite its name, has remained limited in scope.[2] And while the elimination of tariffs on intra-area trade in the framework of the European Economic Community and the European Free Trade Association favored imports from the partner countries over imports from outsiders, including the developing countries, tariffs on these imports were reduced on the average by one-half during the nineteen-sixties. At the same time, the developing countries benefited from increased demand for their exports that accompanied the acceleration of economic growth in Western Europe following the success of integration efforts.[3]

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* The author is Professor of Political Economy at the Johns Hopkins University and Consultant to the World Bank. The opinions expressed in the paper are those of the author and should not be interpreted to reflect the views of the World Bank. The paper was presented at the Seminar on "The Role of World Trade in the Present Economic Situation," sponsored by the Instituto Bancario San Paolo di Torino, and held in Milan on March 31, 1978. The author is indebted to participants at the Seminar for helpful discussions and to Geza Feketekuty, Nicholas Pless, and Jan Tumlir for valuable comments.

[1] While the ratio of tariffs to dutiable imports does not appropriately measure the extent of protection, it may be used to indicate general trends. In the United States, this ratio averaged 38 percent in 1922–29; it was 53 percent in 1930–33 under the Hawley-Smoot law; and it decreased to 25 percent by 1957 (Sidney Ratner, *The Tariff in American History*, New York, Van Nostrand, 1972, pp. 52–57). The ratio of U.S. tariffs to dutiable imports declined further following the Dillon-round (1960–61) and the Kennedy-round (1963–67) negotiations and reached 8 percent in 1974 (*Statistical Abstract of the United States*. 1975, p. 22).

[2] Cf. J. M. Finger, "Tariff Provisions for Offshore Assembly and the Exports of Developing Countries," *Economic Journal*, June 1975 and "Effects of the Kennedy Round Tariff Concessions on the Exports of Developing Countries," *Ibid.*, March 1976.

[3] Cf. Bela Balassa, *European Economic Integration*, North Holland, Amsterdam, 1975. ch. 2.

Trade liberalization pertained largely to raw materials and to manufactured goods while food imports remained subject to barriers. As tariffs on most raw materials were reduced to low levels by the mid-fifties, in this paper emphasis will be given to trade in manufactured goods.[4] This choice is also warranted by reason of the fact that trade in manufactured products had to bear the brunt of the "new protectionism" since 1973 and that prospective changes in the international division of labor between developed countries affect primarily these commodities.

International trade and economic growth

It has been noted that the elimination of barriers to intro-area trade contributed to the acceleration of economic growth in Western Europe. More generally, the expansion of international trade has favorable effects on economic growth. Apart from improvements in resource allocation according to comparative advantage, these effects find their origin in the exploitation of large-scale economies through the construction of larger plants (the traditional form of economies of scale), reductions in product variety in individual plants (horizontal specialization), and greater specialization in the production of parts, components, and accessories (vertical specialization), as well as in technological changes that is stimulated by foreign competition. Rapid economic growth, in turn, contributes to increased imports, thereby extending the gains to other countries.

Ragnar Nurkse suggested that the effects of trade on economic growth are indicated not by "the average ratio of world trade to world production [but by] the incremental relationship between trade and production. . . ."[5] He noted that such a relationship was observed during the nineteenth century, when the expansion of international trade at a rate much exceeding that of domestic production importantly contributed to economic growth in the industrial countries. Economic growth was, in turn, transmitted to other countries of the world as the industrial countries' imports of primary products rose at a substantially higher rate than their national income.

Nurkse claimed, however, that "the world's industrial centers in the mid-twentieth century are not 'exporting' their own rate of growth to the primary-producing countries through a corresponding expansion of demand for primary products"[6] and that the developing countries face difficulties in exporting manufactured good to the industrial countries. According to Nurkse, "Industrialization for export markets may encounter . . . difficulties on the supply side. In the scale of comparative advantage there may be a wide gap, or at any rate a certain discontinuity, between the traditional primary products and the new manufactured goods which a country would seek to export . . . Equally serious are the obstacles which industrialization for export is liable to encounter on the side of external demand"[7] due to protection in the industrial countries.

These pessimistic views, shared by writers such as Gunnar Myrdal[8] and Raul Prebisch,[9] were not borne out by the facts. To begin with, the "incremental relationship" between exports and production in the industrial countries obtained also during the postwar period as their exports rose much more rapidly than their gross national product. Between 1953, the first "normal" postwar year, and 1960, when the effects of tariff reductions in the EEC and EFTA began to be felt, the export volume of the industrial countries increased at an average annual rate of 7.0 percent while their combined GNP rose 3.6 percent a year.[10]

The industrial countries' imports of primary products from the developing countries, too, increased more rapidly than their combined GNP. These imports rose at an average annual rate of 5.1 percent between 1953 and 1960, exceeding the GNP growth of the industrial countries by about one-half, with even larger

[4] Manufactured goods will be defined as SITC commodity classes 5 to 8 less nonferrous metals (68).

[5] Ragnar Nurkse, "Patterns of Trade and Development," in *Equilibrium and Growth in the World Economy*, Cambridge, Mass., Harvard University Press, 1961, p. 283.

[6] "Patterns of Trade and Development," *op. cit.*, p. 289.

[7] *Ibid*, p. 310.

[8] Gunnar Myrdal, *Economic Theory and Underdeveloped Regions*, London, 1957.

[9] Raul Prebisch, "Commercial Policy in the Underdeveloped Countries," *American Economic Review Papers and Proceedings*, May 1959, pp. 251–73.

[10] United Nations, *Yearbook of International Trade Statistics*, 1962 and Bela Balassa, *Trade Prospects for Developing Countries*, Homewood, Illinois, R. D. Irwin, 1964, pp. 7, 10.—All data have been expressed in terms of constant prices.

increases shown in regard to manufactured goods.[11] At the same time, the export performance of a number of developing countries was adversely affected by their own policies: the bias against exports in countries pursuing import substitution policies led to a loss in their world shares in primary exports[12] and forestalled the emergence of manufactured exports.

Developments until the oil crisis

The observed trends in trade and growth continued and even accelerated after 1960 when trade liberalization in the framework of the Dillon and the Kennedy rounds, integration in Western Europe, and the adoption of export-oriented policies in several developing countries gave added impetus to world trade. The exports of the developed countries rose at an average annual rate of 8.8 percent between 1960 and 1973,[13] the last year before the quadrupling of oil prices and the world recession, exceeding the growth of their combined GNP, estimated at 4.8 percent a year, by a considerable margin.

Economic growth in the developed nations led to a rapid rise of their imports from the developing countries, with increases averaging 7.2 percent a year between 1960 and 1973. The imports of manufactured goods rose especially rapidly, far exceeding earlier projections. Thus, while the United Nations foresaw an increase of only 60 percent during the sixties, these exports increased fivefold between 1960 and 1970 and their rate of growth averaged 18.3 percent between 1960 and 1973.[14]

Within the developing country group, the largest export increases were experienced in countries that adopted export-oriented policies and liberalized their imports. Thus, Korea, Singapore, and Taiwan, which first adopted such policies, increased their share in the combined exports of manufactured goods by developing countries from 2.7 percent in 1960 to 32.7 percent in 1973. By contrast, the share of India, a country that continued with protectionist policies throughout the period, fell from 24.6 percent in 1960 to 6.6 percent in 1973.[15]

The rise in their foreign exchange earnings allowed the developing countries to increase their imports from the developed nations at a rapid rate. These imports rose 6.2 percent a year between 1960 and 1973, with manufactured imports growing at an annual average rate of 6.5 percent. As a result, the manufacturing trade surplus of the developed nations with the developing countries increased from $14 billion in 1960 to $43 billion in 1973, when the developing countries provided markets for 37.7 percent of the manufactured exports of the developed nations, excluding trade between the United States and Canada as well as within and between EEC and EFTA.[16]

II. OIL CRISIS, RECESSION, AND PROTECTIONIST PRESSURES

The post-1973 situation

It has been shown that the rapid expansion of foreign trade contributed to economic growth in the developed countries during the postwar period. Growth in the developed countries, in turn, was transmitted to the developing countries through trade. At the same time, imports by the developing countries provided an important market for the manufactured exports of the developed countries.

These developments occurred in an atmosphere marked by progressive trade liberalization on the part of the developed nations and by the adoption of export-oriented policies, accompanied by reduced protection, in several developing

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[11] *Trade Prospects for Developing Countries,* pp. 9–10.

[12] I. B. Kravis, "Trade as a Handmaiden of Growth: Similarities between the Nineteenth and the Twentieth Centuries" *Economic Journal,* December 1970: pp. 850–72; R. C. Porter, "Some Implications of Primary-Product Trends," *Journal of Political Economy,* May/June 1970, pp. 586–97; and Bela Balassa, *The Structure of Protection in Developing Countries,* Baltimore, Md., Johns Hopkins Press, 1971, ch. 2 and 4.

[13] United Nations, *Monthly Bulletin of Statistics,* October 1977—Developed countries are defined to include the industrial countries of North America, Western Europe, and Japan, as well as Australia, New Zealand, Isdael, and South Africa. All other market economies are classified as developing.

[14] "Trade and Development: Trends, Needs and Policies, Part I" in United Nations, *World Economic Survey,* 1963, New York, 1965, p. 31, and United Nations, *Monthly Bulletin of Statistics,* June 1977.

[15] Bela Balassa, "Export Incentives and Export Performance in Developing Countries: A Comparative Analysis" *World Bank Staff Working Paper No. 248* January 1973, Appendix Table 2.

[16] United Nations, *Monthly Bulletin of Statistics,* June 1977 and February 1978.

countries. The atmosphere was marred only by quantitative import restrictions pertaining chiefly to Japanese exports, and by the adoption of the International Cotton Textiles and, subsequently, Multifiber Arrangement. Nevertheless, the Multifiber Arrangement provided for an annual growth of 6 percent in the exports of textiles and clothing and, as a result of increases in their quota allocation and the upgrading of their export products, the developing countries' exports of textiles and clothing rose substantially faster.[17]

The situation changed as the quadrupling of oil prices aggravated the recession that followed the 1972–73 world economic boon. In adding to inflationary pressures, the oil price increase led to stronger anti-inflationary measures on the part of the developed countries than would have been otherwise the case. The recession was further aggravated by policy reaction on the part of the developed countries to the increase in their combined balance-of-trade deficit vis-a-vis OPEC from $17.2 billion in 1973 to $66.6 billion in 1974.[18] And, while the United States has maintained a steady rate of expansion since mid-1975 without regard to its balance-of-payments consequences, in the other developed countries the desire to lower inflation rates and/or to reduce balance-of-payments deficits has not permitted economic expansion to proceed at a rate approaching capacity growth following the recession. As a result, unemployment has continued to increase in Western Europe and Japan, while it has not yet declined to pre-1973 levels following the deep recession in the United States.

High unemployment and unused capacity in a number of industries of the developed countries have contributed to the emergence of protectionist pressures, which were intensified by reason of the continued existence of trade deficits in most developed countries. The protectionist measures proposed and actually applied, if not the extent of their application, have a certain resemblance to those observed during the depression of the nineteen-thirties.[19] They may be subsumed under the heading "new protectionism" and include various forms of nontariff restrictions on trade, government aids under the aegis of the "rationalization of industry," as well as attempts made at the establishment of worldwide market-sharing arrangements.

Nontariff restrictions

As noted above, the Multifiber Arrangement, the principal case outside agriculture where nontariff measures were applied prior to the oil crisis, provided for a 6 percent annual rate of growth in the textiles and clothing exports of the individual countries. The new agreement, pertaining to the 1978–82 period, is more restrictive. While notionally setting a 6 percent annual rate of growth for the exporting countries, taken together, it leaves considerable scope for the importing countries to set lower limits through bilateral negotiations.

In fact, the European Common Market that forced the adoption of the revised rules at the behest of France and the United Kingdom, has required that the largest developing country exporters reduce their 1978 exports of textiles and clothing to the EEC below the 1976 level (the relevant figures are —9 percent for Hong Kong, —7 percent for Korea, and —25 percent for Taiwan). And while better overall terms are provided to very poor countries, the total imports of eight sensitive products, accounting for 62 percent of EEC imports of textiles and clothing from developing countries, will decline below the 1976 level in 1978 and will increase slowly afterwards, with growth rates in the 1978–82 period ranging from 0.3 percent a year for cotton yarn to 4.1 percent a year for sweaters (*The Economist*, December 24, 1977). Import growth rates were also set at less than 6 percent a year for another important group of clothing products, so that the rate of growth of the imports of textiles and clothing into the EEC will remain much below 6 percent.

The United States reached agreements with Hong Kong, Korea, and Taiwan to freeze their 1978 exports of textiles and clothing to the U.S. at the 1977 level and to increase the exports of a number of sensitive items, accounting for about 70 percent of exports in the case of Korea, at a rate substantially less than 6 percent afterwards. Taking further account of bilateral agreements

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[17] D. B. Keesing, "World Trade and Output of Manufactures: Structural Trends and Developing Countries' Exports" Washington, D.C., World Bank, February 1978. (mimeo).

[18] UN *Monthly Bulletin of Statistics*, August 1976.

[19] On this point, see Jan Tumlir, "The New Protectionism, Cartels, and the International Order," paper presented at the Conference on *Challenges to a Liberal International Economic Order*, sponsored by the American Enterprise Institute and held on December 1–2, 1977 in Washington, D.C.

negotiated with other countries, it is apparent that the 6 percent annual rate of growth of the imports of textiles and clothing under the Multifiber Arrangement will not be attained in the United States either.

In regard to steel, the European Common Market established guideline prices for five product groups and a mandatory minimum price for reinforcing bars in 1976. As of January 1978, basic or reference prices were set for all products based on the lower foreign (i.e., Japanese) production costs adjusted for transport costs. Imports below the reference price come under anti-dumping rules, with a levy imposed in the amount of the price difference. This scheme is assumed to be temporary, to be replaced by bilateral agreements negotiated with steel exporting countries. The Commission reportedly hopes to get some 20 countries to accept the same share in the EEC market in 1978 as they had in 1976, implying an average cut in steel imports by 8 percent from the 1977 level (*The Economist*, January 28, 1978). The cuts would be larger for the new developing exporters that increased their steel exports to a considerable extent between 1976 and 1977.

In establishing reference prices for steel, the EEC Commission drew on the Solomon-plan in the United States that came into effect in February 1978. Under the plan, the reference or trigger prices have been set on the basis of assumed Japanese production costs and the cost of shipping to U.S. markets. Correspondingly, the reference prices rise, and the chance of effective import competition declines, as one moves from West to East (*The Wall Street Journal* February 23, 1978).

The adoption of import restrictions in regard to textiles and steel is a manifestation of protectionist tendencies that have emerged in recent years. In the United States, the practical application of the provisions of the 1974 Trade Act also points in this direction. Under the Act, the U.S. Treasury has to reach a decision within one year after petitions are filed requesting the imposition of countervailing duties on exports that are allegedly subsidized by foreign countries, and countervailing action has been extended to duty free imports, including those entering under the generalized preference scheme. In turn, dumping has been redefined as selling at less than full production cost, including a margin for profit, rather than at less than the domestic sales price as beforehand.

The Trade Act has also weakened the conditions for escape-clause action by requiring only that imports are "a substantial cause of serious injury, or the threat thereof" while previously such action could be taken only if imports were "the major cause" of serious injury and the increase in imports causing or threatening the injury was the result of previous trade concessions. Furthermore, "orderly marketing agreements," representing negotiated restrictions on exports to the United States, have been introduced in the arsenal of protectionist measures. Finally, the two houses of Congress can overrule the President if he rejects recommendations made by the International Trade Commission on anti-dumping and escape clause action.

While the Trade Act of 1974 has also liberalized the conditions for granting adjustment assistance to assist domestic industries adversely affected by imports, it is the possibilities provided for the use of protective measures that have come to be increasingly utilized. To begin with, there has been a substantial increase in positive findings in countervailing duty cases; there were thirty-four positive findings in the years 1974–77 as compared to thirteen in the preceding 11 years. And, at least in one case, the criteria for imposing countervailing duties have been modified to the detriment of foreign exporters.[20] The Treasury plans even stricter enforcement in the future, although in many developing countries subsidy measures only compensate for the effects of domestic protection.

The number of anti-dumping cases has also increased since 1974 and the recent interpretation of production costs in the exporting countries is likely to give impetus to further increases in the future. Thus, the Treasury has established a formula for steel based on the "constructed value" of Japanese production costs plus an arbitrary markup of 10 percent for general expenses and another 8 percent for profits, both of which are much above the industry average (*Business Week*, November 14, 1977).

At the same time, the International Trade Commission has become active in its investigation of complaints that imports are harming domestic industries—even if this may involve encroaching on the territory of other governmental or-

[20] The Treasury has countervailed the imports of bromide and bromide products from Israel that benefit from regional aids, although only 3 percent of total production is exported to the U.S.

ganizations.[21] It issued 42 decisions in 1976 as compared to 15 in 1975, with the amount of imports affected rising from $248 million in 1975 to $1.9 billion in 1976, and surpassing $5 billion in 1977 (*The Wall Street Journal*, November 25, 1977). Finally, although President Carter overruled ITC recommendations in several cases, some important decisions have favored protectionist interests.

Apart from steel and textiles, particular instances are orderly marketing agreements with Japan on color television sets and with Korea and Taiwan on footwear, both in 1977. In the first case, imports were limited to 1.75 million sets a year until 1980, representing a 40 percent reduction from the 1976 level. In the second case, import limitations apply until 1981 and, despite annual increases in quotas, the 1976 level would not be reached by the end of the four-year period of the agreement. The application of protectionist measures in these well-publicized cases has, in turn, contributed to demands for protection in industries such as citizen-band radios, electric ovens, railroad equipment, bicycle tires and tubes, copper, and zinc, among which tariffs have already been increased on citizen-band radios.

The taking of protectionist measures by the Carter Administration has been rationalized on the grounds that these help to forestall more drastic action by Congress. At the same time, according to *The Wall Street Journal* (December 29, 1977), "the sentiment in Congress for protectionism is rising again." This reflects increased protectionist pressures emanating largely from labor, with labor and industry joining forces whenever they perceive a common interest.[22]

It should be emphasized that, whatever the outcome, protectionist demands create uncertainty for exporters. Thus, demands for countervailing or anti-dumping action may induce foreign producers to limit exports to the U.S. for fear of a financial loss in the form of the payment of additional duties for which they have to put up a bond.[23] More generally, even if they ultimately prove unsuccessful, protectionist demands are reportedly initiated in the expectation that foreign producers will cut back their expansion plans for the U.S. market.[24]

Protectionist pressures have also increased in Western Europe, in particular in Britain and France. In Britain, the Cambridge Group has provided theoretical justification for the protectionist attitude taken by the Labor Government[25] while in France protectionism has political backing from the right as well as from the left. Notwithstanding the generally liberal attitudes in Germany and Italy,[26] the position taken by these two countries has apparently greatly influenced the Common Market Commission, as evidenced by the imposition of strict limits on the importation of textiles and clothing as well as by increased reliance on countervailing and anti-dumping legislation.[27]

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[21] It has been reported, for example, that ITC found the Japanese steel producers guilty of "predatory pricing" which has been defined in a similar way as dumping violations that are ruled on by the Treasury (*Washington Post*, January 15, 1978). It has also been reported that the White House objected to the ITC negotiating consent orders between domestic and foreign color TV makers on its own initiative (*The Wall Street Journal*, November 25, 1977). Note further that the Message from the Chairman, introducing the 1976 report of the ITC, speaks of "an innovative approach to our substantive and administrative duties and . . . considerable progress in meeting the objectives which the Commission had set as a result of its increased role in international trade."

[22] In this connection, a statement made following the December 1977 AFL–CIO Convention may deserve quotation—"Although organized labor lost its last big fight for import protection only three years ago, [when the Burke-Hartke bill went down in defeat], AFL–CIO officials say that much has changed since then. The steel, electronics, shoe, textile, and apparel industries have been badly hurt by imports, unemployment has soared, and multinational operations have suffered a black eye for overseas bribery. The 'new reality' says a union economist is that the public no longer perceives protectionism as a bad thing" (*Business Week*, December 26, 1977). In this connection note that the House has already organized a 150-member steel caucus and a 229-member fiber caucus to defend the interests of the steel and textile industries (*The Wall Street Journal*, December 29, 1977), and that a subcommittee of the House Ways and Means Committee has voted to override President Carter's decision to reject the recommendations of the ITC for increasing duties on metal fasteners.

[23] A case in point is the imposition of antidumping duties, amounting to $46 million in March 1978 on Japanese-made television sets imported in 1972 and 1973.

[24] An example of apparent harassment of foreign exporters is the simultaneous initiation of countervailing, anti-dumping, and escape clause action against imports of bicycle tires and tubes from Korea.

[25] Cf. e.g. *Le Monde*, April 4, 1978 and *The Wall Street Journal*, April 24, 1978.

[26] On the latter, see the favorable reactions in the Italian press to the author's speech on the "new protectionism" on March 31, 1978.

[27] *The Economist* (December 24, 1977) reports on the increasing number of anti-dumping cases in the EEC and the increase in the "Commission's anti-dumping staff from three to 10 to cope with the burgeoning work load."

At the same time, while the application of protectionist measures in the United States is circumscribed by legislation, in Western Europe as well as in Japan, protectionism often takes the form of discretionary measures by national governments. Such "occult" measures, which do not find their origin in legislation, present a particular danger for foreign countries, and especially to developing countries, both because legal recourse is lacking and because they create additional uncertainty.

Limiting attention to protectionist measures actually taken by the industrial countries, one may cite an estimate by the GATT Secretariat, according to which the application of these measures over the last two years has led to restrictions on 3 to 5 percent of world trade flows, amounting to $30–50 billion a year (*The New York Times*, September 23, 1977). Reference may further be made to a list prepared by the Taiwanese government on restrictions affecting manufactured exports. The list includes one item for 1975, nine items for 1976, and 33 items for 1977, of which seven are still under investigation.

Government aids to industry

Prior to the oil crisis, government aids were used in the major European countries as well as in the United States principally in favor of the shipbuilding industry. Furthermore, regional aids provided in Western Europe benefited certain industries that are concentrated in depressed regions.

Government aids, often granted under the heading "rationalization", have come into greater use since the 1974–75 recession. They take a variety of forms, including direct subsidies as well as preferential tax and credit treatment. These aids provide indirect protection to domestic industry by reducing its production or sales costs.

The German government provides 75 to 90 percent of the difference between the full-time wage and the wage earned by workers who had to be put on a part-time basis because of unfavorable business conditions. This scheme subsidizes weak industries indirectly as they are likely to have proportionately more part-time workers. In turn, other European countries have directly or indirectly subsidized employment. These measures together with the introduction of regulations making it difficult to fire workers, have contributed to labor hoarding.

A case in point is the British Temporary Employment Subsidy Scheme that compensates firms for keeping workers on the job who would otherwise be no longer needed. In 1977, about one-half of benefits under this scheme accrued to textiles, clothing, and footwear industries that reportedly received a subsidy equivalent to about 5–10 percent of their total production cost. At the same time, as *The Economist* (January 14, 1978) notes, little effort has been made to put pressure on subsidized companies to rationalize their operations. It would appear, then, that the subsidy provides an additional protection to the three industries without contributing to adjustment.

While employment schemes are not industry-specific, they tend to benefit labor-intensive industries which have higher than average unemployment rates. In several countries, government aids have also been provided to specific industries. This is the case in particular in France where the automobile, data-processing, pulp and paper, steel, and watch industries have received various forms of government aids. Whatever their avowed purpose, these aids will shore up, and hence protect, weak industries that find it difficult to face foreign competition. The takeover of insolvent firms by the government, and the financing of their deficits as well as the deficits of other state-owned firms from public funds, have had similar effect in Italy.

Government aids applied by the individual Common Market countries discriminate against imports from member as well as from non-member countries. In turn, in several instances, actions have been proposed, or have actually been taken, on the Common Market level. To begin with, the EEC steel industry has a legalized cartel, Eurofer, which ensures compliance with minimum prices and also set quotas for market sharing among producers. Furthermore, the Common Market has provided financial aid to the steel industry under the Treaty establishing the Coal and Steel Community; the regional fund will reportedly be doubled between 1974 and 1981, in large part to provide assistance to the steel industry; and the EEC Commission is said to be working on a sectoral policy for steel (*The Economist*, October 15 and December 31, 1977).

The Common Market countries have also taken, or contemplate taking, joint action on shipbuilding and synthetic fibers. For one thing, the EEC Commis-

sion has demanded that Japan cuts back its exports of ships (*The Economist*, December 31, 1977) and proposals have been made for establishing a credit scheme aimed at financing domestic shipbuilding. For another thing, it has been proposed to establish a production cartel for synthetic fibers, and "a common market plan to ease the financial pain of redundancies" (*The Economist*, October 15, 1977) is reportedly in preparation.

Apart from shipbuilding where subsidies have long been used, under the Solomon-plan the United States will use a variety of measures, including loan guarantees, accelerated depreciation provisions, and subsidies to research, to aid the domestic steel industry. Also, a variety of export promotion measures are reportedly under consideration.[28]

In Japan, a bill containing special measures for aiding certain industries in difficulties was introduced in February 1978. The bill aims at providing assistance to the aluminum, shipbuilding, steel, and synthetic fiber industries, formalizing and extending aids that have been provided in the past. Its application may also be extended to other industries, some of which have been beneficiaries of government assistance in the past.[29]

International cartels and market sharing

While government aids under the guise of the rationalization of domestic industries have led to moves aimed at cartelization in the steel, shipbuilding, and synthetic fiber industries in the European Common Market, suggestions have further been made for cartelization on the world level. In this connection, reference may be made to statements by Raymond Barre, the French Prime Minister, "to define collective rules for an orderly growth of international trade . . ." [30] in the framework of "a genuine organization international trade" and "organized liberalism".[31] It has been proposed that the definition of "collectively defined and applied rules which will generate conditions for growth security and dependability in trade . . . should be one of the main objectives of the international negotiations to be held in the coming months; they must not simply repeat the negotiations of the last 20 years." [32]

Negotiations on the organization of international trade would cover a variety of industries, including steel and shipbuilding that have experienced worldwide overcapacity; some sophisticated industries, such as aircraft and computers, where the United States is in a particularly strong position and infant industry arguments are invoked in favor of European producers; [33] as well as industries such as textiles, shoes and electronics, where competition on the part of developing countries and Japan is feared.[34]

While the French government proposals may have aimed at taking the wind out of the sails of the domestic opposition and have not again been voiced since the parliamentary elections held in March 1978, moves toward the establishment

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[28] According to the New York Times, (April 2, 1978), these include "fast writeoffs when companies develop new facilities to serve export markets, tax credits for those that establish foreign sales offices, a new tax program on exports tailored principally for medium-sized companies, a system of information-exchange to promote greater exports, a Government loan program for companies that introduce a new product line for exports, and a beefed-up operation (in money and personnel) for the existing Commerce State export-development activities."

[29] It has been reported, for example, that "when the fast-growing computer firms in Japan began to have difficulties with their cash flow situation, the Japanese government organized a leasing company to buy computers and handle the leasing, thus providing a fast injection of cash and reducing the ongoing capital burden." (H. B. Malmgren, "International Order for Public Subsidies," *Thames Essay No. 11*, London, Trade Policy Research Centre, 1977, p. 24.)

[30] Statement made at the National Press Club in Washington on September 16, 1977 and quoted in the press release of the French Embassy.

[31] Foreign Trade Minister André Rossi in *Le Monde* July 27, 1977 and Raymond Barre in the *Journal de Genève*, September 15, 1977.

[32] *Journal de Genève*, September 15, 1977—As noted above, the negotiations of the last 20 years have led to a considerable expansion of trade and economic growth through trade.

[33] According to Raymond Barre, "when a country develops a sector that is indispensable to the structural equilibrium of its economy but unable to meet normal competition until it reaches a sufficient size, that country may rightfully take such steps as are necessary to protect this activity from being destroyed while it is vulnerable" (*Journal de Genève*, September 15, 1977).

[34] As Raymond Barre expressed it, "France cannot allow international competition to develop under conditions that would throw its economic structures into confusion, bring about the sudden collapse of whole sections of its industry or agriculture, put thousands of workers out of work, and jeopardize its independence by eliminating essential activities" (*L'Aurore*, March 25, 1977).

of world-wide cartels have been made in the shipbuilding and steel industries. In the shipbuilding industry, market sharing arrangements have been proposed in the framework of the OECD that would entail a division of new orders between the European countries, Japan, and the developing countries, together with increases in the prices charged by Japanese producers (*Business Week*, December 5, 1977). In the steel industry, earlier reports that a steel working-group established in the framework of the Organization for Economic Cooperation and Development (OECD) is "planning to unveil a model for an international system to monitor prices, trade, and structural changes in steel industries in the member countries [that] could provide the basis for 'sectoral' talks on steel . . ." (*Business Week*, November 28, 1977), have been given credence by meetings of United States, Common Market, and Japanese officials allegedly aiming to establish a "world steel agreement" (*The Economist*, April 29, 1978).

III. THE "NEW PROTECTIONISM": AN EVALUATION

The effects of the measures applied

The preceding section examined the emergence of the "new protectionism" in the developed countries since the oil crisis and the 1974–75 recession. It has been noted that the "new protectionism" is characterized by the employment of nontariff restrictions on trade, the granting of government aids to domestic industries, with further attempts made at organizing world trade. This contrasts with the "old protectionism" that involves placing reliance primarily on tariffs. At the same time, various considerations indicate the superiority of tariffs over the measures employed, or proposed to be used, under the aegis of the "new protectionism."

To begin with, tariffs are instruments of the market economy. Consumers make their choice between domestic and imported goods and among alternative foreign suppliers on the basis of price, quality, delivery dates, and other product characteristics, and domestic as well as foreign producers compete in the market without government interference or quantitative limitations. Also, tariffs do not inhibit shifts in trade patterns in response to changes in comparative advantage that are reflected by changes in relative costs.

In turn, nontariff measures interfere with the operation of the market mechanism by restricting consumer choice and limiting competition between domestic and foreign producers. The use of nontariff measures also involves administrative discretion that introduces arbitrariness in the decision-making process, when the decisions actually taken are affected by the relative power position of various groups. With consumer groups generally having less influence on decision making than pressure groups representing various segments of labor and business, then the new protectionism involves a bias towards restrictive measures.

At the same time, limiting imports in quantitative terms increases the market power of domestic producers, thus enabling them to raise prices, when restrictions applied to raw materials and intermediate products may spread forward as users seek to offset the higher prices of their inputs.[35] Also, incentives for improvements in productivity are reduced as a result and there is a tendency to freeze production patterns, thereby obstructing changes in international specialization according to shifts in comparative advantage.

Quantitative limitations on trade interfere with the market mechanism in the exporting countries, too. With allowed exports falling short of the amount producers would like to sell at the going price, they may collude or the government may apportion among them the amount that can be exported. This, in turn, may entail discriminatory pricing, with higher prices charged in export than in domestic markets. Foreign firms may also attempt to evade the restrictions through additional processing (e.g. steel), changing the basic material used (e.g. textiles), or shifting the place of production of countries which enjoy a preferential (e.g., television sets).

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[35] These conclusions also apply to the use of reference prices as an instrument to limit imports, as evidenced by the 5.5 percent increase in trigger prices on steel as of July 1, 1978 and the demands for the imposition of trigger prices on wire products in the United States. It has been suggested that steel-using industries will also request increased protection, since "distortions arising in steel affect the international competitive position of all steel users—from producers of nuts and bolts to manufacturers of sophisticated machinery" (*New York Times*, May 11, 1978).

Apportioning quotas among exporting countries also involves interference with the market mechanism. Maintaining historical market shares in the allocation process discriminates against new exporters while changing market shares is subject to discretionary decision-making. At the same time, the decisions taken will be influenced by the bargaining power of the importing country and the actual and potential exporters, respectively, generally favoring larger countries over smaller ones.

In cases where both parties can inflict damage, the possibility of retaliation will arise. An example is Australia threatening to impose embargo on uranium in retaliation to European restrictions on steel imports. A retaliatory motive is also apparent in the imposition of antidumping duties by the Common Market on kraftliner-paper imported from the United States in early 1978 as the U.S. had used similar measures against European steel products.

There is further the danger of a cumulative process. Thus, while George Meany, the Secretary General of the AFL–CIO called for "fair trade—do unto others as they do to us, barrier for barrier, closed door for closed door" (*Business Week*, December 26, 1977), measures taken by the United States for alleged offenses by others are bound to elicit foreign reactions. Apart from retaliations, this may take the form of imitative action as in the case of the imposition of trigger prices in the framework of the so-called Davignon Plan for the Common Market steel industry.

International trade is also affected by government aids to domestic industry, which have come into increased use in recent years. Apart from distorting competition among firms located in different countries, these aids represent a further increase in the role of the state in economic life and extend the scope of bargaining. Thus, the government may wish to obtain a quid pro quo for its aid in the form of stipulated levels of employment, the regional allocation of production etc. At the same time, within particular industries, inducements are provided for collusive action to divide up the "spoils" and to increase bargaining power vis-a-vis the government.

Moreover, government aids become the subject of policy competition in the international arena. This first occurred in the case of shipbuilding as, Japan excepted, substantial subsidies have been provided to the industry in all producing countries. Policy competition has further been extended to new technologically advanced industries, such as computers and integrated circuits and, more recently, to some "old" industries, such as steel and textiles.

Note may further be taken of implicit subsidies provided in the form of preferential export credits where, despite the efforts made, the coordination of policies has not been accomplished. In fact, export promotion measures are coming into increasing use, as evidenced by a statement made by K. H. Beyen, State Secretary for Economic Affairs in the Netherlands: "Rather reluctantly, we have been forced to give a certain amount of assistance to our exporting industry when it is threatened with distortion of competition by measures taken in other countries." (Barron's, April 24, 1978).

The dangers of policy competition were first recognized by Richard Cooper in the mid-sixties, when this existed only in an embryonic form.[36] More recently, Assar Lindbeck pointed to the dangers of the trend towards greater government intercention and policy competition. In Lindbeck's view, "It could be reasonably argued that future conferences on international trade should perhaps concentrate on reducing various selective subsidies rather than cutting tariffs. That would have the additional advantage of perhaps stopping, or even reversing, the enormous concentration of economic powers to central planning administration and politicians, which is perhaps the major consequences for our societies of selective interventions." [37]

The international organization of trade has been proposed, in part, in order to limit policy competition. It also represents a natural outgrowth of collusive action on the national level, inasmuch as national cartels would have limited power in an international economy characterized by strong trade ties among the countries concerned. Orderly marketing arrangements and other forms of quantitative restrictions entailing the division of markets among exporting countries, too, gave an impetus to the international organization of trade.

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[36] R. N. Cooper, *The Economics of Interdependence: Economic Policy in the Atlantic Community*, New York, McGraw Hill, 1962.

[37] Assar Lindbeck, "Economic Dependence and Interdependence in the Industrialized World," in *From Marshall Plan to Global Interdependence*, (ed. L. Gordon), OECD, Paris, 1978, p. 82.

These developments are apparent in the European Common Market, where measures taken on the national level to provide financial aid to particular industries and to limit imports have given rise to efforts at cartelization and trade restrictions on the Common Market level. Proposals for cartelization have come from the EEC Commission in the guise of the rationalization of industry as well as from industries that expect to benefit from cartelization. Apart from the shipbuilding, steel, and synthetic fibers industries, such proposals have been put forward in regard to automobiles, chemicals, and shoes (*Business Week*, March 27, 1978).

The Common Market experience points to the tendency of cartelization to spread among industries. This may occur along the chain of input-output relationships as the cartelization of an input-producing industry affects the costs of the input-using industry, or, in the form of imitative behavior. At the same time, experience shows that cartelization tends to reduce the scope for improvements in productivity that may have been its raison d'être in the first place. This is because, under market-sharing arrangements, producers would derive little benefit from improving productivity as they are enjoined from expanding their sales, whereas higher-cost firms can continue their operations without having to fear competition from lower-cost rivals.[38]

An oft-cited example is the limitations imposed on the sales of small and medium-scale steel producers in Italy's Brescia region, who produce reinforcing rods and various other steel products in the framework of the EEC steel cartel. In an effort to maintain market shares, larger firms in the EEC countries that had higher production costs objected to sales by the Bresciani producers at low prices. The process of bargaining, in turn, has been affected by political considerations, in part because several of the high-cost firms are state-owned and in part because the governments of the individual countries wish to defend the interests of their national industries.

Similar problems are bound to arise in the framework of the recently established cartel of the eleven largest EEC producers of synthetic fibers, which would freeze existing market shares. With small European producers and the European subsidiaries of American companies not being a party to the agreement, and non-European producers having different objectives, the potential for conflict is considerable.[39]

The difficulties multiply if the organization of trade or production is attempted on the world level, where the decisions concern not only the division of markets among the producers of a single country or of the European Common Market but among producers of the major developed and developing countries. Bargaining and international politics will now increasingly take the place of market forces, with a tendency to freeze existing patterns, thereby discriminating against new producers, obstructing changes in comparative advantage, and foregoing the benefits that may be obtained from shifts to lower-cost sources.

The employment argument

The deficiencies of national and international cartels are well-illustrated by the experience of the depression of the thirties.[40] However, just as in the thirties, the argument has been put forward that there is need for cartelization for the sake of employment that is threatened by foreign competition.

In recent years, employment arguments have been directed largely to the development countries that are said to be encroaching on the markets of the developed nations and to have contributed to unemployment in the latter. This contention leaves out of account the increase in employment that is generated in the developed nations' through their exports of manufactured goods to the developing countries. In fact, since the oil crisis, these exports have increased more than the imports leading to a substantial improvement in the trade balances of the developed nations with the non-oil producing developing countries in manufactured goods. The relevant figures for 1973 and 1976 are $3.0 and $5.3 billion in the

[38] For an excellent discussion, see Jan Tumlir, "The New Protectionism, Cartels, and the International Economic Order," *op. cit.*

[39] According to press reports, while "one commission official closely involved in the arrangement said he hoped the United States companies would abide by the rules," the manager of one of the subsidiaries stated that he "will operate on the basis of a free market" (*New York Times*, May 17, 1978).

[40] Cf. e.g. C. D. Edwards, "International Cartels as Obstacles to International Trade," *American Economic Review*, March, 1944, pp. 330–39 and B. F. Hoselitz, "International Cartel Policy," *Journal of Political Economy*, February 1947, pp. 1–28.

United States, $11.3 and $16.5 billion for the European Common Market, and $7.7 and $13.2 billion for Japan.[41]

It may be conjectured, then, that during the period of the 1974–75 recession and its immediate aftermath, employment in the developed nations actually benefited from trade in manufactured goods with the non-oil producing countries. This result reflects the fact that the developing countries spend practically all their foreign exchange earnings and that they have borrowed additional amounts on foreign financial markets. Such borrowing, and the continued economic growth of the developing countries, are in turn predicated on their success in exporting.

Note further that the developing countries have assumed increasing importance as markets for the manufactured exports of the developed nations. In 1976, the share in these exports, excluding trade between USA and Canada, as well as within and between EEC and EFTA, was 27.9 percent for the non-oil producing developing countries and 45.7 percent if exports to the oil-producing developing countries are added.[42]

It appears, then, that the developed nations have benefited from the continued economic growth of the developing countries during and after the 1974–75 recession. As these conclusions refer to export and import-competing industries combined, one further needs to consider, however, the employment effects of trade on import-competing industries. Available data indicate that fears on the loss of employment in these industries, too, have been exaggerated.

Thus, the findings of various studies indicate that the decline in employment due to import competition is generally small compared to that due to technological change. According to the results of studies sponsored by the International Labor Office, the total elimination of barriers to imports from developing countries would lead to a 1.5 percent decline in manufacturing employment spread over 5–10 years in the developed countries.[43] By contrast, technological change associated with increases in productivity entails an annual displacement of labor of 3 to 4 percent.

These findings have been confirmed by studies of British industries that are particularly sensitive to import competition. Thus, "detailed analyses of the Lancashire cotton textile industry and Dundee jute joint to the dominant role of technical change—in the form of competition from synthetics in both cases and, for cotton textiles, from labor-saving investment—as a cause of labor displacement." [44] On the basis of more recent data, the conclusion is reached that "it is difficult to suggest that any labor-intensive sector except men's shirts and suits suffered between 1970 and 1975 from exceptionally damaging import growth" and that in the textile yarn, fabrics, clothing, and shoe industries, taken together, "productivity growth emerges as twice as important as trade factors in job replacement," when "the job less annually from ldc import competition (less exports to ldcs) is little more than 1.5 to 2 percent in the worst case, clothing, 0.8 percent annually for cotton textile fabrics, 0.4 percent for footwear, and negligible for textile yarn." [45]

Also, during the 1963–71 period in the United States, "The loss in job potential in import-competing industries due to foreign trade has averaged about 44,000 jobs per year—about 0.2 percent of total manufacturing employment and an even more minute fraction of the total U.S. labor force. The loss of job potential due to increased labor productivity was about six to nine times as great as the loss due to foreign trade in import-competing industries." [46] At the same time, one-half of the estimated job loss was related to imports from developing countries.

Employment losses associated with increased imports from developing countries are likely to have been larger in recent years. However, it should be recognized that, with these countries spending practically all their foreign exchange earnings, restrictions on imports from the developed countries only shift unemployment from import-competing to export industries in the developed nations.

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[41] GATT, *International Trade*, 1976–77. Geneva, 1977.

[42] United Nations, *Monthly Bulletin of Statistics*, February, 1978.

[43] C. Hsieh, "Measuring the Effects of Trade Expansion on Employment: A Review of Some Research," *International Labor Review*, January 1975.

[44] Cited in Vincent Cable, "British Protectionism and Ldc Imports" *ODI Review*, 1977 (2), p. 38. The relevant references are Caroline Miles, *Lancashire Textiles: A Case Study of Industrial Changes*, Cambridge University Press, 1968 and S. McDowell, P. Draper, and A. McGuinness, "Protection, Technological Change and Trade Adjustment: The Case of Jute in Britain," *ODI Review*, 1976 (1), pp. 43–57.

[45] Cable, *op. cit.*, pp. 38–41.

[46] Charles R. Frank, Jr. *Foreign Trade and Domestic Aid*, Washington, D.C., The Brookings Institution, 1977, p. 36.

Now, as the former rely more on unskilled and the latter on skilled labor, the upgrading of the labor force of the developing countries is obstructed as a result, leading to losses in real incomes. As Jan Tumlir eloquently expressed it, "Unemployment is fungible; the jobs which protection could save at the import-competing end of the industrial spectrum would be balanced out by the jobs foregone at the exporting end. The latter are higher productivity jobs requiring better education, high skills. . . . Protection thus restricts an economy's capacity to provide adequate employment for the higher skilled and better educated. . . ." [47]

IV. CONCLUSIONS AND POLICY RECOMMENDATIONS

The risks of protectionism

It has been shown that considerable progress was made in trade liberalization during the postwar period until the oil crisis and the recession of 1974–75. The developed countries eliminated quantitative import restrictions imposed during the Second World War and substantially reduced tariffs on raw materials and on manufactured goods. Furthermore, an increasing number of developing countries adopted export-oriented policies, accompanied by reduced protection.

Trade liberalization led to the rapid growth of world trade. The expansion of world trade, in turn, contributed to economic growth in developed and developing countries alike. For one thing, export expansion favorably affected the growth performance of the developed nations. For another thing, economic growth in the developed nations was transmitted to the developing countries through trade and provided opportunities to these countries to successfully carry out export-oriented policies.

The experience of the first three postwar decades contrasts with that of the depression in the nineteen-thirties, when the imposition of nontariff barriers, the "rationalization" of production, and the establishment of international cartels contributed to the decline in world trade.[48] The nontariff barriers employed during the depression included increased reliance on countervailing and anti-dumping duties, as well as formal and informal (or "voluntary") quotas.[49] Governments also provided aid to their industries in the guise of rationalization and a number of international cartels were formed.[50]

It has been estimated that 42 percent of world trade between 1929 and 1937 was cartelized or was subject to cartel-like arrangements.[51] The League of Nations reports that "international cartels have actually been established in all branches of industry and at practically all stages of production, from industrial raw materials to different types of producers' and consumers' finished goods; minerals and metals and their products; wood, wood-pulp and different kinds of paper; textiles; chemical and pharmaceutical products; glass, earthenware and porcelain; electrical goods, etc. Among the products covered by international cartels, manufactures are preponderant." [52]

Nontariff measures and government aids have again come into increased use since 1974 and efforts have also been made to establish international cartels and cartel-like arrangements. The employment of these measures has, in turn, contributed to a slowdown in world trade. In particular, while world trade rose by 11 percent in 1976, the increase was only 4 percent in 1977 when protectionist actions increased.

The comparisons with the nineteen-thirties should not be interpreted to mean that the measures applied in recent years would be comparable in magnitude. Also, there is still hope that the Tokyo-round of tariff negotiations will succeed. But, tariffs pale in importance compared to the measures of the "new protectionism." Moreover, the experience of the nineteen-thirties indicates the economic costs involved in the application of these measures and the danger that they will multiply through retaliation and imitation.

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[47] Jan Tumlir, "Can the International Economic Order be Saved" *The World Economy*, October 1977, p. 18.

[48] Between 1926–29 and 1931–35 world trade in manufactured goods fell by 28 percent (League of Nations, *Industrialization and Foreign Trade*, Geneva, 145, p. 157)—As beforehand data are expressed in constant prices.

[49] P. W. Bidwell, *The Invisible Tariff*, New York, Council on Foreign Relations, 1939, chs. IV and V.

[50] Cf. e.g. G. W. Stocking and M. W. Watkins, *Cartels in Action*, New York, Twentieth Century Fund, 1946.

[51] Frederick Haussman and Daniel Ahearn, "International Cartels and World Trade, an Explanatory Estimate," *Thought*, Fordham University Quarterly, September, 1944, p. 429.

[52] League of Nations, *International Cartels*, Lake Success, N.Y., 1947, p. 3.

Policies for long-term growth

Just as in the nineteen-thirties, protectionist measures have been invoked on the grounds that imports are responsible for the loss of jobs. This argument is obviously incorrect as far as trade among the developed countries is concerned as the expansion of this trade does not lead, on balance, to a decrease in employment opportunities in the developed world.

Nor is the argument valid as far as trade with the developing countries is concerned. Between 1973 and 1976, the exports of manufactured goods from the developed nations to the developing countries increased substantially more than their imports of manufactured goods from these countries. It would appear, then, that manufactured trade with the developing countries is likely to have been favorable, rather than unfavorable, for employment in the developed nations. Also, available evidence indicates that in import-competing industries the loss of jobs due to increased imports has been relatively small compared to the effects of technological change.

The high rate of unemployment in the developed nations, then, cannot be attributed to international trade. Rather, unemployment has been the result of the policies applied by these countries, which have unfavorably affected domestic production and investment in particular in Western Europe and Japan.[53] Nor can one expect that protection would reduce unemployment; it will only shift unemployment from lower-skilled labor used in import-competing industries to higher-skilled labor used in export industries.

Apart from employment considerations, the desire on the part of the individual countries to improve their balance-of-payments position has created pressures for the application of protectionist measures. We find a "fallacy of competition" here as protectionist actions taken by any one country can improve its position only temporarily as the OPEC surplus must be matched by the collective deficit of the non-oil countries.

At the same time, the taking of protectionist actions by a number of countries simultaneously cannot fail to be detrimental to all. National incomes will be lower as a result since resources are not used to best advantage and potential economies of scale obtainable in export industries are not exploited. Furthermore, protection reduces the pressure for productivity improvements in import-competing industries whereas possible improvements in export industries are foregone.

The application of protective measures is also likely to adversely affect investment activity in the developed nations. While protection may not lead to increased investment in high-cost import-competing activities which have a precarious existence, it may discourage investment in low-cost export activites which suffer discrimination under protection. The direct subsidization of high-cost activities from government funds will have similar effects by syphoning off funds that could have otherwise been used for investment in low-cost activities.

While protection tends to lower the rate of economic growth through its adverse effects on national income and investment activity, measures aimed at accelerating economic growth would lessen pressures for protection. Such measures, involving increased inducement to investment and lessening the rigidities introduced through government measures and labor legislation, would have to be carried out with special vigor in the surplus countries, particularly Germany and Japan, both to offset the deflationary effects of the appreciation of their currencies and to reduce asymmetries in the balance-of-payments of the developed countries.[54] at the same time, it should be recognized that the deficit visa-vis OPEC is not immutable as there are possibilities for reducing the imports of energy. This would require, in particular, the adoption of appropriate policies in the United States to lower the consumption, and to increase the production, of energy.

Problems of adjustment

It has been concluded that, in leading to higher incomes and employment, growth-oriented policies would reduce protectionist pressures in the developed countries. In turn, the avoidance of protectionism would contribute to economic

[53] Cf. Bela Balassa, "The Locomotive Theory: An Eclectic View," paper prepared for the Seminar on the 'Locomotive Theory' held at the American Enterprise Institute for Public Policy Research on April 13, 1978.

[54] For a detailed discussion, cf. "The Locomotive Theory: An Eclectic View" *op. cit.*

growth that requires a continuing transformation of the industrial structure, entailing shifts from lower to higher productivity activities.[55] This conclusion also applies to the developing countries whose economic growth depends to a considerable extent on the availability of trade opportunities in the developed countries as well as on their own policies for making use of these opportunities.

More generally, trade permits economic growth to proceed in the world economy through shifts in product composition. This entails the developed countries increasingly specializing in research and technology intensive products; the semi-industrial developing countries upgrading their exports which are now based largely on unskilled labor; and the less developed countries proceeding to export unskilled-labor intensive manufactures.[56]

Structural transformation cannot proceed smoothly and creates problems of adjustment in industries that decline in absolute or in relative terms. Adjustment problems, in turn, have often given rise to efforts to reduce the speed of adjustment. This has been the case, in particular, when adjustment in developed countries was presumed to have been triggered by increased imports.

The objective of reducing the speed of adjustment has been pursued by the measures of the "new protectionism" as well as by adjustment assistance as it has been applied in practice in most developed countries. Thus, in reporting the results of a comparative study, Goran Ohlin concludes that "adjustment assistance seems in practice often designed to bolster the defences against imports rather than to clear the ground for them [and] public policy has sought to delay the transfer of resources." [57]

In this connection, several questions need to be raised, including the appropriate purpose of adjustment policies, the choice between import restrictions and adjustment assistance, as well as the choice of the particular measures to be employed. These questions will be taken up briefly in the context of the industrial transformation of the developed countries.

As to the first question, adjustment policies that artificially bolster employment and raise profitability in high-cost industries by reducing the cost of labor and other inputs or by increasing the price received by producers, run counter to the process of industrial transformation that is necessary for continued growth. Rather, policies should aim at promoting the movement of resources from lower to higher productivity activities.

Nor should one single out imports as being the cause of reduced employment and profitability as, more often than not, this has been the result of technological change. Also, it is incorrect to argue that losses suffered by domestic nationals due to increased imports require different treatment than losses due to technological change on the grounds that the beneficiaries are foreign nationals in the first case and domestic nationals in the second. In fact, with higher imports leading to increased exports in the process of adjustments, the beneficiaries will be domestic nationals in the second case, too.

In view of these considerations, it is preferable to use adjustment assistance rather than import restrictions to ease the problems of adjustment to changing conditions in domestic industry. The question remains, however, what kind of adjustment measures, and government aids in general, should be utilized for this purpose.

It has been suggested that the measures applied should promote the movement of resources from lower-productivity to higher-productivity industries. This is in the interest of the developed countries as it contributes to improved resource allocation and rapid economic growth. It is also in the interest of the developing countries because of the gains they can obtain through international specialization. The community of interests is further enhanced by reason of the fact that in contributing to the foreign exchange earnings of the developing countries, the application of the proposed mesures would permit them to avoid high-cost import substitution policies that would have adverse effects for all.

The described objectives would be served if, rather than subsidizing production and employment in high-cost industries, the developed countries were to encourage

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[55] On this point see R. Blackhurst, N. Marian, and J. Tumlir, "Trade Liberalization, Protectionism and Interdependence," *GATT Studies in International Trade No. 5*, Geneva, November 1977.

[56] Cf. Bela Balassa, "A 'Stages' Approach to Comparative Advantage," World Bank Staff Working Paper No. 256, Washington, D.C., May 1977.

[57] OECD Development Research Centre, *Adjustment for Trade: Studies on Industrial Adjustment Problems and Policies*, Paris, 1975, pp. 9, 11.

the expansion of efficient activities and ensure the transfer of resources to these activities. Appropriate measures include reducing government-induced rigidities in labor markets, retraining workers, and promoting research and development.

Establishing an international code of good conduct

It has been concluded that adjustment assistance will be preferable to import restrictions for easing the adjustment of domestic industries. Nevertheless, adjustment assistance may not carry the entire burden, especially if sudden changes in trade flows occur, necessitating the use of safeguard measures to limit the growth of imports. At the same time, the application of these measures should be made subject to internationally-agreed rules.

Article XIX of GATT provides an international code for the application of safeguard measures. This article has rarely been applied, however, in part because a country invoking it risks retaliation and in part because import restraints are to be imposed in a nondiscriminatory fashion. Rather, countries have invoked safeguard measures by unilateral action or on a bilateral basis.

Article XIX would need to be reinterpreted, so that it becomes a credible instrument which can replace presently applied national safeguard measures. One should also avoid making it overly restrictive. Finally, safeguards should remain temporary, which is not the case under Article XIX.

These objectives would be served by retaining the "injury clause" in Article XIX while leaving it to appropriately constituted institutions in the individual countries to judge whether injury has been sustained or threatened and to determine the measures to be employed. Decisions by national bodies should, however, be subject to multilateral surveillance in the sense that exporting countries would have the right to retaliate if an international committee established for this purpose finds that safeguard action was not warranted or the measures used were excessive.

Also, while it would be desirable to maintain the nondiscriminatory application of safeguard measures, at the minimum no exporter should be required to reduce its share in the domestic market of the country concerned. At the same time, imports from new developing country producers should not be subjected to limitations. Finally, the temporary nature of the safeguard measures would be expressed by their limited duration in time; the progressive liberalization of import restrictions during the time period of their application; and the exclusion of the reimposition of the safeguard measures.[58]

Export subsidies, too, are subject to international rules under Article VI and XVI of GATT. However, there would be need to establish stricter obligations for developed countries and to introduce exceptions for developing countries. At the same time, these exceptions would be circumscribed so as to ensure that the subsidies applied by developing countries compensate for, but do not create new, distortions with progressively stricter rules applying when developing countries showed superior competitiveness in some products. And, finally, in regard to export subsidies other than those for which developing countries are granted exceptional treatment, it would be desirable to make claims for injury subject to internationally agreed rules, with international surveillance of the manner in which they are administered.

It would further be desirable if, in addition to safeguard measures and export subsidies, the international code of good conduct covered adjustment assistance and government aids in general. This is because government aids affect foreign producers in domestic and foreign markets and they have increasingly become subject to international policy competition.

As regards adjustment assistance, governments may agree to forego taking measures that hinder the movement of resources from low-productivity to high-productivity industries. In turn, positive measures aimed at encouraging the movement of resources should have general incidence affecting all industries in the same way, so that the choice among alternative activities is left to the market mechanism.

There may be cases, however, when the market does not fully anticipate future needs and the application of measures affecting specific industries could not be foregone. Also, assistance to depressed regions can be considered admissible to the extent that such assistance corrects for existing distortions or serves

[58] On the last point, the paper follows suggestions made in an unpublished memorandum by Isaiah Frank.

social goals. Finally, whatever its rationale, there exist in most countries rules of government procurement favoring domestic industry.

An international code of good conduct should provide, first of all, for transparency in the matter of government aids. This would take the form of making explicit the measures actually applied by incorporating them in public regulations, whenever this is not presently the case. Secondly, the budgetary cost of aids provided to specific industries and regions should be estimated as this is done in the Report on Subsidies in Germany and in Economic Impact Statements in the United States. Thirdly, it would be desirable to undertake commitments to "freeze" the status quo as regards government aids in the same way as tariffs are bound in GATT. Finally, some general rules should be defined on the use of government aids by individual countries.

Greater transparency, estimating the budgetary cost involved, freezing the status quo, and establishing general rules on their application would provide a basis for negotiating reductions in government aids. Such negotiations may be initially undertaken by the developed countries, and patterned on actions taken in the framework of the European Common Market. They would necessitate establishing machinery, possibly in the framework of the OECD, to procide international surveillance of the application of government aids as well as a forum for continuing discussions and negotiations.

The Tokyo Round negotiations provide an opportunity for establishing an international code of good conduct on safeguards, export subsidies, and government aids. This may take the form of an interpretation of GATT regulations, so as to avoid the difficulties involved in changing the existing provisions of the General Agreement.

Parallel with these efforts, it would be desirable to reach agreement on across-the-board reductions in tariffs and on lessening disparities in tariffs on individual products. Further, it would be desirable to liberalize trade in agriculture commodities, in particular in products of export interest to the developing countries.

Policies by developing countries

Developing countries have a considerable interest in establishing acceptable and credible international rules on the application of measures affecting their exports. The exports of these countries have been repeatedly curbed by the imposition of restrictions by the developed countries; they have little bargaining power to forestall the application of new restrictions on particular commodities; and the threat of the imposition of restrictions creates considerable uncertainty for them. Developing countries need a stable environment in which the shifts in the international division of labor necessary for their rapid economic growth can take place.

At the same time, developing countries would be well-advised to avoid demanding unilateral concessions that would jeopardize the establishment of international rules, since they stand to lose more through the continuation and the extension of the "new protectionism" that what they may gain from any concessions. Nevertheless, while individual developing countries have little bargaining power, they could influence the outcome by adopting a joint position. The same observation applies to tariff reductions in the Tokyo Round, where developing countries could press for reductions on items of export interest to them.

In this connection, it should be emphasized that developing countries have much more to gain from multilateral tariff reductions than from maintaining preferential margins, on which UNCTAD efforts have concentrated in recent years. This is because tariff reductions do not involve quantitative limitations on trade and are not reversible while imports under preferences are subject to quantitative limitations and can be revoked on short notice.

Semi-industrial developing countries would also be well-advised to reduce existing protection. To begin with, the existence of high protection in some of these countries is used as an argument for protection in the developed nations. Furthermore, offers made to reduce trade barriers would strengthen the bargaining position of the developing countries in the Tokyo Round of negotiations. Finally, lowering protective barriers would lessen the need for (explicit) export subsidies that are threatened by countervailing action. This would mean putting greater reliance on the exchange rate since one may com-

pensate for reductions in import tariffs and export subsidies by a devaluation.[59]

Semi-industrial developing countries would also be well-advised to enter into bilateral agreements with developed nations on liberalizing trade as it has recently been done in U.S.-Mexico relationships. This would be of especial importance as far as trade with Western Europe is concerned. In this connection, it should be recognized that several of the semi-industrial countries have sufficiently large markets so that they can offer meaningful concessions.

At the same time, the chances for avoiding the imposition of restrictions would be increased if semi-industrial developing countries upgraded and diversified their exports. In particular, it would be desirable to expand the exports of commodities where firms in developed countries can respond by changing their product composition, which is not possible in industries consisting largely of one-product firms, such as textiles, clothing, and shoes. The possibilities of expanding exports without encountering restrictions would be further increased by diversifying export markets, in particular by seeking export outlets in the rapidly growing OPEC countries.

Finally, it would be desirable that semi-industrial developing countries gradually abandon the exports of simple, unskilled-labor intensive manufacturers for the benefit of countries at lower levels of development. The latter countries, in turn, would have to follow appropriate policies that would not discriminate against exports.

Representative LONG. Mr. Cline, if you will start, we would be pleased.

STATEMENT OF WILLIAM R. CLINE, SENIOR FELLOW, THE BROOKINGS INSTITUTION

Mr. CLINE. Thank you very much, Mr. Long. It's a great pleasure for me to testify before this committee on the subject of international trade. I shall focus my comments upon the outlook for trade policy here and abroad, and in particular on the potential economic effects of the Tokyo round of multilateral trade negotiations currently in progress in Geneva.

Before turning to the Tokyo round, a subject on which we have recently published a book at the Brookings Institution, I would like to make a few remarks on the current tides of protectionism. The forces of protectionism have gathered strength both here and abroad in the past few years, in large part as the result of high domestic unemployment. At home, we have imposed voluntary quotas on shoes from Korea and Taiwan, and on color television sets from Japan. We have instituted a trigger-price mechanism that in practice restricts steel imports, and there are calls for much more restrictive measures.

Abroad there are increasing restrictions in Europe on imports into sensitive sectors such as steel, shipbuilding, electronics, textiles, and shoes, and there is a move toward "organized trade" or cartels. Nevertheless, there are reasons for believing that the United States will not go the route of higher protection. A major reason, in my view, is that the public is becoming more and more concerned about inflation, and Members of Congress as well as the administration will be more and more reluctant to accept the protectionist demands of specific interest groups at the price of pushing this country back toward double-digit inflation.

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[59] For a detailed discussion, see Bela Balassa, "Export Incentives and Export Performance in Developing Countries: A Comparative Analysis," *Weltwirtschaftliches Archiv*, March 1978.

Let me turn, however, to the principal subject of my prepared statement: the Tokyo Round of trade negotiations.

The study recently published by the Brookings Institution develops a model of the economic effects of alternative "tariff-cutting formulas" which might be agreed upon in the Tokyo Round of negotiations.

In order to estimate the effect of tariff cuts on imports, the calculations apply empirically estimated "import elasticities," which tell the percentage change in import demand for a given percentage change in the price of imports. These elasticities are applied to the base level of imports and the percentage change in consumer price caused by a particular tariff cut. Increased exports are calculated by summing up all the other countries' increased imports from the supplier in question. Welfare effects—the consumer savings from importing rather than buying more costly home goods, and the production efficiency gained by shifting resources to more efficient sectors—are computed on the basis of the import increase and the height of the tariff.

These so-called static welfare gains are expanded to an approximate estimate of total welfare gains, including effects of economies of scale and induced investment. These calculations are made on the basis of European economic integration from the experience of other studies.

Employment effects are calculated by applying "job coefficients," both direct and indirect, to account for intermediate goods requirements, to the changes in imports—job loss—and changes in exports—job gain. The principal results of the estimates on tariff liberalization are the following:

First, the so-called Swiss formula for cutting tariffs—in other words, the compromise formula which has emerged from the negotiations—would cut tariffs by about 40 percent on average and would increase annual imports of industrial countries by more than $7 billion, using 1974 import values as the base. This outcome for tariff cuts would represent a fairly liberal compromise between the original U.S. approach—a 60-percent tariff cut—and the much more restrictive formula originally suggested by the EEC.

Second, the economic benefits resulting from the tariff cuts would probably be close to $7 billion annually. These benefits include savings to consumers, gains from moving resources out of inefficient sectors, stimulus to investment, and increased economies of scale. This estimate may be conservative, because it does not include macroeconomic output gains made possible when the anti-inflationary impact of liberalization permits more expansive macroeconomic policies; nor does it include effects such as the stimulus of outside competition to increased technical change.

The economic benefits of liberalization would continue year after year and grow along with the trade base, so that their once-for-all value would reach approximately $130 billion. Of this total, the United States would stand to gain about $40 billion. Therefore, the economic stakes in the Tokyo round are large, both for the United States and for the world.

Third, these economic benefits would not come at the cost of serious dislocation of workers either here or abroad. In the United States, tariff cuts according to the Swiss formula would cause a loss of about 90,000 jobs because of increased imports, or about one-tenth of 1 per-

cent of the U.S. labor force, but in return, about 120,000 new export jobs would be created.

Even in individual "sensitive" industries, labor displacement would be limited. For example, in the unlikely event that both tariffs and quotas were liberalized in textiles, job losses would reach only about 2 percent of employment even in that sensitive sector. Moreover, all tariff cuts would be phased in over periods of 5 years or longer, giving ample time for labor to relocate. In terms of benefits relative to costs, our calculations show that the economic benefits of U.S. tariff liberalization would be 80 times as large as labor adjustment costs. We find similar results for Canada, Japan, and the EEC.

Fourth, trade balances would not be jeopardized by liberalization. The United States and Japan would experience minor trade balance increases, and the EEC and Canada, similar decreases; and by and large the effects of the negotiations are evenly balanced, in terms of trade results of the tariff cuts.

The Brookings study also examines nontariff barriers. The study converts European and Japanese agricultural nontariff barriers into tariff equivalents, and then applies the same basic model as used for tariffs to compute the trade effects and economic benefits that would result from liberalization.

These estimates show that a 60-percent cut in the tariff equivalent of agricultural nontariff barriers would cause an estimated increase of U.S. exports of approximately $500 million and a $300 million increase for Canada, and on the other hand, a trade balance deterioration of $1.9 billion for Europe and of $280 million for Japan.

The principal point here is that these figures are all lower than the corresponding effects for tariff liberalization, primarily in manufactures, and this result suggests that the importance of agricultural nontariff barriers in the negotiations has been overstated.

It is true that for Europe and for Japan themselves the welfare effects would be very large in agricultural nontariff barriers because this protection is high, and it is also true that for Europe and Japan, the job effects would be somewhat larger than in the tariff sector because agriculture tends to be labor intensive.

Even in these sectors, however, the employment effects would be relatively limited.

Our study also makes estimates of the impact of liberalizing trade in Government procurement. We estimate that a 60-percent cut in the direct and indirect or explicit and implicit Government procurement discrimination would cause an estimated increase of imports into the United States of $600 million and an increase of imports into the EEC of about $550 million.

These effects are significant, but again they are small relative to the basic effects in the central tariff negotiations.

We do not have quantitative estimates for the other nontariff barriers, including discrimination by product standards, use of Government subsidies and countervailing duties, quantitative restrictions including voluntary export quotas, and safeguards.

It is clear, however, that these and other nontariff barriers constitute a major impediment to trade as well as an ongoing source of political-economic antagonism among the industrial countries.

The "codes of conduct" being negotiated in these areas should make a significant contribution to liberalizing trade. They are also likely to act as the catalyst to formation of an infrastructure that will permit ongoing trade consultations among the industrial countries once the Tokyo round is over.

In summary, the Tokyo round represents an opportunity for another major forward step in the historical process of trade liberalization which has already contributed so much to international prosperity and growth in the postwar period. The economic benefits of liberalization will be substantial and its costs extremely limited. The crucial question is whether the United States and the other industrial countries will move forward to take advantage of this opportunity for mutual economic benefit, or whether instead they will withdraw into a new phase of protection in response to the demands of special interest groups at home and in counterproductive attempts to deal in isolation with problems of international economic interpendence that require cooperative solutions among nations.

I would like to add a few words, departing from my prepared statement, with respect to trade relations with the developing countries.

I would simply like to signal one important issue, that is the issue of countervailing duties. The Presidential authority to waive the application of countervailing duties expires in January of this coming year, and there are a number of developing countries that use export subsidies in order to give incentives to their exports primarily to offset the disincentives that their economic structures impose against exports.

In particular, countries that have overvalued exchange rates and controls on imports create a large incentive for the producer to sell to the domestic market and ignore the export market. These countries need some form of compensating stimulus to exports, and they typically use export subsidies for this purpose.

It seems to me that we are poised for a trade war of sorts with some important developing countries, especially Brazil, if we do not have some change between now and January.

If there is a negotiation whereby the United States accepts the principle that counterveiling duties are only imposed when there is injury in the product as may come out of the Tokyo round, then much of this problem will be addressed, because basically many of these imports being subsidized from developing countries are not causing serious injury.

At the same time it seems to me that there is a need for additional legislative authority for the executive branch to enter into bilateral negotiations and agreements with some developing countries that would permit those countries to phase in a period of 5 or more years a number of radical changes in their structure of incentives to exports and their disincentives to exports in order that they ocould eliminate some of the distortions in their economies that make the subsidies necessary in the first place.

Thank you very much.

[The prepared statement of Mr. Cline follows:]

PREPARED STATEMENT OF WILLIAM R. CLINE *

INTERNATIONAL TRADE

It is a great pleasure for me to testify before this Committee on the subject of international trade. I shall focus my comments upon the outlook for trade policy here and abroad and in particular on the potential economic effects of the "Tokyo round" of multilateral trade negotiations currently in progress in Geneva.

Before turning to the Tokyo round, a subject on which we have recently published a study at the Brookings Institution,[1] I would like to make a few remarks on the current tides of protectionism. The forces of protectionism have gathered strength both here and abroad in the past few years, in large part as the result of high domestic unemployment. At home, we have imposed voluntary quotas on shoes from Korea and Taiwan and on color television sets from Japan. We have instituted a trigger-price mechanism that in practice restricts steel imports, and there are calls for much more restrictive measures. Abroad there are increasing restrictions in Europe on imports into sensitive sectors such as steel, ship building, electronics, textiles, and shoes, and there is a move toward "organized trade" or cartels. Nevertheless, there are reasons for believing that the United States will not go the route of higher protection. A major reason, in my view, is that the public is becoming more and more concerned about inflation, and members of Congress as well as the administration will be more and more reluctant to accept the protectionist demands of specific interest groups at the price of pushing this country back toward double digit inflation.

Let me turn, however, to the principal subject of my testimony: the Tokyo round of trade negotiations.

The study recently published by the Brookings Institution develops a model of the economic effects of alternative "tariff cutting formulas" which might be agreed upon in the Tokyo round of negotiations. In order to estimate the effect of tariff cuts on imports, the calculations apply empirically estimated "import elasticities" (percent change in imports per unit percent change in import price) to the base level of imports and the percentage change in consumer price caused by a particular tariff cut. Increased exports are calculated by summing up over other countries their increased imports from the supplier in question. Welfare effects—the consumer savings from importing rather than buying more costly home goods, and the production efficiency gained by shifting resources to more efficient sectors—are computed on the basis of the import increase and the height of the tariff. These static welfare gains are expanded to an approximate estimate of total welfare gains (including effects of economies of scale and induced investment) on the basis of the experience of European integration as estimated in other studies. Employment effects are calculated by applying "job coefficients" (both direct and "indirect" to account for intermediate goods requirements) to the changes in import (job loss) and exports (job gain). The principal results of the estimates on tariff liberalization are the following:

First, the so called "Swiss-formula" for cutting tariffs, the compromise formula which has emerged from the negotiations, would cut tariffs by about 40 percent and would increase annual imports of industrial countries by more than $7 billion, using 1974 import values as the base. This outcome for tariff cuts would represent a fairly liberal compromise between the original U.S. approach (a 60 percent tariff cut) and the much more restrictive formula originally suggested by the EEC.

Second, the economic benefits resulting from the tariff cuts would probably be close to $7 billion annually. These benefits include savings to consumers, moving resources out of inefficient sectors, stimulus to investment, and increased economies of scale. The estimate may be conservative, because it does not include macroeconomic output gains made possible when the anti-inflationary impact of liberalization permits more expansive macroeconomic policies: nor does it include effects such as the stimulus of outside competition to technical change. The economic benefits of liberalization would continue year after year and grow along with the trade base, so that their once-for-all value would reach

*The views expressed in this statement are the sole responsibility of the author and do not purport to represent those of the Brookings Institution, its officers, trustees, or other staff members.

[1] William R. Cline, Noboru Kawanabe, T. O. M. Kronsjo, and Thomas Williams, "Trade Negotiations in the Tokyo Round: A Quantitative Assessment" (Washington, D.C.: The Brookings Institution, 1978).

approximately $130 billion. Of this total the United States would stand to gain about $40 billion. Therefore the economic stakes in the Tokyo round are large, both for the United States and for the world.

Third, these economic benefits would not come at the cost of serious dislocation of workers either here or aboard. In the United States, tariff cuts according to the Swiss formula would cause a loss of about 90,000 jobs because of increased imports (or only about one-tenth of one percent of the U.S labor force), but it return about 120,000 new export jobs would be created. Even in individual "sensitive" industries labor displacement would be limited. In the unlikely event that both tariffs and quotas were liberalized in textiles, for example, job losses would reach only about two percent of employment in the sector. Moreover, all tariff cuts would be phased in over periods of five years or longer, giving ample time for labor to relocate. In terms of benefits relative to costs, our calculations show that the economic benefits of U.S. tariff liberalization would be 80 times as large as labor adjustment costs. We find similar results for Canada, Japan, and the EEC.

Fourth, trade balances would not be jeopardized by liberalization. The United States and Japan would experience minor trade balance increases, and the EEC and Canada, similar decreases, but in broad terms the trade results of the tariff cuts would be evenly balanced among all parties.

The Brookings study also examines non-tariff barriers. The study converts European and Japanese agricultural non-tariff barriers into tariff equivalents, and then applies the same basic model as used for tariffs to compute the trade effects and economic benefits that would result from liberalization.

These estimates show that a sixty percent cut in the tariff equivalent of agricultural non-tariff barriers would cause a negative trade balance effect of $1.9 billion for Europe and $280 million for Japan, and positive trade balance effects of approximately $500 million and $300 million for the U.S. and Canada respectfully. These figures are all lower than corresponding effects under tariff liberalization (primarily in manufactures), suggesting that the importance of agricultural non-tariff barriers in the negotiations has been overstated. However, in terms of extra welfare to consumers as well as possible job losses to increase imports, the agricultural non-tariff barriers are quite important in Europe and Japan. This result stems from the facts that agricultural protection is extremely high and that agriculture is labor intensive. Even in the case of agricultural non-tariff barriers, however, liberalization would cause relatively small job losses: approximately one percent to three percent of total labor in Japan, and one-third of one percent of the labor force in the EEC.

With regard to other non-tariff barriers, a sixty percent cut in the degree of protection provided by discrimination in government procurement would cause estimated import increases of $600 million in the United States and $545 million in the EEC, in 1974 values (or one-sixth and one-twelfth respectively of the estimated import increases from a sixty percent cut in tariffs and in agricultural non-tariff barriers). Quantitative estimates are not available for effects of liberalizing other major non-tariff barriers: discrimination against imports by "product standards;" government subsidies and countervailing duties; quantitative restrictions (including "voluntary export quotas") and safeguards. It is clear, however, that these and other non-tariff barriers constitute a major impediment to trade as well as an ongoing source of political-economic antagonism among the industrial countries.

The "codes of conduct" being negotiated in these areas should make a significant contribution to liberalizing trade. They are also likely to act as the catalyst for an infrastructure that will permit ongoing trade consultations among the industrial countries once the Tokyo round is over.

In summary, the Tokyo round represents an opportunity for another major forward step in the historical process of trade liberalization which has already contributed so much to international prosperity and growth in the postwar period. The economic benefits of liberalization will be substantial and its costs extremely limited. The crucial question is whether the United States and the other industrial countries will move forward to take advantage of this opportunity for mutual economic benefit, or whether instead they will withdraw into a new phase of protectionism in response to the demands of special interest groups at home and in counterproductive attempts to deal in isolation with problems of international economic interdependence that require cooperative solutions among nations.

Representative LONG. Thank you, Mr. Cline. You have interjected into this an important political consideration—a domestic political consideration—inflation. We will come back to that.

I would like to explore that with you a little further after we have heard from our other two panelists.

Mr. Stern, would you proceed, please, in your own way.

STATEMENT OF ROBERT M. STERN, PROFESSOR OF ECONOMICS, UNIVERSITY OF MICHIGAN

Mr. STERN. Thank you very much, Congressman Long.

There are many important issues of international trade policy that are presently of great concern to the United States, the other major industrialized countries, and the developing countries. One such issue is trade liberalization, which is being addressed in the Tokyo round of multilateral trade negotiations that are now approaching their climax in Geneva.

In this regard, I have been involved, together with my colleagues at the University of Michigan, in analyzing the potential impacts of alternative strategies for reducing tariff and nontariff barriers to trade.

For this purpose, we have constructed a model of world production and trade, which is designed to assess in quantitative terms how production and employment would be affected in each of 29 sectors in the United States and 17 other major industrialized countries and how prices and the exchange rate would be affected in the individual countries. The model and some results are summarized in nontechnical terms in a paper that I have submitted separately for inclusion in the record.

When we consider tariff reductions alone, the main conclusion that emerges from our research is that even if very sizable tariff reductions are negotiated in the Tokyo round, there will be comparatively small impacts on the United States and the other industrialized countries.

For example, assuming that all products except agricultural products, textiles, and petroleum products are subjected to an across-the-board 50-percent reduction by the United States and other industrialized countries, we estimate based upon the data for 1970 that there would be a net decline in U.S. employment of around 12,600 workers. Considering that in 1970 total U.S. employment was 76.5 million, the employment effects of tariff reductions would be negligible.

Our results suggest further that consumer prices would fall slightly and there would be minimal effect on the dollar exchange rate. The results do not vary appreciably for other possible tariff reductions. The effects on the other industrialized countries are estimated to be similarly small. To elaborate a bit further, it should be noted that the employment effect just cited for the United States represents the net effect of expansion of output and employment in U.S. export and related industries and contraction in importing-competing and related industries. While the workers in the latter industries might well experience some unemployment in the short run, it could be eased by fairly small percentage rates of growth even in the most seriously affected industries.

We have also experimented, using our model, with changes in nontariff barriers. Unfortunately, because of difficulties in determining the price equivalents of nontariff barriers, we have not been able to carry out much analysis in detail. But one experiment with liberalizing

quotas on textiles and wearing apparel is interesting because it suggests that, by reducing the import price of textiles which are an input into the production of wearing apparel, this might cause the wearing apparel industry to expand. While this result would probably have to be qualified because we do not include the developing countries in the present version of our model, it nonetheless demonstrates the important effect that trade liberalization might have in reducing input costs in particular U.S. industries.

The research that I have just described is by no means the last word on the subject, in view especially of some technical limitations of our model and problems of data availability. Our results are nevertheless consistent with those obtained in studies carried out at the University of Wisconsin and the Brookings Institution, which are represented here today.

At this point, the committee might well wonder why, if the effects of trade liberalization are comparatively so small, there is so much concern with the outcome of the Tokyo round.

Representative LONG. Mr. Stern, if you would yield, that was the question that was running through my mind at the moment you said it.

Mr. STERN. The reasons why the effects appear small are that the ratio of trade to production is fairly small in many U.S. industries and that tariffs are already at comparatively low levels as the consequence of the Kennedy round and earlier rounds of multilateral tariff reductions under GATT. The small size of welfare gains from tariff removal perhaps typifies the marginal nature of many economic distortions that exist in the United States and in other advanced economies.

The point then is that even though the gains are small, it may nevertheless be worthwhile to attain them for the benefit of society as a whole. By the same token, it should be emphasized that nontariff barriers, which have to date remained largely outside the negotiating framework, may impose substantial costs on the United States and other countries that maintain them. There has been considerable discussion of the possibility of reducing nontariff barriers in the Tokyo round negotiations. But to date the accomplishments here seem problematical.

There are two important implications that follow from the foregoing remarks. First, it would appear that the negative effects of import competition per se on particular U.S. industries may often be exaggerated. Thus, for example, slackness in the U.S. economy as a whole or ineffectual management may be the primary or root causes of the difficulties that have been experienced in certain industries. If this is a correct interpretation, it suggests that the appropriate remedies are domestic rather than international.

The second implication is that the imposition and extension of nontariff barriers are detrimental to international trade generally and to developing countries in particular. While import quotas, voluntary export restraints, and orderly marketing arrangements may provide some protection to U.S. firms and workers, they are nevertheless very costly to the Nation as a whole and directly frustrating to the further industrialization of many developing countries. Here again the basic remedies must be sought in terms of changes in domestic policies in the United States and the other industrialized countries.

Thank you.

[The paper referred to in Mr. Stern's statement follows:]

THE IMPLICATIONS OF ALTERNATIVE TRADE STRATEGIES FOR THE UNITED STATES *

(By Alan V. Deardorff, Robert M. Stern, and Mark N. Greene)

I. INTRODUCTION

Trade policy consists of the use of various policy tools—such as tariffs, quotas, negotiated voluntary export restraints, etc.—to influence the volume of international trade in various industries. Since, in the advanced countries, such policies have usually been directed at restricting the volume of imports, we will accordingly confine our attention for the most part to such policies. Given that the effects of tariffs and other trade policies depend both on the level of their use by different countries and on the industries to which they are applied, our analysis will concentrate primarily on alternative trade strategies that differ either across countries or across industries.

Before beginning the more detailed analysis, it may be useful to discuss briefly the principal advantages and disadvantages of trade policies. Consider, then, the reduction of a tariff in a particular industry and country. The immediate effect is to lower the price paid by domestic importers of the good and thus to lead to an increase in the quantity of imports. These price and quantity changes are felt most quickly and strongly in the domestic industry that produces the previously protected good. But the effects are also spread over the entire economies of both the tariff-reducing country and its trading partners.

Certainly the most visible effects of a tariff reduction are the costs borne by those who derive their livelihood from production of the good at home. As the tariff and consequent price reduction cause demanders to switch from domestically-produced goods to imports, domestic producers find demand for their products curtailed. Both the owners of these firms and the workers that they employ then suffer loss of income as profits fall and workers are laid off. For those adversely affected, these income losses may be substantial, and, since they are visibly related to the tariff reduction, these costs are the most readily understood and appreciated by national policy makers and the general public.

The benefits of a tariff reduction are more diffuse. First, the fall in import prices lowers the cost of living for all consumers. The effect here cannot be large, for any one consumer, since it is limited by the portion of the consumer's budget spent in the affected industry, but it nonetheless constitutes a net gain for all of the many consumers whose source of income has not been directly reduced.

Second, if the product on which the tariff was reduced is used as an intermediate input into production in other industries, then the cost savings from cheaper imports will benefit both producers and consumers there as well. Again this benefit is spread over the entire economy. It may thus be very difficult to relate the benefit to the tariff reduction per se, but the benefit is nonetheless real and may be substantial.

Third and finally, one must today consider the effect that a tariff reduction will have on the country's exchange rate and what this, in turn, implies for domestic welfare. The rise in imports causes excess demand for the foreign currencies needed to purchase them, and this causes the exchange rate of the domestic currency to depreciate. While the currency depreciation may appear to be a cost, in fact it has the effect of stimulating demand for all domestic products. Whether they produce for export or for domestic use in competition with imports, all domestic producers gain a competitive edge over foreign competitors when the value of their currency falls.

So far we have considered the effects of the tariff reduction only in the tariff-reducing country. That there are also benefits abroad is more obvious and requires little discussion. The important thing is to remember these benefits when we contemplate multilateral tariff reductions. For then, the effects on a country of tariff reductions elsewhere may be just as important as the effects of its own reductions.

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*Prepared for the Panel on Trade and Planning, United Nations Association of the United States of America, University of Michigan, Aug. 1, 1977.

As we have seen, there is an important difference between the costs and benefits of a single tariff reduction in that the costs are concentrated within the affetced industry, while the benefits are diffused throughout the entire economy and abroad. There is, in addition, a second difference that should be noted, which concerns the evolution over time of these costs and benefits.

The costs of a tariff reduction are likely to be greatest initially and to disappear gradually over time. Workers who are laid off will eventually find jobs in other industries, though perhaps only after retraining and relocation. And owners of capital experience a once-and-for-all capital loss but can reinvest what is left for a competitive return. We do not mean to minimize the importance of these losses, which can be substantial for the individuals involved, but merely to point out how they are distributed over time.

The time distribution of the benefits from a tariff cut is quite different. Consumers gain immediately as they pay a lower cost for the goods that they were already importing. But the full extent of their gain is realized only over time as they are able to substitute between domestic and imported goods and as the economy's resources are reallocated from import-competing to other uses. Likewise, the benefits of reduced prices on imported intermediate inputs take time to be passed on to the consumer. Thus, while the costs arising from tariff reduction are likely to fall over time, the benefits are likely to rise.

With costs and benefits that differ so markedly in their visibility and dynamic incidence, it is no wonder that reasonable men have disagreed on the desirability of cutting tariffs. Economists have by and large been able to argue that the benefits outweigh the costs. The argument is basically that, taken as a whole, a country can only gain by acquiring goods from the least cost source. Thus, when policies are used to limit imports, their only effect is to tie up resources in the protected industry that would be better utilized elsewhere. Given the abstract nature of this argument, it is quite remarkable that many practical policy makers have apparently accepted it and that we now find ourselves involved in still another round of multilateral trade negotiations.

The decision, then, has already been reached to negotiate even further reductions in tariffs and, if possible, to reduce other trade barriers as well. The question is therefore not whether it will be done, but how and to what extent. For tariffs alone, there are many choices to be made. How far on average should tariffs be reduced? How should the average tariff reduction be distributed among countries? And how should it be distributed among industries? Should high tariffs be reduced the most, on the grounds that the benefits from doing so would be greatest, or should low tariffs be reduced the most on the grounds that the costs of doing so would be least? In theory, the world has the most to gain from complete removal of all trade barriers. But, in fact, only partial removal is likely to be possible, and partial removal can be accomplished in an infinite variety of ways.

To make an informed choice among alternative strategies, one needs, first, to have more quantitative information about their costs and benefits as they affect the separate sectors of the economy, and, second, to have a means of weighing these costs and benefits so as to reach a decision. Our paper is an attempt to contribute toward the first of these ingredients for a decision.

To do so, we make use of a computable general-equilibrium model of production and trade in and among the world's 18 major industrialized countries. The model can be solved for the effects of changes in quantitative restrictions on trade. The solution includes estimates of output, employment, and price changes in each of the countries, with production disaggregated into 29 industries. In addition, the model includes estimates of changes in exchange rates and consumer price indices. Thus, it yields information about all of the separate effects of tariff reduction that we described earlier.

We do not attempt to translate our results on output, employment, prices, and exchange rates into comparable dollar measures of costs and benefits. To do so would require more information than we have available about the welfare implications of most of these economic variables. The difficulties are most obvious with respect to employment, for the costs of unemployment must include not only the foregone output but also the financial and psychological hardship of the unemployed workers. Other problems are encountered if we try to measure the welfare implications of output, price, and exchange-rate changes. Thus we are unable to produce dollar estimates of the welfare effects of tariff reductions. Any conclusions regarding the overall desirability of alternative trade strategies must therefore be interpreted with caution—a caution which would be appropriate in

any case given the uneven distribution of costs and benefits across sectors of the economy that we discussed earlier.

It should be noted that, for some problems, the approach used here would not be optimal. Since our model is static, it does not provide information about the dynamic response to trade liberalization. Also, for this and other reasons, the model cannot be tested against actual experience with tariff reductions so as to assess its accuracy. These are admitted drawbacks, but it must be realized how complex the problem at hand actually is. In our description above of the effects of only a single tariff reduction, we came nowhere close to describing all of the complicated interactions that must be taken into account. Add to these the need to consider many tariff changes simultaneously and our desire for information about many separate industries, and the problem becomes far too large to be handled in a testable, dynamic, econometric model.

On the other hand, our model does incorporate a great deal of empirical information, giving us some confidence in its accuracy. Supply and demand functions are both based on published econometric studies of behavior, and other parameters of the model are derived from carefully gathered data on production, trade, and employment. All of this, together with our very detailed modelling of intercountry and interindustry interactions, convinces us that our results may well be more reliable, and are certainly more useful, than could have been obtained from a simpler and more highly aggregated model.

With this introduction, we now turn to the body of the paper. In Section II, we provide a brief and nontechnical description of the model and how it was used. In Sections III–V, we report and comment on a variety of results that we obtained for alternative tariff-change formulas. In Section VI, we consider the issue of quantitative restrictions on trade. Finally, in Section VII, we comment on the role of less developed countries in the system of world trade and how their exclusion from our model may have affected our results. Section VIII provides a summary of our results.

II. DESCRIPTION OF THE MODEL AND ITS USE

A more complete description of our model is given in Deardorff et al. (1976). For the present purpose, a brief overview should therefore suffice.

The model includes world markets for each of 22 tradable industries, with separate functions for the supply of exports into these markets and for the demand for imports out of these markets in each of 18 countries. In addition, the model includes separate "home" markets for each country and industry in these as well as an additional 7 nontradable industries. This division of the tradable industries into home and world markets reflects an assumption that home-produced and imported products are regarded by both producers and consumers as imperfect substitutes. All supply and demand functions are constructed to incorporate some substitution between home and imported goods, as well as a complete network of interindustry interactions taken from the U.S. input-output table.

The equations for equilibrium in all of these world and domestic markets can be solved simultaneously for equilibrium world and domestic prices. By adding equations for the exchange markets of each country, we can solve for the equilibrium exchange rates as well.

Tariffs enter the model in two ways. First, they cause the domestic price of imports to exceed the world price by the percent of the tariff. And second, all tariff revenue is assumed to be redistributed to consumers. This second assumption is used to neutralize the effect that tariff changes would otherwise have on the amount of aggregate expenditure that reaches producers.

Labor markets are not assumed to clear in the model. Wages instead are taken as constant and changes in demands for labor are assumed to change levels of sectoral unemployment. Thus, the model is able to generate the initial impact of tariff changes on labor-market disequilibrium.

Finally, we have not attempted to model the process of macroeconomic income determination. Rather than have our results be dominated by uncertain predictions of the response of macro policy makers to tariff changes, we have chosen to maintain aggregate expenditure at levels that will keep world economic activity approximately constant. Thus, our results reflect exclusively microeconomic considerations.

So far we have described the model as it appeared in Deardorff et al. (1976). For the present paper, we have modified that model to include quantitative trade restrictions and changes in those restrictions. The presence of import quotas, for

example, is modeled as breaking the relationship between domestic prices of imports and world prices that would normally arise from tariffs. Instead, we have domestic prices that adjust automatically to prevent imports from changing. For those industries in which quotas affect only a fraction of trade, that fraction is used to construct an average of the two hypothetical prices that would prevail with no quota at all and with a quota on the entire industry. The result is to make trade in quota-protected industries less responsive to changes in tariffs and other variables than it would have been had quotas not been considered.

The model covers the following 18 major industrialized countries, which are listed together with the abbreviations that will be used to refer to them in subsequent sections. The choice of countries was dictated by the availability from GATT (1974) of detailed trade and tariff information at the line-item level. We shall comment below in Section VII on the implications of having excluded the less developed countries from the model.

ALA—Australia
ATA—Austria
BLX—Belgium-Luxembourg
CND—Canada
DEN—Denmark
FIN—Finland
FR—France
GFR—West Germany
IRE—Ireland
IT—Italy
JPN—Japan
NL—Netherlands
NZ—New Zealand
NOR—Norway
SWD—Sweden
SWZ—Switzerland
UK—United Kingdom
US—United States

World industry was categorized into 29 classifications, of which 22 are tradable. They are identified by numbers adapted from the International Standard Industrial Classification (ISIC) and are described below:

Nontradables

ISIC group:	*Description*
2	Mining and quarrying.
4	Electricity, gas, and water.
5	Construction.
6	Wholesale and retail trade, restaurants and hotels.
7	Transport, storage and communication.
8	Finance, insurance, real estate, etc.
9	Community, social and personal services.

Tradables

ISIC group:	
1	Agriculture, hunting, forestry and fishing.
310	Food, beverages and tobacco.
321	Textiles.
322	Wearing apparel, excluding footwear.
323	Leather and leather and fur products.
324	Footwear.
331	Wood products, excluding furniture.
332	Furniture and fixtures, excluding metal.
341	Paper and paper products.
342	Printing and publishing.
35A	Industrial chemicals (351); other chemical products (352).
35B	Petroleum refineries (353); miscellaneous products of petroleum and coal (354).
355	Rubber products.
36A	Pottery, china and earthenware (361); other nonmetallic mineral products (369).
362	Glass and glass products.
371	Iron and steel basic industries.
372	Nonferrous metal basic industries.
381	Metal products, excluding machinery, etc.
382	Machinery, excluding electrical.
383	Electrical machinery, apparatus, etc.
384	Transport equipment.
38A	Plastic products, n.e.c. (356); professional, photographic goods, etc. (385); other manufacturing industries (390).

To give some idea of how the 18 countries interact with one another in the 22 tradable industries, we present a summary of the basic trade and trade policy data in Table 1. For each tradable industry, the first column gives U.S. net exports (exports minus imports) for 1970 with the total U.S. trade balance at the bottom.[1] Then, we report average nominal post-Kennedy Round (1972) tariff levels by industry for the U.S. and for the world as a whole (the 18 countries, including the U.S.). Average tariffs have been obtained by using 1970 levels of imports as weights. In this case, the bottom entries in the table are the import-weighted averages of the columns above, rather than their sums. Finally, in the last two column we report an index that we have constructed to indicate the importance of quantitative restrictions on trade. This index is intended to represent the percentage of trade within each industry and country that is subject to quantitative restrictions. Further details on its construction are given in the appendix below. Again, as with tariffs in the preceding columns, import-weighted averages were used to get the figures for the world and for all industries together.

Since our focus in this paper will be on the U.S., it is worth noting from Table 1 how the U.S. compares in its level of protection with the other industrialized countries. It appears that U.S. tariffs are, on average, lower than in the rest of the world. In fact, while it is not apparent from Table 1, there are only 2 of the 18 countries whose average tariffs are lower than those of the U.S. (Norway and Switzerland). And among 22 separate industries, there are only 6 in which the U.S. tariff exceeds the average for the world. As for quantitative restrictions, the U.S. is again slightly below average.

TABLE 1.—THE PATTERN OF U.S. TRADE AND PROTECTION COMPARED TO AN AVERAGE OF THE WORLD'S INDUSTRIALIZED COUNTRIES

ISIC industry	U.S. net exports, 1970 (millions)	Average post-Kennedy Round tariff (percent)		Index of post-Kennedy Round quantitative restrictions (percent)	
		United States	World	United States	World
1	$1,924.7	3.14	10.66	1.4	21.38
310	−791.2	7.40	16.78	45.4	28.08
321	−191.1	20.44	12.41	100.0	100.0
322	−423.4	26.32	18.74	100.0	100.0
323	−12.3	6.72	4.02	0	1.04
324	−444.9	10.08	11.62	0	16.12
331	159.7	1.95	2.94	0	0
332	−68.1	7.14	9.36	0	0
341	−852.9	.43	5.81	0	.53
342	203.5	.76	5.46	60.6	9.07
35A	1,661.7	6.34	10.12	0	4.52
35B	311.3	2.89	3.14	56.2	41.39
355	28.4	4.31	7.70	0	3.72
36A	−74.6	11.26	6.29	0	7.25
362	−5.0	12.95	10.77	0	0
371	−844.4	6.32	5.72	0	.23
372	−278.0	2.29	2.56	0	4.75
381	−70.6	8.79	9.02	0	2.74
382	2,943.1	4.97	7.13	0	2.68
383	179.6	7.23	9.63	0	5.03
384	1,300.4	3.51	7.81	1.8	12.20
38A	−232.6	8.47	8.86	.5	3.40
All	4,423.6	6.26	8.23	12.36	15.45

Note: The trade and tariff data were compiled from GATT (1974). The tariffs are post-Kennedy Round (1972), ad valorem equivalents and are import weighted, using 1970 trade. Details on construction of the index of quantitative restrictions are given in Appendix Table A-5.

[1] Detailed information on imports at the line-item level was available for 1970 and 1971 in GATT (1974). We used the 1970 data to correspond with our data on employment by industry for this year, which was the latest available at the time we assembled all the data for computational purposes.

Among industries, the most heavily protected are clearly food, beverages, and tobacco (ISIC 310), textiles (ISIC 321), and wearing apparel, excluding footwear (ISIC 322). Textiles and wearing apparel (321, 322) are specially notable in being subject to quantitative restrictions.[2] This means that the tariffs which are also present in these industries are essentially meaningless, since they merely tax the profits of those who control the limited allocation of imports but do not affect prices.

III. THE EFFECTS OF EQUIVALENT MULTILATERAL TARIFF CHANGES

We turn now to the analysis of results generated by our model. We begin by considering several formulas for tariff change in which all countries are treated identically. That is, a single formula for determining a tariff change is constructed based upon the level of the existing tariff. The formula is then applied to all countries at the same time. Thus, there is no attempt to discriminate among countries, except to the extent that their existing tariffs may make them unusually vulnerable to a particular tariff formula.

The simplest formulas (1–3) of this sort consist of changing all existing tariffs by the same percentage, independently of their initial size. More complicated formulas (4–6) make the percentage tariff cut dependent on the initial tariff. The individual formulas are as follows:[3]

Formula 1.—A 10-percent increase in all tariff rates.

Formula 2.—A 50-percent reduction in all tariff rates.

Formula 3.—A 100-percent reduction in all tariff rates.

Formula 4.—A "harmonization" formula consisting of three iterations of a tariff cut equal to the initial tariff.

Formula 5.—A "nonlinear" formula in which all tariffs below 5 percent are removed entirely, tariffs above 40 percent are cut to 20 percent, and all other tariffs are cut in half.

Formula 6.—A "linear with intercept" formula in which all tariffs are set equal to 3 percent plus 40 percent of their initial value (but with no tariff allowed to rise).

With the exception of formulas 1 and 3, which are included in order to determine the effect of changing the overall level of tariff reduction, all of these formulas are very similar in terms of their overall effects. In addition they all approximately represent actual tariff formulas that have been proposed by different participants in the current round of trade negotiations. They differ primarily in terms of their differential treatment of high, medium, and low initial tariffs.

Formulas 4 and 6 both cut high tariffs the most and low tariffs the least, with the difference being most pronounced for formula 4. Formula 5, on the other hand, requires large cuts of both very high and very low tariffs, and has its smallest effect on tariffs in the middle range (5 to 40 percent). In addition, the tariff reductions implied by formula 5 are all at least as large as for formula 2, so that the average tariff reduction under formula 5 is likely to be somewhat greater than under the others.

In principle, each of these tariff formulas is intended to apply to all industries as well as to all countries. In fact, there are certain industries that are likely to be excluded from tariff cuts in the current negotiations. We therefore assume in all of our calculations in this paper that—regardless of the formula applied—tariffs in these industries are unchanged. These industries are: agriculture, etc. (ISIC 1); food, beverages, and tobacco (ISIC 310); textiles (ISIC 321); wearing apparel (ISIC 322); and petroleum products (ISIC 35B). In section V, we will take a further look at two of these industries, textiles and wearing apparel, to determine the effect of their being excluded.

The results of these six tariff formulas are summarized in Tables 2, 3, and 4. Table 2 reports effects on employment, first in man years, then in percentages. Table 3 reports price effects for both the U.S. and the world (all 18 countries). And Table 4 reports exchange-rate effects.

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[2] As noted in Table A5 below, we set the coverage of quantitative restrictions for these industries at 100 percent in the absence of more detailed information.

[3] Our choice of formulas has been influenced in part by the work of Cline et al. (1975, 1976).

TABLE 2.—SUMMARY OF EMPLOYMENT EFFECTS OF ALTERNATIVE TARIFF-CHANGE FORMULAS

	10 percent up	50 percent down	100 percent down	Harmonization	Nonlinear	Linear with intercept
	(1)	(2)	(3)	(4)	(5)	(6)
Absolute change in man-years:						
All United States	2,509	−12,550	−25,099	−3,226	−21,158	−1,044
	JPN	UK	UK	UK	UK	BLX
Maximum country	8,438	28,339	56,677	8,373	42,709	5,166
	UK	JPN	JPN	ALA	US	JPN
Minimum country	−5,668	−42,190	−84,380	−26,680	−21,158	−27,781
	ISIC 9	ISIC 5	ISIC 5	ISIC 5	ISIC 382	ISIC 5
Maximum U.S. industry	2,603	7,239	14,478	3,948	3,328	5,179
	ISIC 5	ISIC 9	ISIC 9	ISIC 9	ISIC 9	ISIC 9
Minimum U.S. industry	−1,448	−13,017	−26,033	−4,390	−12,283	−3,307
Percentage changes:						
All United States	0.003	−0.016	−0.033	−0.004	−0.028	−0.001
	IRE	BLX	BLX	BLX	BLX	BLX
Maximum country	0.106	0.465	0.930	0.151	0.390	0.138
	BLX	IRE	IRE	NZ	CND	ALA
Minimum country	−0.093	−0.531	−1.062	−0.582	−0.212	−0.481
Maximum U.S. industry (ISIC)	358	382	382	384	323	35A
	0.317	0.348	0.696	0.212	0.405	0.256
Minimum U.S. industry (ISIC)	382	35B	35B	35B	355	35B
	−0.070	−1.587	−3.173	−0.977	−0.384	−1.035

TABLE 3.—SUMMARY OF PERCENTAGE PRICE EFFECTS OF ALTERNATIVE TARIFF-CHANGE FORMULAS

	Formula					
	10 percent up	50 percent down	100 percent down	Harmonization	Nonlinear	Linear wth intercept
	(1)	(2)	(3)	(4)	(5)	(6)
Export prices:						
United States	0.052	0.259	−0.519	−0.107	−0.068	−0.110
World	.008	−.044	−.088	−.015	−.030	−.013
Import prices:						
United States	.278	−1.388	−2.777	−.737	−.262	−.860
World	.256	−1.281	−2.562	−.573	−.494	−.578
Consumer prices:						
United States	.009	−.044	−.088	−.015	−.030	−.013
World	.034	−.168	−.337	−.082	−.049	−.064

TABLE 4.—PERCENTAGE EXCHANGE-RATE EFFECTS OF ALTERNATIVE TARIFF-CHANGE FORMULAS

Country	Formula					
	10 percent up	50 percent down	100 percent down	Harmonization	Nonlinear	Linear with intercept
	(1)	(2)	(3)	(4)	(5)	(6)
ALA	0.317	−1.535	−3.171	−1.710	−0.186	−1.575
ATA	.131	−.513	−1.035	−.451	.018	−.508
BLX	−.031	.457	.915	.185	.143	.191
CND	.035	−.173	−.315	−.157	.142	−.195
DEN	.017	−.235	−.471	−.032	−.061	−.075
FIN	.023	−.014	−.023	−.020	.031	−.014
FR	.057	−.334	−.657	−.134	−.013	−.155
GFR	−.024	.118	.237	.016	.032	.012
IRE	.010	−.018	−.035	−.043	−.036	−.034
IT	.036	−.032	−.061	.013	−.013	.029
JPN	−.053	.233	.575	.210	.161	.141
NL	−.026	.131	.262	.051	.020	.051
NZ	.127	−.635	−1.272	−.557	−.018	−.568
NOR	−.033	.047	.034	.012	.011	.018
SWD	−.333	.193	.337	.113	.035	.132
SWZ	−.059	.317	.634	.242	−.171	.304
UK	.003	−.015	−.031	.064	.006	.058
US	−.010	.013	.035	.133	−.207	.173

The first thing to notice in all of these results is that they are not very large. With only a few exceptions, none of the changes is more than a fraction of a percent, and even the exceptions never much exceed 3 percent. Thus, whatever the costs and benefits may be from tariff reduction, neither is likely to be very large.

We had intended, before looking at these results, to report also the amount of time that would be required for the economy to reabsorb workers who had been laid off due to the tariff changes. However, as we look at the bottom part of Table 2, it is clear that even a mere 1 percent annual rate of growth of each industry would be sufficient to reabsorb most of the unemployed workers back into their original industries within a year. And, with a 3 percent rate of growth, this would be true in even the most seriously affected industries.

Variation among the six formulas is also comparatively minor except of course that all results are reversed in sign when tariffs go up, as in formula 1, instead of down. Otherwise, the results tend to be of the same general order of magnitude, regardless of the formula used.

The minor variations that do appear among the formulas seem to follow a pattern. From the point of view of the U.S., formulas 4 and 6 generate the smallest employment reductions. Similarly, the U.S. dollar appreciates the most with formulas 4 and 6. On the other hand, the benefit in the form of reduced consumer prices is smallest for the U.S. with these same formulas.

The reason for these results is of course that formulas 4 and 6 cut low tariffs the least and, as we have already noted, U.S. tariffs are already comparatively low. In contrast, New Zealand and Australia, both of whose tariffs are quite high, become the greatest losers of employment only when formulas 4 and 6 are applied.

We have reported here only a summary of the results for the six formulas. For the employment results, since space does not permit reporting the detailed results for all industries, we have included the maximum and minimum countries and U.S. industries affected in order to show the range of the results. Those who wish to see more detailed results on employment and other variables may consult Appendix B, where more complete results of the effects of formula 2 are reported. Formula 2—the 50 percent tariff cut—is also used as the basis for comparison in the next two sections.

IV. THE EFFECTS OF VARYING THE EXTENT OF U.S. PARTICIPATION IN TRADE LIBERALIZATION

In the previous section, we noted that the U.S. can benefit somewhat from the multilateral application of a tariff formula that impinges most severely on high tariff countries. The reason was that the average tariff reduction in the U.S. would then be smaller than in other countries. This seems to lend support to the idea that any country will benefit most if it can exclude itself from a general round of tariff reductions by other countries. To examine this proposition in more detail, we used our model to calculate the effects of three more tariff formulas in which the extent of U.S. participation in trade liberalization was varied. As we shall see, whether or not the U.S. can be said to gain or lose from unilaterally excluding itself from a round of tariff reductions elsewhere depends upon the weights one gives to the costs and benefits discussed in the introduction.

The additional formulas which we consider here are the following:

Formula 7.—10 percent increase in all U.S. tariffs; 50 percent reduction in all tariffs of all other countries.

Formula 8.—No change in U.S. tariffs; 50 percent reduction in all tariffs of all other countries.

Formula 9.—100 percent reduction in all U.S. tariffs; 50 percent reduction in all tariffs of all other countries.

As before, we exclude industries 1, 310, 321, 322, and 35B from tariff changes in all countries.

The results for each of these formulas are summarized in Table 5, together with results for formula 2 with which they are readily compared. As we move to the right in the table, we have U.S. tariffs being made lower and lower, until they are completely eliminated in the far-right column.

TABLE 5.—THE SENSITIVITY OF U.S. VARIABLES TO UNILATERAL VARIATIONS IN U.S. TARIFFS

	U.S. across-the-board tariff change—			
	+10 percent (Form. 7)	0 (Form. 8)	−50 percent (Form. 2)	−100 percent (Form. 9)
Percent change in U.S. total employment	0.002	−0.001	−0.016	−0.031
Maximum U.S. industry (ISIC)	35A	35A	382	382
Percent employment change	0.328	0.329	0.348	0.698
Minimum U.S. industry (ISIC)	35B	35B	35B	35B
Percent employment change	−2.373	−2.242	−1.5887	−0.931
Percent change in U.S. consumer price	0.010	0	−0.044	−0.089
Maximum U.S. industry (ISIC)	384	384	6	6
Percent home price change	0.032	0.019	−0.023	−0.046
Minimum U.S. industry (ISIC)	372	323	324	324
Percent price change	0.044	−0.005	−0.085	−0.166
Percent change in U.S. exchange rate	0.655	0.554	0.048	−0.458

As might be expected, overall employment in the U.S. falls more the more the U.S. tariffs are reduced and actually rises if U.S. tariffs are increased. However, even with complete removal of U.S. tariffs, the fall in total employment is a tiny three hundredths of one per cent.

If we look at the industry detail of employment effects, however, we find a surprise. The most adversely affected industry (ISIC 35B) actually suffers a smaller loss of employment when U.S. tariffs are reduced than when they are not. Similarly the industries that expand the most do so by a greater percentage when U.S. tariffs are reduced than when they are raised. Now obviously it is not possible for all industries to expand with greater U.S. tariff reductions and still have the aggregate effect be negative. To see what was happening, we looked at the detailed industry results that space presents us from reporting here. We found that the pattern reported in Table 5 for industry 35B is also observed in 16 of the 22 tradable industries. On the other hand, all but one of the nontradable industries were hurt by larger U.S. tariff reductions. The reason is apparently that U.S. tariff reductions cause U.S. consumers to substitute away from nontradables toward tradables as the latter become less expensive.

Turning now to the benefits from tariff reductions, we find that consumer prices fall more the greater are the U.S. tariff reductions. This is not surprising since tariff reductions cause import prices to fall. Note, however, in the next two lines of the table that the prices of home-produced goods also fall more as tariffs

are reduced. Thus, the benefits to consumers from reduced prices are not confined to the goods they happen to import.

Together, these results again suggest the problem noted earlier of weighing the costs and benefits of tariff reduction. Broadly speaking, those who derive their livelihoods from tradable industries tend to gain income while those dependent on nontradable industries tend to lose income. At the same time, both groups share the benefit of reduced consumer prices. Now it can be argued that the latter effect is enough to tilt the scale in favor of a net benefit for society as a whole, and that the U.S. should therefore take the lead in reducing its own tariffs as far as possible. But the question remains whether the losers in this process should be adequately compensated. If so, the process of compensation is likely to be difficult, since our analysis suggests that the bulk of the losers will not be located in the import-competing industries, but in those vast industries which deal in nontradables.

V. ANALYSIS OF SELECTED INDUSTRIES

So far, we have reported results for specific industries only when they were identified by the solution of the model as experiencing extreme responses to the tariff changes being considered. In this section, we report the results for several industries in more detail.

Table 6 contains the percentage output changes that we calculated for each of the 9 tariff formulas considered so far, for the selected industries. Since the main differences within the tables are between the first two columns and the last four, we will comment on these two groups of industries in turn.

Textiles and Apparel

Textiles (ISIC 321) and Wearing Apparel (ISIC 322) were selected because they were excluded from the tariff reductions in our calculations. Nonetheless, we see from Table 6 that the tariff reductions elsewhere caused these industries to contract. This result would probably come as a surprise to workers and manufacturers in those industries, who surely feel the "protection" afforded them by tariffs to be desirable.

In fact, what is happening is that by exempting an industry from multilateral tariff reductions, that industry is denied the benefits of the consumer substitution toward tradable goods that we mentioned earlier. Instead this substitution acts against it, just as if it were a nontraded good. While not included in Table 6, the other excluded industries display the same pattern, as can be seen for formula 2 in the appendix. In the case of the textile industries, this effect is even stronger due to the presence of quantitative restrictions on trade. While these do not exclude imports entirely, they do make trade so unresponsive to price changes that the industries behave more like nontradables than tradables.

TABLE 6.—PERCENTAGE OUTPUT CHANGES IN SELECTED U.S. INDUSTRIES FOR ALTERNATIVE CHANGE FORMULAS

	Industry					
	321 Textiles	322 Apparel	324 Footwear	371 Iron and Steel	383 Electrical	384 Transpor
Multilateral changes:						
10 percent up	0.013	0.023	−0.044	0.003	0.027	−0.052
50 percent down	−.065	−.113	.219	−.015	.136	.262
100 percent down	−.129	−.226	.439	−.030	.271	.523
Harmonization	−.065	−.039	.021	−.037	.072	.161
Nonlinear	−.017	−.131	.022	.111	.068	−.021
Linear intercept	−.077	−.029	−.093	−.059	.075	.176
Unilateral changes by United States:						
10 percent up	−.178	−.035	.069	−.124	.081	.166
No change	−.159	−.048	.094	−.106	.090	.182
100 percent down	.030	−.178	.345	.077	.181	.341

There is a difference between the results for industries 321 and 322 in Table 6 that should be noted, even though we cannot fully account for it. When unilateral variations in U.S. tariffs are considered in formulas 7, 8, and 9, we see that wearing apparel is hurt, but textiles are helped the greater is the U.S. tariff reduction. Since both industries are excluded from these reductions, we would have expected both to be hurt, as though they were nontradable

Our only explanation for this result is that textiles are primarily an intermediate product and that they may be benefitting from expansion of the industries in which they are used. However, since the principal textile-using industry is wearing apparel, this explanation is less than satisfactory.

Footwear, Iron and Steel, Electrical, and Transport

Footwear (ISIC 324) was selected for study because of the recent pressure on the U.S. government to increase its level of protection. Electrical machinery, apparatus, etc. (ISIC 383), which of course includes televisions, was selected for the same reason. Iron and steel basic industries (ISIC 371) and transport equipment (ISIC 384), on the other hand, were selected because of their importance as producer goods and as consumer goods, respectively.

But in spite of these differences and the fact that all of these four industries are noticeably wary of competition from abroad, all but one respond similarly to most of the tariff-reduction formulas by increasing their outputs. The exception is iron and steel (ISIC 371) which contracts under all but one of the tariff-reduction formulas. The explanation for these results is easily found in the data of Table 1. There we see that iron and steel is the only one of these four industries in which the initial U.S. tariff is greater than the world average. Thus, it appears that a primary determinant of an industry's vulnerability to multilateral tariff reductions is whether its own tariff is greater or smaller than the world average.

Variation of Industry Tariffs

We have noted that tariff reductions tend to cause consumer substitution towards the affected industries and away from both nontraded industries and those traded industries which were exempted from the tariff reduction. As a check on this result, we have experimented with variations in the tariffs on the second group of selected industries considered above. For each of those four industries, we first tried setting their tariff changes equal to zero in all countries, then tried complete removal of their tariffs in all countries, and finally tried exempting only the U.S. industry from tariff reduction. In each case all other tariffs were reduced by 50 percent as in formula 2.

The results are reported in Table 7, including percentage output changes both for the selected industries as a whole and for their home and export sectors. In three of the four industries (all except footwear) the pattern inferred earlier is reaffirmed; each expands more, the more tariffs are reduced multilaterally in the industry. The sectoral results indicate, however, that it is the export sector which expands while the home sector, in most cases, contracts. This distinction is important, of course, since the costs of shifting from home to export production are not likely to be borne equally by all firms within an industry.

TABLE 7.—PERCENTAGE OUTPUT CHANGES IN SELECTED U.S. INDUSTRIES WITH ALTERNATIVE CHANGES IN TARIFF OF SELECTED INDUSTRY

Tariff change in selected industry	324 footwear	371 iron and steel	383 electrical	384 transport
0 in all countries:				
Total	0.888	−0.056	0.016	0.039
Home	.896	−.006	.034	.045
Export	−2.28	−1.50	−.482	−.201
−50 percent in all countries:				
Total	.219	−.015	.136	.262
Home	.204	−.084	−.025	.023
Export	7.06	2.00	4.55	3.90
−100 percent in all countries:				
Total	−.450	.026	.256	.493
Home	−.487	−.162	−.083	.000
Export	16.41	5.51	9.58	8.00
0 in United States, 50 percent other:				
Total	.964	−0.14	.187	.328
Home	.960	−0.084	.065	.141
Export	2.87	2.00	3.57	3.18

An exception to the pattern was found for the footwear industry (ISIC 324) which loses (in the U.S.) from multilateral tariff reductions on footwear imports. The reason for this result seems to be the unusually small size of the export sector in the U.S. footwear industry. This prevents it from participating in the worldwide expansion of demand for footwear that tariff reductions imply.

Finally, the last lines of the table report the effects of unilaterally excluding the U.S. from tariff reductions in the selected industries. Here, as one could expect, most of the industries benefit from having tariffs on their products reduced elsewhere but not at home.

VI. THE ROLE OF NONTARIFF BARRIERS

It should be evident that we have confined our attention thus far only to the effects of tariff reductions. There are numerous nontariff barriers (NTB's) that impede trade in various industries that must also be taken into consideration. These include quantitative restrictions on imports, voluntary export restraints ("orderly marketing" arrangements), government procurement practices, customs regulations, health and safety requirements, and numerous other barriers that are too detailed to be documented here.

While these various NTB's are obviously important, they are unfortunately very difficult to analyze. The problem is one of translating them into their tariff equivalents, or otherwise estimating the extent to which they may restrict imports. For want of anything better, we have used the data on NTB's compiled by Murray and Walter (1977), based upon the coverage of trade that was subjected to NTB's in individual countries in 1973. These data by no means measure the restrictiveness of NTB's, but they nevertheless provide some indication of the degree to which imports in particular industry categories and countries are affected by NTB's.

The detailed results are given in Table A5. As Murray and Walter (1977, p. 18) note:

> Apart from the textiles sector, . . . , U.S. quantitative restrictions at present cover imported meat, specialty steel, petroleum products, printed books and periodicals, aircraft, ships and boats, dairy products, oil seeds and fruits, margarine and other edible fats, sugar, chocolate and other food products containing cocoa, certain preparations of flour and starch containing cocoa, sweetened forages and certain other food preparations. Imports of wild bird feathers are controlled, as are narcotics and firearms.

We would have to add to the foregoing list the recently imposed voluntary restraints on imports into the U.S. of shoes and television sets. These restraints are not reflected in the data in Table A5.[4]

It may be of interest to compare the NTB coverage data for the U.S. with the other major industrialized countries. Thus, as Murray and Walter (1977, p. 19) have noted, it appears that France, Italy, Japan, Norway, the Benelux countries, and Switzerland maintain fairly extensive NTB's on industrial products, in particular footwear, ceramic tableware, cutlery, and tools. For agricultural products, besides the European Community's rather restrictive variable levy scheme, Austria, Canada, France, Japan, Norway, and Switzerland impose NTB's on many items.

We have already seen how the presence of nontariff barriers can affect the outcome of tariff reductions. That is, by limiting the response of imports to price changes, they cause the protected industry to behave more as though it were nontraded than traded. It remains to consider what effects changes in the nontariff barriers themselves may have.

To determine this, we ran two more experiments with our model, increasing the quotas on the textile and wearing apparel industries (ISIC 321 and 322). The increases were assumed first for the U.S. alone, then for all countries. The results are summarized in Table 8.

The effects on the textile industry are similar to what we have found before for tariff reductions. The U.S. textile industry contracts if the quota increase is done unilaterally by the U.S., but expands when all countries raise quotas. The expansion in the latter case is however confined to the export sector.

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[4] Murray and Walter (1977, pp. 11–13) have summarized the evidence on the costs of NTB's to the U.S. On an aggregate level, it has been estimated, based on 1971 data, that the annual efficiency losses to the U.S. from NTB's was about $3.6 billion, or about 0.44 percent of national income. In terms of trade coverage, for 1972, about $100 billion of domestic consumption was estimated to be subject to NTB's on imports (including petroleum, which may have inflated the estimate). Estimates of costs of NTB's have also been made for specific industries and sectors. For example, these ran about 20–25 percent of total U.S. domestic expenditure on raw sugar in 1970, and about 10 percent of total expenditure on cotton and noncotton textiles in 1972. Estimates for more recent years are also cited for textiles, meat, and steel. While all of the available estimates are no doubt subject to criticism on various methodological grounds, there is nevertheless good reason to believe that many NTB's have been and will continue to be rather costly to U.S. consumers.

TABLE 8.—THE EFFECTS OF A 10-PERCENT INCREASE IN TEXTILE AND APPAREL QUOTAS IN UNITED STATES ONLY AND IN ALL COUNTRIES

	Quota increase in—	
	United States only	All countries
		[1]
Percent change in U.S. total employment	0.0007	0.01
Percent in U.S. textile employment	−0.021	0.304
Absolute change in U.S. textile employment (man-years):		
Home	−867	−830
Export	635	4,214
Percent change in U.S. apparel employment	1.40	1.44
Absolute change in U.S. apparel employment (man-years):		
Home	16,055	16,080
Export	261	758
Percent in U.S. consumer prices	−0.011	−0.012
Percent change in U.S. prices of textiles:		
Home	−0.012	−0.012
Import	−8.785	−8.785
Percent change in U.S. prices of apparel:		
Home	−0.020	−0.020
Import	−2.569	−2.569
Percent change in U.S. exchange rate	−0.080	−0.095

The results of the apparel industry, however, are surprising. Here there is expansion in both cases and in both the home and export sectors. The reason turns out to be the heavy dependence of that industry on textiles as an input and the extreme reduction in import prices that the quota increase there permits. While this result is surely not representative of what would happen to most industries if their nontariff barriers were relaxed, it does point up the importance of allowing for interindustry interactions as we do in our model.

We have seen that the effects of changing quotas can be very similar to the effects of changing tariffs. However, this does not mean that the effects of maintaining constant levels of tariffs and quotas are the same when other things are changing. There is an important difference. When quantities demanded or supplied change, a tariff permits some adjustment to that change through imports. A quota does not. When a quota is present, such adjustment must be accomplished entirely through prices. Tariffs are therefore a much more flexible instrument than quotas.

VII. THE ROLE OF LESS DEVELOPED COUNTRIES IN U.S. TRADE

Data limitations have prevented us from incorporating the less developed countries (LDC's) into our model. In this section, we will attempt to assess the importance of this omission.

Two factors should be considered in evaluating the importance of omitting countries from our model. The first is simply the amount of trade accounted for by the omitted countries and the second is the price responsiveness of that trade. For it is only the changes in rest-of-world trade that occur when tariffs are reduced that matter for our results. These changes would necessarily be small if the volume of trade itself were minimal, but they could also be small for a large volume of omitted trade if that trade were relatively unresponsive to price variations. We shall consider each of these points in turn.

To give some idea of the volume of omitted trade and its possible importance for the United States, we report U.S. exports and imports by region, for 1975, in Table 9. The source of these data was not the same as was used elsewhere in the paper, and the industry and country classifications are accordingly not exactly comparable. Still the column labeled Industrial Areas closely approximates U.S. trade with the 18 countries included in our model. It is clear from this column that we have accounted in our model for well over half of U.S. trade in all industries except for imports of primary products, textiles, and clothing, and exports of iron and steel. Nonetheless, the quantity of trade with LDC's is fairly sizable in all but a few industries.

Even in quantitative terms, however, this result can be misleading, since it reflects only U.S. trade. Since the U.S. competes on world markets with all other countries, a better measure of the omitted trade would have been that of all 18 countries together. This was not available on a disaggregated basis, but we can

report the results for total trade. Of the total exports of the industrial areas, 70 percent was to the 18 countries included in our model. The analogous figure for imports was 69 percent. Comparing to the last row of Table 9, it is clear that U.S. trade with LDC's is disproportionately large. Thus, the data in Table 9 for the U.S. alone tend to overstate the importance of the trade that was omitted from our model.

We turn now to the issue of the price sensitivity of the omitted trade. In our model, prices are determined so as to leave the balance between world supply and demand unchanged in each industry. Were we to add to the model additional trade with countries that are currently excluded, the estimates of equilibrium price changes would be altered only to the extent the additional net trade is responsive to changes in world prices.

TABLE 9.—PERCENTAGE OF U.S. TRADE WITH SELECTED REGIONS OF THE WORLD (1975)

Industry	Industrial areas[1]	Eastern trading area	Developing areas
Primary products:			
Imports	30.6	1.0	68.4
Exports	62.9	6.1	31.0
Nonferrous metals:			
Imports	67.8	4.7	27.1
Exports	75.6	3.8	21.4
Iron and steel:			
Imports	93.0	.6	6.4
Exports	37.4	1.2	61.4
Chemicals:			
Imports	86.8	1.1	11.9
Exports	56.0	1.0	42.9
Engineering products:			
Imports	80.6	.4	19.0
Exports	57.0	2.4	40.6
Road motor vehicles:			
Imports	98.9	.1	.9
Exports	70.7	.4	28.9
Textiles and clothing:			
Imports	32.0	1.9	66.4
Exports	65.5	.5	33.5
Other manufacturers:			
Imports	73.7	1.0	25.4
Exports	72.3	.9	26.7
Total:			
Imports	58.6	.9	40.5
Exports	61.3	3.0	35.7

[1] Includes the 18 countries used in this study plus South Africa.

Source: General Agreement on Tariffs and Trade, International Trade 1975–76, Geneva, 1976.

Now consider the nature of the omitted trade as indicated by Table 9. First, a portion, admittedly small, of that trade is with the centrally planned economies of the eastern trading area. Since this trade is negotiated by state traders in whose own economies market prices play only a minor role, it seems unlikely that such trade is very price elastic. Indeed the same argument may be applied to the much larger volume of trade with the LDC's. These countries are notorious for their government intervention in export and import markets, either directly via export and import licenses or indirectly through exchange controls and other means. Thus, there may be limited scope for competitive supply and demand responses within these economies to be felt on world markets, particularly in the short-run period encompassed by our model.

Finally, if we look at the particular industries for which the quantitative importance of LDC trade is greatest in Table 9, we see that there are reasons for these industries to be even less price responsive than normal, at least in the short run. In primary products, for example, short run supply depends more on current weather conditions and on the pattern of historical resource exploitation than on current prices. In textiles and clothing, on the other hand, supply is presumably much more price elastic. But here, as we have seen, the demand for imports on the part of the developed countries is severely constrained by quantitative restrictions.

For all of these reasons, then, we are inclined to regard the omitted trade with DDC's as comparatively unimportant for our results.

VIII. CONCLUSION

In the earlier sections of the paper, we analyzed the effects of a wide variety of tariff-cutting formulas. Of these, only four (numbers 2, 4, 5, and 6 of Section III) represent plausible outcomes of the current round of trade negotiations. All other formulas were included in order to highlight the effects of varying the extent of trade liberalization in particular countries, particular industries, and for the world as a whole. Two experiments were also performed in Section VI with changes in quotas, though we found no notable differences between quota changes and tariff changes. Finally, while all of our results are somewhat inaccurate due to the omission of less developed countries from the model, we were able to argue from data on trade with the LDC's that these inaccuracies are unlikely to be very large, at least for most industries.

Several conclusions of a general nature emerge from our analysis. First, we have seen that multilateral tariff reductions reduce prices in all countries. The greatest reductions are in the prices of imports themselves, but the effect extends as well to the prices of exports and to consumer prices generally (see Table 3). In addition, the price declines in any particular country tend to be greater, the larger are the tariff reductions in that country. This was noted in Table 3 in comparing the effects on U.S. consumer prices of formulas 4 and 6 versus the others and is also evident in Table 5.

Second, we have seen that the employment and output effects of tariff reductions are distributed quite unequally across sectors of the economies involved. There is some tendency for particular industries to be harmed by tariff reductions if their own tariffs are initially high compared both to other countries and to other industries. However, in general, the own tariff of an industry in a given country is less important than whether the tariffs elsewhere in that industry are reduced. Thus we have seen that multilateral tariff reductions tend to cause expansion in most industries that share in the reduction. This expansion is at the expense of nontradable industries as well as of any tradable industries which are exempted from the reductions.

Third, the expansion of (nonexempted) tradable industries is accomplished by means of a considerable alternation of production within these industries. With some exemptions, the export sectors of these industries expand substantially while the sectors producing for the home market contract. This shifting of production within the industry may impose additional costs of adjustment, particularly if labor cannot easily move between the home and export sectors.

Finally, we have computed the effects on exchange rates that arise under the alternative strategies. As one would expect, a country's currency rises less or falls more in value the greater are its own tariff reductions compared to the rest of the world. The welfare implications of exchange rate changes are unclear, however, since a devaluation on the one hand stimulates most sectors of the economy, but on the other hand raises prices and is viewed politically as a sign of failure.

Together, these conclusions indicate that any trade strategy that might be chosen will result in benefits to some parts of the population and costs to others. No trade strategy is possible that will, by itself, make everyone better off. Instead one must try to balance the interests of producers (including labor) in tradable industries against those of producers in nontradable industries and in industries that are to be excluded from world-wide trade liberalization. The first group is likely to gain from tariff reductions both by receiving higher incomes and by paying lower prices. The second group is likely to lose by suffering loss of income in excess of the price reduction.

For the United States this trade-off is apparent in the comparison of the more realistic of the tariff-reduction formulas we have studied (formulas 2, 4, 5, and 6 of Section III). Because U.S. tariffs are low compared to the rest of the world, formulas 4 and 6, which reduce high tariffs the most and low tariffs the least, lead to comparatively small tariff reductions in the U.S. This in turn means that the benefits to consumers are minimized (i.e., the fall in consumer prices is small) but that producers in nontradable and exempted industries lose less than they would with the other formulas. Furthermore the effect on producers in tradable industries is unclear. The small U.S. tariff reductions under formulas 4 and 6 limit the extent of substitution by U.S. consumers towards these industries, but, on the other hand, the larger tariff reductions

abroad stimulate these industries. All in all, then, it would seem that tariff reduction formulas such as 4 and 6 might be the most desirable from the U.S. point of view.

Finally, we should note again that, whatever formula is applied, none of the effects is likely to be very large. Even 100 percent tariff removal was seen to have very small percentage effects on output, employment, and prices in most countries and industries. Thus, it may not be of crucial importance that we succeed in calculating exactly all of the costs and benefits of alternative trade strategies, for the difference between the optimal strategy and other nonoptimal strategies is probably not very large. The importance of our analysis here, then, is not that it enables us to pick out the optimal trade strategy. Rather, it is useful in directing our attention to particular sectors of the economy that will be hurt the most by whatever strategy is chosen.

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Appendix A: Data

The five tables of this appendix contain the complete data, by industry and country, on production, net trade, employment, tariffs, and quantitative trade restrictions that were used in this paper. The figures may serve to put particular results of our model into perspective.

Table A1 shows the value of domestic production in each ISIC industry category together with row and column sums. Figures are in millions of U.S. dollars and were derived from the United Nations, "The Growth of World Industry" (1974) and OECD publications on national accounts.

Table A2 presents net export statistics for each industry-country cell. Figures are in millions of U.S. dollars and were computed from GATT magnetic tapes pertaining to "The Basic Documentation for the Tariff Study" (1974).

Table A3 gives employment statistics for each industry-country cell. Figures are thousands of man-years, and were taken from the United Nations source noted above.

Table A4 presents post-Kennedy Round (1972) nominal tariffs expressed in percentage form. The underlying data came from the GATT study cited above, and the aggregation process used is detailed in Deardorff et al. (1976).

Table A5 presents an index of the degree to which 1973 imports were subject to quantitative restrictions (quotas, etc.). A value of unity indicates 100% restriction; zero denotes no restriction. The construction of this index is described fully in a note immediately following the table.

Both Tables A4 and A5 are accompanied by country and industry averages that were computed using 1970 imports as weighting factors.

TABLE A1: PRODUCTION

	2	4	5	6	7	8	9	1	310	321
AUL	1943.29736	2358.71347	6306.52344	6115.72656	4216.61453	7010.51563	4101.67969	5948.07813	4978.25781	1128.31081
AUT	271.676270	858.961426	2936.80615	3073.82593	1398.84165	1834.46973	857.973703	2613.36450	1438.45483	713.292235
BLX	472.620361	1017.83281	4208.89844	4893.01563	2987.61182	4825.69922	2967.43845	2554.77856	2211.95679	1221.61841
CND	5746.91797	4325.57813	10517.6641	13027.7539	9720.45313	13917.0000	9928.51172	8287.11328	10268.2383	2183.51050
DEN	9.38841439	563.627441	3265.02905	3187.93286	2235.81717	2193.26196	405.839322	3041.57397	2343.03662	312.591797
FIN	163.778900	522.742920	2007.01025	1423.45034	993.374023	1257.13965	530.133127	1395.04199	1771.29199	333.492676
FR	2373.15796	5672.37891	32777.1211	22947.9297	11242.9477	13522.8047	26054.3008	23547.5703	12593.9399	6431.15625
GER	5173.41797	9126.15625	38725.3320	36817.7813	16145.3531	20353.7227	18759.3086	15420.1016	18475.0750	6688.59375
IRE	79.7143052	175.516460	390.529053	479.004150	437.759789	456.777344	371.949242	1452.85767	1194.35132	239.348999
IT	1110.74873	4309.93234	16049.5459	16335.3594	8645.46094	14948.7930	9034.93750	22191.0703	6754.41016	3791.33203
JPN	2928.54272	8050.73047	31449.1602	45989.1953	22430.6055	35105.0508	35618.3297	33407.3594	20519.7031	13078.8633
NL	617.267090	1805.90625	5170.12109	5681.29297	2757.78979	3769.75513	4029.48145	4509.77344	7128.16016	1390.32544
NZ	332.468262	399.795912	1074.90552	1041.28442	719.625977	1193.89135	700.423654	1004.50903	1322.54468	255.583351
NOR	171.291459	714.751719	2073.18188	1944.66943	2686.60400	1659.53596	758.625488	1863.35791	1680.95239	205.322144
SWD	479.563721	1287.49990	5952.48828	4708.72656	3042.96631	7352.65625	1895.96851	3451.41699	3270.79346	531.914795
SWZ	396.256366	979.263986	3861.80786	3578.23950	1725.21460	2358.25415	2520.33965	2820.68921	1668.04077	717.794189
UK	3069.00073	6803.44828	14994.3398	15017.7813	13689.2383	21119.9414	17173.3844	7990.71460	20433.2109	4612.01172
US	31269.3711	47520.5117	105602.750	239308.000	94857.7500	272200.563	82033.2500	77143.6875	104100.000	26820.0000
SUM	56598.4531	96513.7500	284355.875	426011.000	199927.438	425009.688	217762.813	220672.813	222328.875	70655.0625

	322	323	324	331	332	341	342	35A	35B	355
AUL	538.867109	103.345627	166.127762	730.500488	295.461914	627.717529	919.831961	1499.60962	284.312500	346.709756
AUT	313.075664	42.9902589	128.670822	87.3261414	267.387939	448.609887	188.176270	819.778809	222.565659	151.081970
BLX	446.659447	27.9790649	50.7246399	56.5619765	595.619164	401.167236	337.761475	942.431152	434.173467	104.669891
CND	1802.41530	143.521759	263.288086	2033.06006	377.115723	4190.72266	1592.51668	3196.18311	1952.49550	730.476318
DEN	179.062637	26.7059259	30.9452301	165.443246	156.495201	191.213791	344.234037	429.963867	280.544678	40.5929650
FIN	219.593323	30.1835399	51.1961670	492.022998	119.379006	1452.39233	285.835010	412.918701	211.004807	56.9378052
FR	2806.15967	447.463622	809.782471	2519.49292	1485.50732	2648.54980	2932.97119	6045.28516	24985.5037	300.362305
GER	3837.71902	633.492822	904.605225	2384.86768	2110.71512	3491.35986	2609.15553	13952.8477	5290.55641	1373.69311
IRE	10.9526062	28.7219781	35.9923438	39.2958374	26.3281844	62.2307281	78.9851685	165.150803	76.5916595	26.3281844
IT	1449.43739	317.616895	561.402588	672.552002	547.351318	1492.99818	1187.80029	5959.87109	1629.39795	820.224609
JPN	2265.10132	575.052734	341.959717	6912.75391	1630.31274	6017.74516	5623.63156	15771.0125	4236.57813	1915.54813
NL	567.695313	74.5065460	135.668640	529.246582	250.764572	672.782959	1145.95508	2410.61696	1068.72412	367.528564
NZ	137.276779	26.7957056	40.1785581	219.937500	55.9196120	209.821426	145.089279	180.803558	94.6660583	58.0357056
NOR	128.851537	19.0476074	30.9523773	350.280029	141.035423	599.397705	309.943848	387.775879	134.617932	46.4985962
SWD	390.715576	63.8297882	58.0270444	1218.56960	251.384857	1854.63352	729.205787	1035.80225	346.228027	230.179103
SWZ	532.668945	95.0581555	185.125107	394.114746	211.160324	320.203857	695.782959	1137.94815	15.2919359	114.457825
UK	2612.75635	356.629639	663.475098	1114.40796	911.919189	2036.22217	3629.24731	4200.33203	695.505127	1027.28516
US	19410.0000	1789.00000	3330.00000	11560.0000	7030.00000	24710.0000	25820.0000	56310.0000	24910.0000	9470.00000
SUM	37844.0039	4788.13063	7841.92969	31426.6172	16469.3711	51516.5445	48571.2188	114900.000	66925.5000	17380.6211

	36A	362	371	372	381	382	383	384	38A	SUM
AUL	801.649902	129.219421	1635.53003	1176.27368	1690.25616	1577.65625	1155.09960	2392.68579	736.982422	61041.6133
AUT	487.248779	93.6445465	999.613770	289.911865	662.674072	704.405029	811.823975	667.310791	239.021698	24137.4259
BLX	508.427971	191.153361	2189.21094	492.954834	696.659447	1010.45700	798.303082	1270.12891	746.176221	39049.9829
CND	1122.43896	269.226807	2213.90088	2194.35742	3429.67529	2531.31030	3314.95791	7216.65797	1563.89209	128048.561
DEN	116.196777	31.6493530	102.416296	102.415885	417.945299	661.236328	395.245339	374.020995	236.483164	22041.7852
FIN	191.818192	30.3827667	261.283896	341.865967	299.993117	471.291748	298.033096	307.806924	137.559799	18054.1094
FR	3811.04199	771.550537	5059.78125	2586.95557	7425.72266	11226.4492	4925.72266	9010.86719	5114.12891	251074.563
GER	4111.93994	1205.14038	13733.5508	3070.17505	8141.84531	16539.2539	13952.9477	13240.1289	4632.67188	297284.503
IRE	59.8372305	23.9309907	47.8697968	26.3283944	62.2307281	28.7219781	105.313553	174.724762	93.3460846	6530.57031
IT	1494.06006	629.972656	4529.69141	720.706055	2841.09106	4329.05078	2934.18872	5078.64844	2390.03712	143011.125
JPN	5687.91797	1248.40787	18677.2891	6068.23438	11996.5484	21301.1133	22653.9086	20086.5936	8901.00391	410981.439
NL	509.869395	192.930252	1218.79370	650.820068	1537.33258	1388.93530	2188.21299	1439.81958	472.059814	54606.1797
NZ	32.6339264	21.2053528	51.3392792	25.7857056	224.333353	232.142853	127.212147	217.633926	114.955338	10313.9336
NOR	175.910370	23.9095245	301.260498	572.268799	362.469484	325.203961	328.431396	783.193115	146.498581	18992.9570
SWD	582.204834	85.1053883	1462.28247	607.350098	1813.25900	2197.29224	1143.13358	2237.91133	371.373047	48324.8086
SWZ	429.795898	89.2023572	275.254639	290.120361	1112.15097	1656.39478	1355.39994	334.568848	1028.49805	30937.2031
UK	2123.02417	662.996094	1909.08639	638.343506	3151.50694	10281.7070	7700.32813	10566.8203	4305.15797	183515.750
US	12410.0000	4570.00000	31930.0000	17830.0000	41580.0000	60120.0000	49390.0000	70990.0000	29340.0000	1582395.00
SUM	30203.9021	10294.5773	86847.6875	37670.8359	87014.4375	135442.563	113567.750	141543.625	60569.0469	

TABLE A2: EFT EXPORTS

	T	310	321	322	323	329	331	332	381	382
ALA	147.288598	537.695516	152.003906	-19.8067861	86.6481803	-17.1983865	-38.9883832	-5.57859993	-158.598877	-79.9369812
ATA	-48.9238772	-25.7503087	-12.4121063	39.3912966	-15.0277996	26.3983890	162.665909	-17.9621887	62.9716034	-19.3688049
BLX	-53.1905060	-16.8364073	192.587646	98.3756409	15.3893010	-37.9542999	-10.2115078	58.9822989	-68.8533878	11.3710822
CMR	288.831512	58.6998629	-363.373535	-89.3889105	5.70520020	-32.7970886	818.715698	-3.80870667	1795.91308	-201.611697
DPM	187.080521	108.806708	-165.065002	8.80029907	21.2153931	-18.5515747	-86.6585999	22.9843058	-180.577499	-9.24099731
FIN	-90.8885688	-11.8702087	-108.695496	87.9803892	92.9349060	5.26350021	351.077637	7.04890060	713.508057	-7.18080044
FR	-199.967529	159.553711	189.688004	119.121872	59.8059990	91.1983490	-53.2061005	-107.013397	-361.288668	-28.7303925
GFR	-1008.92007	-389.231201	-46.1657227	-151.907871	-158.716736	-122.889893	-201.982978	158.019302	-529.525879	46.5880932
IRP	17.5898928	78.1015167	-30.9807959	20.7702026	13.8113909	8.90950069	-16.3115913	-3.42969990	-80.4689928	-8.70380068
IT	168.808692	72.0026855	13.6093750	700.171387	-23.7582111	623.777100	-168.913895	86.5058932	-307.432861	80.6771112
JPN	-1165.68115	-351.052002	100.867432	291.903564	-55.4527893	113.735596	-6.36.261230	17.7111969	-183.182404	-82.1795044
NL	609.910645	302.868900	5.67211914	-169.912933	-22.6110001	-31.8680023	-139.815598	-95.8435974	-182.258041	-0.80920410
NS	89.7959747	463.938477	168.462692	0.89919987	52.3293762	-1.23509856	58.9637909	0.32910001	20.6232910	-18.6438904
NOP	39.2491150	11.2678255	-101.992700	-91.9538879	17.8685379	-20.5713959	-89.7438998	-5.68690491	191.967499	-10.0921001
SWD	-121.709091	-113.955707	-215.986801	-91.4820011	7.86489868	-80.0909882	820.291504	20.3352051	985.162598	-13.2885917
SWZ	-150.968903	-95.2258027	28.6975000	-120.886902	-46.3051987	-29.9383109	-58.5273083	-59.8021851	-113.080802	-15.1961959
UK	-659.598999	-32.1020508	19.9887695	-8.89989119	7.78103876	-25.1692963	-507.197510	2.90089798	-877.015869	69.6639031
US	1929.77979	-791.157880	-191.051270	-423.815527	-12.2642059	-888.867188	159.677734	-68.0510101	-852.933105	203.542664

	35A	350	355	36A	362	371	372	381	382	383
ALA	-388.675781	257.9216631	-58.0512888	-18.5279999	-39.5019989	-16.8161372	989.639893	-102.812103	-775.633301	-220.876791
ATA	-189.088989	-125.588078	8.88710022	83.3458895	7.03589867	158.126709	-27.0081024	-10.1524963	-231.764191	-18.6538017
BLX	171.672119	-159.103183	-22.5830078	-55.0549927	120.017395	1316.70703	206.009545	-50.0664063	-631.320313	-79.1162109
CMR	-261.963623	960.8710938	-68.2988892	155.633270	-88.5851892	-13.1367188	2372.79589	-383.009277	-1895.79956	-162.513184
DPM	-257.245605	-79.0072937	-56.5898880	2.18309692	-10.7045975	-301.269775	-58.0355988	-89.7316895	-280.885315	-123.462311
FIN	-205.392090	-98.7016890	-33.1102905	-23.6066742	-8.82813977	-104.962595	11.0581038	-52.2259064	-272.332275	-98.0726929
FR	-271.678467	-811.998828	122.195816	-27.5921021	53.5069122	28.7370605	-269.388502	-245.105957	-1301.68811	-265.349121
GFR	1318.77466	291.662358	-9.39160156	183.393775	195.887497	506.108862	-881.706787	771.696777	1504.95361	976.025635
IRP	-108.651031	19.3113965	-2.60179982	18.1605082	2.91389382	-56.1357880	25.8191953	-45.1108093	-209.238802	-32.3782981
IT	-638.902588	-38.5171098	8.77600098	118.289352	85.1629028	-819.324707	-660.619873	87.7230682	135.565895	-206.221191
JPN	-583.893311	-1079.85938	81.9850073	58.3769073	21.7530975	913.128174	-1079.38375	182.242432	-231.075195	984.018066
NL	140.817139	736.868957	20.9800028	-96.5833960	12.8863960	-261.160156	33.8051758	-226.365173	-806.691355	-127.891495
NS	-118.697266	-16.6862860	-5.78299808	-18.6127777	-5.99749947	-72.2393951	-28.6363831	-28.4831822	-87.9815901	-46.8659905
NOP	-79.7288818	-98.8983688	-26.5637817	1.62150574	-22.0379791	-19.8051991	283.363860	-59.6171112	-310.316895	-110.708398
SWD	-389.896582	-291.691986	-16.7012024	-89.3935089	-28.0883942	88.8085510	161.695540	21.8600006	-0.25987656	-210.087418
SWZ	84.0220313	-216.978897	-87.5609131	-62.3193027	-35.3252869	-388.185791	-110.001801	-53.2672882	121.351318	-115.018173
UK	3.77978516	43.9020996	106.055801	-99.9831152	-138.110901	-64.3185935	-704.893555	162.081504	247.297607	-42.4165039
US	1461.78219	311.316650	28.3578219	-78.5808105	-8.98169945	-888.395752	-277.959229	-70.6164551	2943.10767	179.579346

	388	38A
ALA	-508.878027	-200.173889
ATA	-288.563889	25.1288116
BLX	-209.061523	-17.9191895
CMR	-2712.93081	-516.476759
DPM	-390.950684	-99.9868011
FIN	-239.012741	-77.3852061
FR	556.732178	-312.866699
GFR	2665.98169	707.550537
IRP	-124.298132	-21.0711060
IT	77.4098185	5.49780238
JPN	930.369838	661.492832
NL	-939.527388	-175.823096
NS	-118.862074	2.96560669
NOP	-888.991211	-108.290887
SWD	188.667236	-207.827072
SWZ	-533.858398	101.884918
UK	690.721836	819.967285
US	1300.18692	-232.559105

TABLE A3: EMPLOYMENT

	2	4	5	6	7	8	9	1	310	321
AUS	79.0000000	70.0000000	464.000000	927.000000	412.000000	232.000000	1248.00000	441.000000	190.000000	78.0000000
AUT	32.0000000	33.0000000	258.000000	420.000000	188.000000	92.0000000	485.000000	577.000000	62.0000000	69.5000000
BLX	54.0000000	33.0000000	329.000000	678.000000	292.000000	105.000000	875.000000	197.000000	123.000000	126.268005
CND	125.000000	89.0000000	471.000000	1320.00000	603.000000	355.000000	2510.00000	609.000000	232.000000	97.0000000
DEN	4.00000007	15.0000000	221.000000	313.000000	192.000000	123.000000	586.000000	266.000000	71.0000000	22.5999908
FIN	5.00000000	19.0000000	190.000000	303.000000	149.000000	71.0000000	375.000000	485.000000	58.0000000	29.6999817
FR	207.000000	164.000000	1991.00000	3158.00000	1234.00000	999.000000	4233.00000	2865.00000	527.000000	439.000000
GER	336.000000	191.000000	2066.00000	3844.00000	1490.00000	1100.00000	4283.00000	2262.00000	510.000000	498.000000
IRE	10.0000000	13.0000000	76.0000000	171.000000	60.0000000	23.0000000	193.000000	283.000000	53.0000000	25.6999817
IT	149.000000	144.000000	1957.00000	2528.00000	989.000000	621.000000	2646.00000	3613.00000	229.000000	419.000000
JPN	209.000000	280.000000	3940.00000	10120.0000	3250.00000	1320.00000	9120.00000	4850.00000	1047.00000	1144.00000
NL	21.0000000	43.0000000	505.000000	927.000000	305.000000	257.000000	1095.00000	329.000000	175.000000	79.0000000
NZ	5.00000000	16.0000000	86.0000000	190.000000	96.0000000	55.0000000	188.000000	139.000000	50.0000000	17.4599915
NOR	8.00000000	15.0000000	138.000000	235.000000	157.000000	36.0000000	303.000000	209.000000	51.0000000	15.6000000
SWD	21.0000000	24.0000000	371.000000	556.000000	266.000000	192.000000	1046.00000	319.000000	75.0000000	33.6999969
SWZ	36.0000000	26.0000000	291.000000	466.000000	182.000000	134.000000	574.000000	231.000000	62.0000000	59.9999695
UK	419.000000	391.000000	1673.00000	3189.00000	1659.00000	1009.00000	6687.00000	699.000000	792.000000	615.000000
US	559.000000	735.000000	3573.00000	16691.0000	3936.00000	6627.00000	22570.0000	3462.00000	1690.00000	1113.00000
SUM	2365.00000	2300.00000	18596.0000	45940.0000	15400.0000	13160.0000	59017.0000	25836.0000	5996.00000	4892.52344

	322	323	324	331	332	341	342	351	352	355
AUS	79.0000000	9.50000000	18.0000000	54.0000000	23.0000000	29.0000000	74.0000000	60.0000000	5.00000000	21.0000000
AUT	39.6000061	4.10000038	14.6000004	5.19999981	24.3000031	27.3000031	18.8000031	19.8999939	3.80000019	10.1999960
BLX	69.0000000	9.00000000	10.0000000	31.2200330	21.1399994	28.0000000	41.0000000	71.0000000	11.0469999	10.0000000
CND	99.0000000	4.00000000	19.0000000	88.0000000	42.0000000	120.000000	94.0000000	79.0000000	17.0000000	26.0000000
DEN	19.9999847	2.19999886	3.12999886	12.8999949	13.7999945	11.0999956	29.3999786	20.7999870	2.39999962	3.89999771
FIN	31.2999878	3.19999866	7.59999657	44.2999725	10.1999960	45.9999695	27.5999756	17.0999908	2.29999828	4.69999790
FR	296.000000	45.0000000	89.0000000	158.000000	87.0000000	181.000000	225.000000	327.000000	92.0000000	84.0000000
GER	374.000000	53.0000000	99.0000000	185.000000	102.000000	212.000000	221.000000	599.000000	35.0000000	180.000000
IRE	19.0999909	2.19999886	5.89999771	3.79999828	4.09999847	5.59999790	11.0999956	7.39999619	0.79999971	2.19999886
IT	195.000000	30.0000000	88.0000000	72.0000000	68.0000000	75.0000000	78.0000000	263.000000	20.0000000	63.0000000
JPN	326.000000	39.0000000	29.0000000	551.000000	153.000000	315.000000	440.000000	503.000000	39.0000000	145.000000
NL	62.0000000	5.00000000	9.00000000	37.0000000	21.0000000	34.0000000	80.0000000	78.0000000	11.0000000	20.0000000
NZ	21.5699921	2.35999870	5.36999798	14.5599966	5.32999802	9.21999741	15.6799965	6.56999727	0.67999977	3.95999909
NOR	13.8999996	1.39999962	2.99999962	19.1999817	9.29999638	24.0999908	30.3000031	17.0000000	1.73999929	3.60000039
SWD	33.8999786	3.19999981	4.99999809	63.3999634	15.8999996	59.1999969	46.0000000	17.5999756	2.49999809	15.1000004
SWZ	33.9999847	3.99999809	11.7999954	26.5999756	14.3999949	20.5999908	50.6999817	70.8999634	0.89999968	4.79999828
UK	157.000000	45.0000000	91.0000000	128.000000	115.000000	247.000000	357.000000	455.000000	37.0000000	127.000000
US	1164.00000	96.0000000	204.000000	482.000000	354.000000	659.000000	1077.00000	1133.00000	144.000000	264.000000
SUM	3219.35865	351.959863	704.369141	1976.19018	1094.45924	2064.21948	2906.57935	3786.88916	426.226807	947.459229

	356	362	371	372	381	382	383	384	385	SUM
AUS	82.0000000	11.0000000	69.0000000	22.0000000	115.000000	99.0000000	89.0000000	142.000000	50.0000000	5146.00000
AUT	13.1999969	10.6000004	62.6000061	10.1000004	61.3999919	51.1000061	63.6000061	92.8999939	24.1999969	2767.99756
BLX	43.0000000	30.0000000	120.000000	29.0000000	67.0000000	103.000000	97.0000000	92.0000000	37.0000000	3730.67554
CND	39.0000000	12.0000000	65.0000000	51.0000000	126.000000	95.0000000	121.000000	147.000000	71.0000000	7725.00000
DEN	23.0999756	2.94999866	5.69999981	2.39999962	32.6999817	52.1999664	33.2999878	32.8999786	20.3999786	2088.89771
FIN	15.0000000	3.99999909	10.2799954	4.09999847	24.5999908	53.5999756	21.4999847	31.9999847	13.9999943	2060.29689
FR	219.000000	74.0000000	176.000000	29.0000000	488.000000	709.000000	396.000000	504.000000	349.000000	20287.0000
GER	267.000000	95.0000000	674.000000	124.000000	579.000000	1202.00000	1093.00000	759.000000	393.000000	23765.0000
IRE	6.39994676	2.59999847	4.29999828	1.29999924	6.69999695	3.09999847	10.3999958	12.9999952	8.29999638	1025.69727
IT	179.000000	60.0000000	183.000000	61.0000000	214.000000	267.000000	227.000000	323.000000	169.000000	15935.0000
JPN	455.000000	76.0000000	549.000000	156.000000	842.000000	1222.00000	1331.00000	309.000000	701.000000	48013.0000
NL	38.0000000	13.0000000	49.0000000	15.0000000	76.0000000	99.0000000	96.0000000	91.0000000	58.0000000	4528.00000
NZ	6.92999744	2.09999920	2.55999947	0.75999981	17.6799927	16.3399963	9.99999714	12.3599969	9.58999729	1006.08740
NOR	10.3999996	1.30000019	15.1000004	13.1999998	25.7999878	20.6999969	19.1999969	45.5000000	9.09999962	1467.69775
SWD	33.2999725	6.29999733	56.6000061	10.5000000	83.1000061	129.399948	71.3999634	102.599960	24.2999725	3697.99756
SWZ	22.6999817	4.69999790	17.1999786	17.6999817	70.4999695	106.799957	103.693951	23.2999879	115.599930	2793.03717
UK	281.000000	75.0000000	472.000000	131.000000	611.000000	983.000000	789.000000	365.000000	402.000000	23726.0000
US	422.000000	170.000000	891.000000	304.000000	1416.00000	2008.00000	1791.00000	1694.00000	1148.00000	76067.0000
SUM	3056.02930	650.988258	3430.55884	982.059326	4857.47556	7215.23439	6325.03766	5862.55952	3609.28906	

TABLE 40: NOMINAL TARIFFS

	1	310	321	322	323	324	331	332	341	342
AUS	13.0901899	26.4386749	32.9008179	62.1419678	20.4947510	8.77815437	5.22041702	50.9739922	3.45405769	45.0490537
AUT	5.72027779	12.0863119	13.5964380	29.8484650	4.97652835	24.6147504	8.50223263	21.6147919	15.4618590	2.35878948
BLX	11.3375568	20.2680511	10.1550007	16.2164001	2.87952423	9.95093209	4.37783098	8.97480736	9.40742970	3.01444054
CND	3.47161102	10.5615311	20.3249054	25.2701874	7.99325515	20.4637451	8.21515656	18.9031830	11.5036395	4.34786129
DEN	9.09870243	18.1843872	10.5050058	14.2477970	2.81213673	9.56227973	4.90493023	7.39278010	9.73018837	2.70136070
FIN	12.6777220	18.6617737	14.9985361	15.5899658	9.44517116	17.9341278	0.87981131	9.29632759	8.39313984	1.63482666
FR	10.7332689	27.5063883	9.55219841	16.0999880	3.18842411	11.2388802	4.24133154	7.71173096	7.65006924	2.93544886
GER	10.6745092	20.6615821	12.2606869	17.6495887	3.34503408	11.0051622	4.62603433	11.2251635	8.90305519	3.28899193
IRE	12.0945950	19.5103396	10.2881480	10.4303255	4.09011745	9.56602993	4.35927010	7.12744236	9.35895729	2.70854568
IT	8.33410560	16.2520615	7.92727375	19.8905182	2.45859832	18.8107452	1.97171116	8.01380920	5.17221832	3.16741276
JPN	19.1321259	32.4393768	1.14960388	17.7153625	1.62121010	20.9259488	0.07452013	10.5540085	5.35780239	0.09189087
NL	9.95371302	16.7479075	11.5039697	15.6782427	2.98023992	10.0469532	4.29845905	7.91586456	8.85441397	3.03753185
NZ	14.2429712	33.1149008	16.4066797	59.1779480	22.0095588	41.1553040	8.67505886	13.7728729	10.8628674	1.20537993
NOR	1.76103687	17.0820713	12.3112249	21.9351060	8.17861109	27.6395569	1.01101306	7.35789337	3.22188759	1.75446606
SWD	3.83687373	7.54991578	9.38129124	14.4955965	4.15823479	13.7011700	1.36676982	5.16619396	2.97335625	0.14377791
SWZ	3.65387159	10.9511261	8.52551746	9.63886070	2.34253349	8.37059184	6.17441025	9.31966057	8.21961071	1.14596844
UK	12.8931671	22.1591788	0.99787373	14.8855267	2.56841087	9.96410713	4.72163255	7.36639595	7.09339890	2.89051839
US	3.13810455	7.10012932	20.4538782	26.3199275	6.72299431	10.0789318	1.95322323	7.33736820	0.33722922	0.76181632
W-WTD AV	9.32499409	17.2267303	12.9765968	23.9579468	6.28695583	15.9875689	4.19575740	13.3513299	7.55360603	4.60323231

	35A	35B	355	36A	362	371	372	381	382	383
AUS	24.0559999	6.09325230	33.1373309	11.1056948	25.7973123	9.84165897	19.8441315	31.4508470	18.2074412	33.0277100
AUT	7.38530355	32.1853685	14.3902140	9.65625286	15.2675934	7.78704262	2.92930317	19.1861572	10.8093134	18.6993561
BLX	10.9357839	3.33345665	6.65962696	5.70145988	11.2776527	6.33497029	3.02827930	7.33668709	6.03156471	8.68519974
CND	9.53785902	1.61898737	10.3610726	8.75023270	10.2661937	7.19071235	1.70135901	10.9908350	6.30071239	11.9711256
DEN	10.2410089	3.70309353	6.55794098	4.65032101	8.27823206	5.27849910	3.36282294	6.76570225	5.15451603	0.10794640
FIN	2.82151861	1.61165339	15.3396521	3.52677917	14.0551743	3.38891529	1.21859093	9.05172157	5.93029355	9.68964005
FR	11.0372127	3.77298832	5.00284214	4.69978719	9.51232090	6.36172190	3.13903173	7.45305965	6.41515209	8.91393016
GER	13.5752997	4.56590557	6.78759098	5.29079078	10.4305162	7.14809369	2.97877876	10.5531456	8.12412624	11.3142018
IRE	6.40289376	3.51430893	5.98863892	4.01392411	8.32079928	5.76705160	3.44059694	6.67532730	5.78509472	8.05799088
IT	10.4775076	4.15487480	4.38135529	3.83473110	4.30103474	5.42037392	2.67495218	7.40013695	6.39317186	3.34983319
JPN	10.0185709	1.55857137	2.84386023	1.34960347	10.8393202	1.31227436	1.55311718	4.07622070	12.8760529	11.7599809
NL	11.3916095	5.71372860	6.59316654	4.25799597	9.26387122	5.50185292	2.97214222	7.23042107	6.03771114	9.12501251
NZ	14.3319466	12.2203627	16.6915580	10.3193521	16.2071990	7.39706445	11.4013720	24.4282688	23.3317261	25.0963590
NOR	8.11041812	0.18075919	7.39002390	2.50075054	8.90953966	1.26515198	0.75807577	5.67564297	0.39437297	7.77018261
SWD	5.77796459	0.00658592	5.91296101	2.24659630	9.19787979	4.35330391	0.92861074	5.22592000	4.95772610	6.93901596
SWZ	1.74589489	0.25501672	2.65521529	3.63725185	5.06535301	2.89103957	2.02434225	4.58380699	1.79374495	2.58292389
UK	10.6843920	4.37466412	4.19379330	6.62126986	8.35011959	5.42942524	2.90277575	7.24073595	6.37382789	9.56529427
US	6.34171591	2.99341809	4.31490993	11.2572188	12.9541378	6.32153606	2.23099897	8.79676605	4.37035629	7.22951606
W-WTD AV	9.44467599	3.97893116	9.26495266	5.91198635	11.4485712	5.37180176	3.84713840	10.4950976	8.54918385	11.4394503

	384	38A	W-WTD AV
AUS	33.1721497	27.1789505	25.0482788
AUT	19.4580081	10.2932016	13.2660046
BLX	9.61627403	7.32171396	8.33108711
CND	2.31262159	9.11298955	10.1938934
DEN	8.19998150	8.72155571	7.68456173
FIN	5.07815607	7.93575329	9.50994110
FR	10.3622332	8.67412663	8.50338650
GER	11.9963665	9.07075808	9.39006138
IRE	8.10880571	8.64942360	7.73954720
IT	3.20665832	9.42617607	7.91677723
JPN	12.8500437	9.51237774	8.87346742
NL	8.72271919	8.75533675	9.00640106
NZ	34.1919793	22.5701101	21.0942993
NOR	0.70020682	9.05279492	7.55138493
SWD	7.44019995	5.91907787	5.63973904
SWZ	5.25501729	2.53190063	5.13079357
UK	3.03824139	3.19120026	7.49528544
US	3.50527191	4.45709660	7.08215679
W-WTD AV	11.0900819	10.2417335	

TABLE A5: INDEX OF QUANTITATIVE IMPORT RESTRICTIONS

	1	311	321	322	323	324	331	332	381	382
ALB	0.08600003	0.15999998	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
ATA	0.32999998	0.86599998	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
BLX	0.05600002	0.01999999	1.00000000	1.00000000	0.0	0.92600000	0.0	0.0	0.0	0.0
CMR	0.0	0.14000003	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
DEN	0.02200001	0.07300001	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
FIN	0.01200001	0.15899998	1.00000000	1.00000000	0.0	0.87699997	0.0	0.0	0.0	0.0
FR	0.32900000	0.30100000	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.06000000	0.25999999
GFR	0.11000001	0.20599997	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
IRE	0.01700000	0.05900003	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
IT	0.09200000	0.14899998	1.00000000	1.00000000	0.0	0.89599998	0.0	0.0	0.0	0.0
JPN	0.66799998	0.66700001	1.00000000	1.00000000	0.18200002	0.87397998	0.0	0.0	0.0	0.0
NL	0.05800002	0.01999999	1.00000000	1.00000000	0.0	0.92600000	0.0	0.0	0.0	0.0
NZ	0.09600003	0.15899998	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
NOR	0.38999999	0.41500001	1.00000000	1.00000000	0.0	0.91900003	0.0	0.0	0.0	0.0
SWD	0.03200001	0.15899998	1.00000000	1.00000000	0.0	0.87699997	0.0	0.0	0.0	0.0
SWZ	0.64999999	0.71899997	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
UK	0.08600003	0.08400003	1.00000000	1.00000000	0.0	0.0	0.0	0.0	0.0	0.0
US	0.01800000	0.05800000	1.00000300	1.00000000	0.0	0.0	0.0	0.0	0.0	0.60603001
R-WTD AV	0.16589997	0.20166624	1.00000000	1.00000000	0.00783889	0.31638867	0.0	0.0	0.00333333	0.00811111

	35A	35R	355	36A	362	371	372	381	382	383
ALB	0.06699997	0.31899999	0.0	0.10299999	0.0	0.0	0.0	0.03700000	0.0	0.05199999
ATA	0.11699998	0.01399998	0.0	0.00999999	0.0	0.0	0.0	0.0	0.0	0.0
BLX	0.00999997	0.11600000	0.0	0.14999999	0.0	0.0	0.0	0.09500003	0.0	0.0
CMR	0.0	0.00700001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09700000
DEN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08100001	0.0	0.0
FIN	0.00999997	0.0	0.0	0.05800001	0.0	0.0	0.0	0.03299999	0.0	0.23500001
FR	0.08500002	0.92700002	0.0	0.24400000	0.0	0.00800001	0.0	0.03200001	0.0	0.0
GFR	0.0	0.57599998	0.0	0.01999998	0.0	0.0	0.0	0.0	0.0	0.00700003
IRE	0.0	0.0	0.35200000	0.0	0.0	0.0	0.0	0.0	0.0	0.02599998
IT	0.13200003	0.0	0.33200002	0.13799002	0.0	0.01700002	0.0	0.06599998	0.16200000	0.33099997
JPN	0.06199998	0.99399002	0.0	0.15100002	0.0	0.0	0.35699999	0.0	0.20200001	0.35200000
NL	0.00099998	0.11600000	0.0	0.14999999	0.0	0.0	0.0	0.09500003	0.0	0.0
NZ	0.06699997	0.31899999	0.0	0.10299999	0.0	0.0	0.0	0.03700000	0.0	0.04199997
NOR	0.17299997	0.0	0.89900002	0.05900001	0.0	0.0	0.0	0.33299999	0.0	0.00800002
SWD	0.00999975	0.0	0.0	0.06900001	0.0	0.0	0.0	0.0	0.0	0.0
SWZ	0.16900001	0.0	0.0	0.0	0.0	0.0	0.0	0.00800002	0.0	0.0
UK	0.06699997	0.01300001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
US	0.0	0.56199998	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-WTD AV	0.05333339	0.21705518	0.06866663	0.07072216	0.0	0.00999885	0.01999333	0.02699997	0.02665666	0.06261104

	39B	3MA	R-WTD AV
ALB	0.20999998	0.09100001	0.18065585
ATA	0.01999999	0.0	0.13395835
BLX	0.0	0.00800002	0.15286332
CMR	0.38200001	0.0	0.11913623
DEN	0.0	0.0	0.09709079
FIN	0.0	0.0	0.15899978
FR	0.17900001	0.21700000	0.20527212
GFR	0.0	0.0	0.13236356
IRE	0.80999999	0.0	0.12981802
IT	0.73799998	0.10299999	0.22277218
JPN	0.0	0.07700001	0.24595608
NL	0.0	0.00800002	0.15286332
NZ	0.20999998	0.09100001	0.18065585
NOR	0.0	0.0	0.21304526
SWD	0.0	0.0	0.14281787
SWZ	0.0	0.00900000	0.16322716
UK	0.0	0.0	0.10045639
US	0.01900001	0.00500000	0.16609079
R-WTD AV	0.11299995	0.02783331	

NOTE TO TABLE A5

The calculations in this table were based upon the detailed data underlying Table 1 in Murray and Walter (1977, pp. 21–22). The procedure was to record the value of 1973 imports for a given country and commodity category that was subject to some type of NTB, as identified in underlying documents prepared by the U.S. Department of State and UNCTAD. The NTB's included: discretionary license; global quota; health and sanitary regulations; bilateral quota; state trading; variable levy; and prohibition.

The NTB data were compiled at the 4-digit BTN level. The import data, based upon the SITC, were concorded with the BTN classification insofar as possible. The results were then concorded and aggregated to correspond with the ISIC categories that we have used throughout the study. The numerator of the fractions reported above thus measures the amount of imports for the given ISIC sector that were covered by some type of NTB. The denominator of the fractions measures the total imports for that sector.

In the absence of detailed information for textiles and wearing apparel (ISIC 321 and 322), we set these fractions at unity on the assumption that imports for all the industrialized countries were subject to NTB's. Murray and Walter did not report NTB coverage for Australia, New Zealand, and Finland. For Australia and New Zealand, we generally assumed NTB's equal to the median NTB for all countries imposing them in the given sector. For Finland, we used the median NTB's for Denmark, Norway, and Sweden.

APPENDIX B: SOLUTION FOR FORMULA 2

The tables of this appendix report selected results, for all industry-country cells, of a 50% tariff reduction in all countries (Formula 2).

Tables B1 and B2 show respectively the absolute and percentage changes in employment resulting from the tariff cuts. For Table B1 the units are man-years.

Table B3 presents the absolute change in net trade, with the figures corresponding to those in Table A2.

Tables B4 and B5 show the percentage changes in home and import prices respectively. The first seven columns of the import price matrix are zero, since these are nontradable commodities.

Table B1: Absolute Change in Employment

	2	4	5	6	7	8	9	1	310	321
AGR	-858.061760	-1379.969918	-1584.809869	-11782.1320	-4882.402234	-2569.16508	-10459.2813	-3622.48975	1426.79785	8836.689922
ATA	-389.412842	-586.066697	109.408112	-4686.30859	-1820.55396	-1114.38525	-4408.08596	-6088.45703	-701.591309	330.350342
BLK	-609.302295	-690.622314	6468.87109	-7804.00781	-3218.09863	-1500.78296	-7706.19531	-1722.80103	-848.573777	3042.689019
CHD	-602.468994	-797.910864	2842.13398	-7270.66797	-3347.07715	-2241.19506	-11008.9492	-2650.01563	-1098.11938	306.207031
DEM	-80.8403501	-256.613708	-371.740723	-3176.97339	-1421.76611	-1529.09546	-8663.91797	-1961.13379	-549.581055	525.665723
FIN	-37.C798492	-190.581579	638.137988	-1953.09619	-851.668063	-524.605957	-2207.29541	-3251.87476	-352.002930	-308.941162
FP	-792.584561	-1082.61475	-2780.67285	-12380.6719	-4702.02734	-4876.31641	-13337.6563	-8866.35547	-2557.29663	4156.04736
GFP	-1616.52490	-1879.02393	273.975586	-17632.4883	-6508.75781	-5964.61328	-15175.6289	-9218.05859	-2319.27100	347.771973
IFE	-118.819287	-254.290771	162.357620	-2161.65918	-740.322510	-134.089355	-1912.35913	-2868.16699	-583.715088	423.496045
IT	-448.058350	-1061.81616	-1625.31860	-12501.7109	-4659.03906	-3397.02979	-9830.21094	-18158.2773	-1713.90527	577.193604
JPN	-257.537549	-588.312256	-6584.75000	-14437.2422	-8130.71094	-2067.99243	-8999.62109	-9891.87095	-1699.87095	286.430908
NL	-265.048889	-878.107910	-3203.54981	-10718.5703	-3700.97632	-3807.53979	-10577.6992	-1050.39404	-2671.85864	970.178314
NZ	-61.3069916	-353.483643	765.393066	-2745.25049	-1100.52393	-857.202637	-2161.37207	-1358.83911	1113.21875	1890.50757
NOR	-40.0697327	-159.477188	192.900345	-1810.16089	-1013.98560	-253.860703	-1292.98389	-1058.01392	-434.638428	110.004779
SWD	-120.692865	-220.664718	-1084.69385	-3190.22339	-1375.02856	-1331.54105	-4893.19043	-1654.12036	-565.755127	-94.9339142
SWZ	-190.528442	-202.228424	575.498779	-2295.61230	-701.074463	-780.885498	-2883.89941	-1993.45093	-374.814697	-2087.62549
UK	-1785.06274	-2518.77881	12816.2852	-13996.0586	-7424.41357	-5955.52344	-21750.5781	-2352.59717	-2715.38257	666.149927
US	-4631.341553	-840.259301	72359.08203	-12168.8398	-2776.33374	-5700.35938	-13016.6875	-3267.25806	-2230.89111	-1034.03735
SUM	-8815.08047	-14000.6797	114768.4063	-143509.563	-54182.2070	-44407.6914	-134225.188	-78203.8125	-19506.8281	24942.0703

	322	323	328	331	332	381	382	384	350	355
AGR	-1050.61963	1978.90552	2435.58838	-848.237930	-335.567902	-86.3935608	-2630.77261	-1338.81909	4196.51172	-1396.72168
ATA	507.292480	25.3969280	1260.89380	595.215576	-270.055908	205.695221	106.397819	-138.037521	-345.887158	49.8803972
BLK	-918.072998	332.075836	982.598877	672.679443	866.696045	591.953613	861.540039	6750.87109	-1135.30498	1611.77729
CHD	-885.350098	62.8691895	731.059631	949.085449	81.8988647	3518.65576	-399.777344	510.960449	-134.984894	-193.807755
DEM	560.795805	330.762108	245.752655	6.86643219	789.918213	96.4992371	441.561260	872.052002	-99.7055206	174.864456
FIN	-379.638135	83.0394440	438.620361	560.818848	177.027756	769.538086	-157.125061	145.248047	-149.185715	-456.619629
FP	-967.136719	895.080078	1796.32642	-270.805176	-8.53600597	-8.14066217	655.077637	2371.36646	-2048.72217	3027.17798
GFP	-3228.24268	-380.851807	971.966797	-812.951369	945.859398	-893.904053	1507.52905	6022.37012	-191.556885	1423.32544
IFE	216.573242	73.6439819	368.559814	-24.2665863	19.1948242	-6.55224514	156.561371	66.7593842	29.0748749	203.631378
IT	-1869.08838	-98.9618835	1035e.8945	-183.721298	1230.11670	-331.051270	338.863770	-1214.80054	-1110.21802	1431.52832
JPN	-2620.96484	-108.384521	618.759033	-367.816650	-224.775665	-486.357910	-100.051575	-1371.48575	-392.063477	1702.70996
NL	-285.695752	106.259766	399.847402	-477.534180	177.415131	141.303455	674.133789	2292.92090	-461.190674	1004.01294
NZ	-96.5255432	775.122803	-86.9766998	228.120621	0.44235003	148.378967	-102.980392	-198.887756	-70.6593399	-79.8836670
NOR	-52.3930664	89.5959320	388.908447	-50.7255249	43.2448120	305.940186	-116.583969	955.041779	-105.105331	64.4100952
SWD	-448.837031	-71.4291687	317.231689	19.2697754	239.381729	539.095947	-155.108322	310.680908	-183.461328	27.8408680
SWZ	-630.256104	-96.0859528	118.718262	-205.840515	-151.671097	-282.627686	501.521484	3519.17822	-339.080078	6.81282043
UK	-1428.16211	277.566406	1152.19287	-888.081252	1201.31396	-107.002609	3229.23926	7759.68359	-1264.01440	5358.72266
US	-1616.53613	-407.658936	553.855469	96.9836578	161.603302	258.226318	-262.217041	3793.98145	-2284.58398	5331.46875
SUM	-19698.9570	9375.92285	22955.5195	-501.072998	5353.99609	8863.23047	4536.38672	28235.7109	-8879.99219	19625.2617

	36A	362	371	372	381	382	383	384	38A	39A
AGR	-193.165588	-175.945205	721.770508	3183.40576	-1733.18848	357.702393	-1062.10596	-1241.00177	379.402588	-27081.3516
ATA	284.128174	216.981445	1240.25610	88.3201003	-199.290924	1256.26270	494.193848	-985.167725	1095.53052	-12943.9453
BLK	524.419678	2723.08423	2540.96216	-317.888428	3606.48999	2889.46606	2946.86299	4522.36719	2028.68262	17347.0938
CHD	479.309204	-67.2879883	374.773438	1272.47119	-409.373291	1235.99512	212.493118	1383.71167	339.677887	-17084.5625
DEM	211.490265	61.0615234	127.069580	3.24203135	1121.94824	1914.91870	949.232178	-67.0921021	1329.04712	-4851.85547
FIN	-30.7456055	17.9978638	60.6788878	-18.5156250	91.3656616	628.571975	100.306854	341.913865	161.475769	-6748.96094
FP	784.210962	936.442529	2189.88037	-6.81951237	877.240234	5552.40625	1928.40405	3536.29297	3284.93408	-20228.8516
GFP	328.132568	971.352295	-198.396912	-1069.10596	8636.38672	11980.7188	7160.67188	6635.89844	7722.48047	-15581.2188
IFP	278.171875	83.4760590	-22.3123517	68.5391650	370.976074	225.379456	297.711426	15.9115448	548.361572	-5867.80469
IT	929.062988	394.383545	-278.860962	-414.862549	3009.02075	3997.37329	1284.31677	3231.77515	2327.22949	-25792.2168
JPN	204.394455	66.4925537	238.274094	-339.681641	1969.52808	209.651947	3202.30420	855.655029	3671.38257	-42191.1602
NL	158.806381	370.329163	833.231689	-63.2343750	1425.08594	2138.48584	1537.15112	46.4570160	5006.83203	-23115.5859
NZ	-105.429108	-26.8161072	5.97204208	14.0602551	12.3977919	279.940918	-91.9705505	-516.649658	576.362549	-4200.36328
NOR	162.016327	-15.6798458	368.459180	-37.9910431	309.074463	239.561630	141.202927	1176.36182	119.909454	-1891.77563
SWD	-20.1495709	58.8228912	99.2552032	-154.909363	1592.98608	1772.22388	651.387695	1208.78394	538.780518	-8425.67188
SWZ	-126.823364	13.3591309	-161.303262	-303.816162	1399.91089	1286.08496	1028.75024	-156.579971	3571.94507	-7162.65723
UK	371.491943	509.452588	5211.98828	-81.5995941	15222.5117	10135.9648	4865.19531	6106.23828	9903.56250	28338.8125
US	-885.507568	89.8563232	-178.063568	-512.222900	4040.24683	6987.65234	1356.31274	5849.73438	2326.05542	-12549.6875
SUM	2934.87976	6245.03125	12774.7578	1267.20496	45188.3867	56106.2969	28942.4414	30062.5898	45730.0938	

TABLE D2: PERCENTAGE CHANGE IN EMPLOYMENT

	2	4	5	6	7	8	9	1	310	321
AUS	-1.15413761	-1.97124100	-0.34146738	-1.27101707	-1.18503906	-1.10739803	-0.83809339	-0.82142609	0.75094587	11.1291025
AUT	-1.09191513	-1.76099269	0.05752251	-1.10526085	-0.97263491	-1.21346188	-0.90883399	-1.05519199	-1.19611458	0.47532427
BLX	-1.12706688	-2.09279442	1.36522181	-1.15103340	-1.10207081	-1.42931652	-0.88070816	-0.87451822	-0.68989581	2.40970707
CND	-0.89197509	-0.99652908	0.62469912	-0.55090837	-0.55507082	-0.51402321	-0.43863334	-0.93874419	-0.64574105	0.31567743
DEN	-1.01600838	-1.71089268	-0.16820848	-1.01436806	-1.00121159	-1.24315692	-0.79589039	-0.73726809	-0.80222672	2.32684040
FIN	-0.61799735	-1.05857468	0.33496737	-0.64458621	-0.57159655	-0.73888153	-0.58859956	-0.66952109	-0.60690153	-1.04020596
FR	-0.38287425	-0.66013074	-0.13966209	-0.42370743	-0.30101974	-0.18960856	-0.31509762	-0.30877334	-0.48525518	0.94699053
GER	-0.47932267	-0.77439780	0.01326116	-0.45870131	-0.43975095	-0.54223758	-0.35432243	-0.40751803	-0.45475882	0.06983370
IRE	-1.18419265	-1.38695265	0.21162841	-1.26412773	-1.23387051	-1.45256233	-0.99095939	-1.11277924	-1.10134888	1.64765072
IT	-0.41787698	-0.73737204	-0.07283175	-0.49452966	-0.45085330	-0.34702568	-0.37151217	-0.39187032	-0.75171250	0.13775498
JPN	-0.12886975	-0.21011156	-0.16712568	-0.14256044	-0.12709880	-0.15662919	-0.09459002	-0.11164445	-0.18006522	0.02503768
NL	-1.26231548	-2.03280926	-0.63436514	-1.27607860	-1.21303922	-1.38151305	-0.96052027	-0.92717111	-1.52677631	1.22805835
NZ	-1.22613525	-2.29927334	0.86673605	-1.44496809	-1.14637952	-1.55859989	-1.10965583	-0.98477638	2.26643658	10.8276539
NOR	-0.50007160	-1.32318096	0.14195547	-0.60005827	-0.54585060	-0.70516837	-0.42672712	-0.50866044	-0.95223204	0.70515829
SWD	-0.57187080	-0.95277798	-0.29237026	-0.60975212	-0.51692796	-0.59353169	-0.46779513	-0.52678990	-0.75413994	-0.28173300
SWZ	-0.52924562	-0.77790145	0.19776589	-0.49262047	-0.38523581	-0.58275121	-0.50241947	-0.51664519	-0.60454011	-2.98232259
UK	-0.42602903	-0.75160561	0.74215680	-0.43893539	-0.34752431	-0.55059713	-0.32525660	-0.33656609	-0.34285128	1.00340751
US	-0.06515739	-0.11976302	0.20260519	-0.07290655	-0.37051691	-0.08601719	-0.05767252	-0.09379715	-0.13200533	-0.09790580
TOTAL	-0.37274849	-0.60872620	0.07940638	-0.31238544	-0.35183595	-0.33239305	-0.24775846	-0.30269390	-0.32533079	0.50979960

	322	323	324	331	332	341	342	351	352	355
AUS	-1.17992363	21.9875235	17.5100256	-0.83032354	-0.59942544	-0.15103915	-3.55423696	-2.17003105	81.9302521	-6.65105534
AUT	1.28108115	0.61938834	8.51625336	11.4454521	-1.11133198	0.33661207	0.56594610	-0.29581381	-8.78911670	0.40910187
BLX	-1.35010620	3.57851610	9.32598876	2.15457939	4.09979248	2.11411953	2.10131605	9.50826931	-10.2752323	14.1171694
CND	-2.99430135	0.67952856	1.85189056	1.07850552	0.19493725	2.93221281	-0.47592521	0.64678525	-0.79390925	-0.64086539
DEN	2.80400181	15.3337458	7.57995509	0.05322818	5.79284860	0.14867289	1.83391405	2.26968261	-3.73771003	4.49373647
FIN	-1.21758098	1.23635801	5.77132320	1.27503109	1.73555610	1.57290378	-0.59755545	0.80940344	-6.40633765	-9.92807670
FR	-0.33915956	1.10017776	2.31834393	-0.17132566	-0.00521380	-0.00577350	0.29110568	0.72077935	-2.65730577	4.55615379
GER	-0.48990833	-0.71859764	1.09209729	-0.43903411	0.92731190	-0.42165256	0.68211975	0.67263693	-5.46732712	1.01665069
IRE	1.19653797	3.34745502	5.90925653	-0.63459409	0.46813193	-3.11495167	1.41085238	0.58493167	2.63436413	9.25605297
IT	-0.95096757	-0.12957257	11.7713701	-0.25516850	1.40993423	-0.41740090	0.43444037	-0.16080931	-5.55103929	4.21691463
JPN	-0.40397683	-0.27793385	2.11364697	-0.06675434	-0.13783716	-0.10125252	-0.02273699	-0.22259290	-1.00524003	0.82945526
NL	-0.45112199	2.12516975	4.40263706	-1.02036190	0.84493361	0.41559225	0.48255734	2.33964195	-4.17264912	5.07006435
NZ	-0.44740899	12.4402078	-1.51967754	1.56676197	0.30821925	1.50931587	-0.64400758	-2.95732594	-10.3904066	-2.01624870
NOR	-0.37666039	3.54259821	13.4106455	-0.28502905	0.43274015	1.33543625	-0.38475555	2.67683125	-5.03319762	1.90020009
SWD	-1.12398891	-1.70057596	6.14463978	0.03019397	1.50551466	0.97685138	-0.37713200	0.92627982	-7.55365467	0.18875807
SWZ	-1.85369092	-2.40215015	1.00608635	-0.77386719	-1.05327129	-1.37197971	0.98913457	3.96358207	-35.8531691	0.14193588
UK	-0.51709284	0.61681271	1.24106693	-0.69391517	1.03561497	-0.04112089	0.90059953	1.70918179	-5.31040633	4.21945907
US	-0.31847761	-0.47402191	0.27149779	0.32012113	0.34563780	0.33918460	-0.02434699	0.33486152	-1.58651638	0.20131367
TOTAL	-0.48763252	0.35902855	1.25901606	-0.02535558	0.47091281	0.21621986	0.15607315	0.74561834	-2.08339891	1.54362965

	361	362	371	372	381	382	383	384	385	TOTAL
AUS	-0.45991725	-1.75245190	1.06436825	14.2892002	-1.49912727	0.16131573	-1.19337658	-2.24390394	0.75976509	-0.52626055
AUT	0.85580985	2.23567295	2.04513761	0.47643852	-0.32957805	2.45452499	0.77703404	-2.29642869	7.83277130	-0.46762973
BLX	1.73120975	9.07634626	2.11746883	-1.09601098	5.38282013	2.90530643	3.07841992	5.32431483	9.08292542	0.46495477
CND	1.26155099	-0.56081635	0.57657468	2.49500185	-0.32449944	1.30100733	0.17275458	0.94130039	0.45020157	-0.22115976
DEN	0.91558296	2.10557079	2.22929001	3.11509630	3.43103509	1.56842942	2.85054779	-0.14313716	6.51499217	-0.23236607
FIN	-0.19215977	0.44934652	0.59930963	-0.45160574	0.16815317	1.11271231	0.46659179	1.36447477	1.15339851	-0.32757401
FR	0.16631099	1.26600266	1.22152233	-0.01661900	0.97795129	0.79320109	0.48702097	0.70164517	0.94124186	-0.09971150
GER	0.12139857	1.02287529	-0.02326201	-0.86219226	1.49153185	0.39671194	0.65533921	0.99478561	1.34032192	-0.06556380
IRE	8.34643936	1.21061707	-0.51935720	8.96301460	5.53699065	7.27004137	2.86261082	7.12239653	6.79953038	-0.53113401
IT	0.51902980	0.65730512	-0.14986616	-0.68013241	1.40603311	1.31474629	0.56605077	1.00059835	1.37705801	-0.16185987
JPN	0.94492195	0.04740014	0.04340149	-0.21774471	0.23391069	0.31715646	0.24817696	0.10078389	0.52402020	-0.00787447
NL	0.41685438	2.94461999	0.98414621	-0.42156237	1.47501049	2.15003568	1.60117820	0.05105166	8.63246918	-0.51050407
NZ	-1.52134321	-1.26392937	0.23329292	1.45907376	0.37012326	1.71122441	-0.91973563	-4.19001556	6.01001838	-0.41829199
NOR	1.55744988	-0.97110323	2.44145203	-0.28791068	1.49795371	1.36063325	0.73541191	2.58541107	1.21120644	-0.13067645
SWD	-0.06056900	0.47920504	0.17536247	-1.47532654	1.91695023	1.38024426	0.91230792	1.17815209	2.21720600	-0.22784519
SWZ	-0.55869291	0.29423738	-0.92726123	-1.71647739	1.98563916	1.16670895	0.99204516	-0.57201704	3.08991909	-0.04162050
UK	0.15414715	0.57059547	1.10423470	-0.03175526	2.49140930	1.15743596	0.64955872	0.53211578	2.46357195	0.11480187
US	-0.20983591	0.05285665	-0.01994465	-0.16949434	0.28532915	0.14799075	0.17623299	0.34532100	0.20261806	-0.01681194
TOTAL	0.14900725	0.35931512	0.37238209	0.12903637	0.33028545	0.74989973	0.45733[illegible]	0.51278955	1.26701069	

TABLE B1: ACTUAL CHANGE IN NET TRADE

	1	310	321	322	323	324	331	332	341	342
AUS	2.99560110	52.2781241	73.5006409	0.57676274	15.6207752	-0.50357340	0.40132809	-2.35032749	2.20527267	-30.1042955
AUT	0.71778458	1.03285027	6.09238338	8.30138779	0.36129339	4.50915432	5.62003465	-0.30701447	3.96527576	1.51563931
BLX	0.32163754	-4.20209263	-20.2925720	-4.67798800	-0.61321018	1.23301983	-0.76152444	4.09149265	-9.50074577	0.92298698
CND	0.85880661	-2.42629918	1.46206856	1.14142323	-1.01442337	-8.16220760	14.9103802	-2.95923710	76.5171661	-6.17837429
DEN	0.62496376	1.02657890	1.89890390	5.11171436	2.41339684	0.20227373	-0.59775226	5.09563637	-5.90256119	0.87082630
FIN	0.21254627	-0.35093349	-0.07725817	0.08908653	-0.67193557	1.05706596	5.52155781	0.60503620	20.9038849	0.14882361
FR	1.58828540	-5.00893581	2.66565418	8.61578369	2.01887512	6.58997345	-1.55687809	-5.94451866	-14.4905109	2.55364511
GER	1.75329971	-9.34761050	-25.2658266	-6.20982688	-6.79185440	-15.4303656	-9.61135960	7.77622700	-41.4566040	3.28201199
IRE	0.12906237	-0.12620735	0.90972631	1.84599846	0.58473941	0.93649042	-0.23987579	-0.09458005	-1.59432831	0.30418706
IT	-0.95662594	-7.59325314	-7.67848873	-3.67987388	-1.22311211	53.2925110	-1.18505287	7.67472935	-9.52616405	3.68831582
JPN	1.21270466	-1.53952274	-16.4336853	-11.0748768	-1.86809777	5.64128113	1.36732197	1.03592968	-6.79417992	1.33498955
NL	-0.66930907	-5.06135559	-1.50517065	4.12652697	0.91917098	2.46671200	-2.85264497	-2.62572002	-8.17359161	2.23855696
NZ	0.39967123	23.6693641	16.7022705	0.46804708	6.22423597	-0.40745091	3.18472672	0.00801045	3.14782429	0.88350576
NOR	-0.22684449	-2.15225792	-0.22755569	0.06355870	-0.59513277	-0.09102702	0.07483428	-0.25613499	5.19620209	-0.33642721
SWD	0.14276820	-1.02355099	-1.56664276	-1.63935184	-1.36689281	0.10680825	1.50455047	2.40761375	15.3531408	1.07012653
SWZ	0.21877420	-2.31699657	-10.4727640	-3.01630592	-1.64299439	-3.40563319	-3.88465347	-5.79931755	-7.48522758	0.94155079
UK	2.56115150	-11.5005512	-6.93416214	0.97592531	-0.59631863	-2.35816574	-13.9991846	0.96857434	-35.4549103	5.17754459
US	-12.0046396	-24.7531097	-12.5757277	-1.02470022	-11.7384233	-45.6369019	-0.30616856	-5.42638681	12.9900912	11.6865645

	351	352	355	361	362	371	372	381	382	383
AUS	-48.2077789	85.4763829	-30.9870945	-0.27742672	-4.39293405	16.0982056	99.9595029	-31.0933685	-39.0919427	-37.0663499
AUT	-2.30610371	2.16811657	-1.07286876	4.19102491	0.72022057	18.2475196	1.91063239	-7.59625149	-4.15235828	-5.11543806
BLX	26.1966854	-3.80355835	1.27941859	-0.30451788	6.71327496	19.7141724	-14.7362571	6.65542698	-14.5509758	-0.30063101
CND	-4.55408851	19.1841098	-12.4165501	7.02719707	-4.49011859	4.18213106	25.4880179	-40.3078339	-35.9923210	-26.5317677
DEN	-7.58625507	4.37981360	-0.93949890	2.29053636	-0.05485076	-2.49949921	-0.20391790	0.94187088	5.19074917	1.40626431
FIN	0.90732765	-0.01792046	-6.08099747	-0.13053455	-0.44357286	-0.11913580	-0.27590096	-4.04526043	-5.93800030	-4.02305508
FR	-21.8066254	5.58407931	17.9613017	5.65144253	4.94675064	26.5353451	-5.15431788	-8.29920959	-13.8257181	-8.39103284
GER	5.91896971	-37.1999831	-6.93343262	4.11920125	4.70817987	-19.4396667	-29.2323151	49.2023621	59.9444427	29.4915771
IRE	-3.08054924	1.22855854	1.06374602	1.88129616	0.40912919	-0.92997807	0.43643075	0.41622353	-2.99533710	0.31865978
IT	-52.8198030	-11.7794952	7.37759666	9.27113914	2.34665951	-23.7572021	-9.12203610	8.66038513	12.5872803	-3.47234159
JPN	-56.9137878	2.49172020	7.92648220	5.86696315	0.58963051	15.2033186	-9.58001094	27.7708282	-31.9310608	46.6546021
NL	17.7390817	21.5225706	5.07439986	1.91272545	1.99003029	3.54009326	-1.39705497	-1.34492493	-7.58741706	3.40931702
NZ	-7.14529303	0.41679780	-2.07256985	-0.95748580	-0.40292299	-1.11983431	-0.70332211	-6.57760916	-8.24118037	-5.95395184
NOR	1.94015160	-0.50985714	-0.50998828	1.84658913	-0.98239838	4.45214176	-2.51617432	0.11174714	-11.7363586	-4.02465534
SWD	-5.73189103	-2.53979547	-3.30152512	0.85475254	-1.14787865	-1.50314999	-6.10895058	9.13980675	0.91114902	-5.54611070
SWZ	36.7370573	-1.63225269	0.09060841	-2.23125458	-0.39993366	-6.64460950	-4.16951523	1.40895001	6.58282099	6.96388493
UK	-1.86597290	-6.55631545	15.6765567	-7.33019066	-5.75131416	2.30163216	-12.6441565	20.5442352	17.6631165	-0.24982379
US	120.268112	-90.1159602	5.95453796	-30.4810791	-4.46303983	-54.1792101	-32.3551331	-28.8378448	73.0241394	13.4886802

	384	385
AUS	-106.820236	-22.2231429
AUT	-39.5134796	5.71495043
BLX	-0.31673849	4.55403091
CND	17.0628399	-31.5351575
DEN	-15.2924912	2.05828476
FIN	-4.43726635	-2.93218709
FR	0.24501786	-0.62785319
GER	23.7993627	13.9923151
IRE	-3.82778169	1.42189353
IT	29.5397830	2.75976563
JPN	1.27102561	19.1681350
NL	-39.9456936	7.35364633
NZ	-22.3492079	0.97029830
NOR	15.0923004	-4.79397488
SWD	2.05741333	-4.08386991
SWZ	-16.8266754	17.3731388
UK	11.5003357	27.4696139
US	139.505502	-93.5597229

TABLE B4: PERCENTAGE CHANGE IN HOME PRICES

	2	4	5	6	7	8	9	1	310	321
AUS	-0.59106209	-0.55650435	-0.55617130	-0.36889374	-0.40631998	-0.59842575	-0.42491364	-0.78190374	-0.63966137	-0.51760036
AUT	-0.57836956	-0.50217098	-0.50178093	-0.31281791	-0.36659412	-0.53990293	-0.38335961	-0.70629120	-0.57745165	-0.46622493
BLX	-0.70278007	-0.61019063	-0.60971636	-0.40440857	-0.44542915	-0.55603889	-0.46582190	-0.85939056	-0.70243216	-0.56963450
CND	-0.29677288	-0.25767392	-0.25747365	-0.17077515	-0.18813147	-0.27701494	-0.19673933	-0.36187053	-0.29642135	-0.23886472
DEN	-0.56678206	-0.49211007	-0.49172747	-0.32614989	-0.35923958	-0.52908617	-0.37567902	-0.69111034	-0.56585266	-0.45862007
FIN	-0.35032737	-0.30417711	-0.30394065	-0.20159566	-0.22201970	-0.32701215	-0.23221004	-0.42852682	-0.34991511	-0.28265649
FR	-0.21951741	-0.19057658	-0.19044840	-0.12631935	-0.13913512	-0.20491743	-0.14553221	-0.26833767	-0.21927649	-0.17653650
GER	-0.25608659	-0.22231317	-0.22214037	-0.14733976	-0.16223913	-0.23901725	-0.16971475	-0.31423187	-0.25597316	-0.20617086
IRE	-0.65489774	-0.56825955	-0.56782770	-0.37662506	-0.41483563	-0.51095770	-0.43391935	-0.79970914	-0.65352839	-0.52880269
IT	-0.24916667	-0.21199834	-0.21183360	-0.14050347	-0.15475839	-0.22792739	-0.16194044	-0.29879283	-0.24405731	-0.19652396
JPN	-0.06909955	-0.05997592	-0.05994923	-0.03976275	-0.04373691	-0.06450379	-0.04583111	-0.08508527	-0.06913477	-0.05551735
NL	-0.66953388	-0.58132333	-0.58087069	-0.38527644	-0.42436457	-0.52503197	-0.44373412	-0.91604959	-0.66863430	-0.54123949
NZ	-0.73198885	-0.63550794	-0.63505393	-0.42121410	-0.46398873	-0.58330127	-0.48517990	-0.89334172	-0.73052865	-0.59516984
NOR	-0.34108622	-0.29694371	-0.29661304	-0.19673544	-0.21669537	-0.31914777	-0.22651173	-0.41850358	-0.34163380	-0.27635288
SWD	-0.31682837	-0.27508730	-0.27487338	-0.18231618	-0.20081317	-0.29575652	-0.21000266	-0.38831729	-0.31677496	-0.25593734
SWZ	-0.26092666	-0.22655028	-0.22637415	-0.15014791	-0.16539119	-0.24357259	-0.17294437	-0.32008123	-0.26100481	-0.21071690
UK	-0.25107777	-0.21793899	-0.21782959	-0.14448053	-0.15913896	-0.23437897	-0.16542135	-0.30712253	-0.25090301	-0.20210350
US	-0.03961927	-0.03433954	-0.03437279	-0.02273857	-0.32511160	-0.33699424	-0.02625073	-0.04875173	-0.31965621	-0.03182748

	322	323	324	331	332	341	342	353	354	355
AUS	-0.52727190	-0.71392761	-0.56476295	-0.50371478	-0.52633266	-0.48772512	-0.87247640	-1.01590326	-0.61697471	-1.57293805
AUT	-0.47889686	-0.58638412	-0.64311582	-0.45766717	-0.67857277	-0.35775974	-0.42995153	-0.59004759	-0.58421862	-1.04267785
BLX	-0.59326214	-0.73425132	-0.64126878	-0.90035776	-0.70261951	-0.56997571	-0.59912030	-1.09856663	-0.72094359	-1.25030460
CND	-0.20425107	-0.37422519	-0.30339267	-0.27849370	-0.18522249	-0.22877085	-0.27597332	-0.41058678	-0.30475289	-0.56620199
DEN	-0.47045339	-0.57504946	-0.69252288	-0.59169950	-0.61305535	-0.53981151	-0.44171065	-0.35772851	-0.57710111	-0.89257807
FIN	-0.28972472	-0.32679101	-0.31932737	-0.27450585	-0.35242236	-0.25504768	-0.27095336	-0.26774535	-0.35179429	-1.36518955
FR	-0.19087775	-0.22359317	-0.22167963	-0.16863076	-0.24521930	-0.19189768	-0.17407319	-0.41817051	-0.22649586	-0.31681359
GER	-0.21191299	-0.27575701	-0.31326801	-0.24193779	-0.27522506	-0.24185423	-0.21254571	-0.40923655	-0.76498131	-0.36757761
IRE	-0.58691591	-0.66899580	-0.62460003	-0.59820128	-0.64546204	-0.59990734	-0.51757378	-0.99903692	-0.66255672	-0.76944291
IT	-0.20120419	-0.24011019	-0.21177572	-0.21602392	-0.24002492	-0.20595051	-0.19734722	-0.39979473	-0.25412933	-0.25552231
JPN	-0.05679461	-0.07257544	-0.07240188	-0.05191462	-0.07017964	-0.35442588	-0.05141521	-0.12210029	-0.01396635	-0.06189511
NL	-0.56576353	-0.68273723	-0.59993124	-0.59770902	-0.90535597	-0.59130766	-0.53095151	-1.03623191	-0.68820900	-0.81836197
NZ	-0.60372039	-0.69773052	-0.67607945	-0.58725549	-0.66489719	-0.51863401	-0.50751269	-1.31291702	-0.70836314	-1.00684076
NOR	-0.28910431	-0.56167650	-0.33921546	-0.27307409	-0.39223284	-0.25715142	-0.28063425	-0.57120037	-0.15580409	-0.56179088
SWD	-0.26470107	-0.39782258	-0.31579936	-0.25338179	-0.32104171	-0.23300427	-0.23649453	-0.44163835	-0.13469430	-0.63251411
SWZ	-0.21735103	-0.28529971	-0.12345390	-0.29119131	-0.44674611	-0.27749971	-0.20709180	-0.16531962	-0.29331130	-0.30077103
UK	-0.20707965	-0.26089423	-0.26986833	-0.29754365	-0.24343791	-0.25002027	-0.20051223	-0.51176322	-0.26170262	-0.26631105
US	-0.03258121	-0.06020553	-0.09505905	-0.03795128	-0.04275181	-0.02797171	-0.01031208	-0.24639069	-0.04129155	-0.05165655

	361	362	371	372	381	382	383	385	384
AUS	-0.58980513	-0.56522914	-0.89240973	-0.56083483	-0.91031692	-0.54035266	-0.82265621	-1.12073307	-0.80367696
AUT	-0.55519597	-0.55250490	-0.46695884	-0.46844441	-0.96019997	-0.18809946	-0.69225062	-1.54408073	-0.85416509
BLX	-0.78806434	-0.91723311	-0.59087759	-0.64327654	-0.70647298	-0.59158160	-0.85332501	-1.67864990	-0.77719462
CND	-0.34509594	-0.31054592	-0.24210072	-0.23340976	-0.43245709	-0.25181776	-0.35903569	-0.22081508	-0.17612188
DEN	-0.49576533	-0.51508804	-0.49136239	-0.48261207	-0.64715846	-0.17593059	-0.65902952	-1.01142738	-0.69766045
FIN	-0.32051545	-0.42356700	-0.29158294	-0.28135463	-0.54187512	-0.29560399	-0.45362633	-0.53760939	-0.46298057
FR	-0.19280944	-0.19375293	-0.19121832	-0.19157959	-0.24617593	-0.18445318	-0.25391684	-0.41532516	-0.22692329
GER	-0.21277661	-0.22558069	-0.20909728	-0.23671550	-0.30702472	-0.21495904	-0.26203271	-0.55039518	-0.33499444
IRE	-0.50791960	-0.55383081	-0.50044025	-0.57176087	-0.96157429	-0.55105031	-0.74235998	-0.89669001	-0.78187472
IT	-0.21747987	-0.19933102	-0.20350033	-0.23391217	-0.28572293	-0.20600511	-0.26657623	-0.30269217	-0.28293163
JPN	-0.05510415	-0.35819876	-0.05207890	-0.06117415	-0.07097297	-0.35835399	-0.06453925	-0.12159121	-0.08445603
NL	-0.61906029	-0.50702723	-0.55245757	-0.56286328	-0.75305027	-0.56215790	-0.72665725	-1.17556858	-0.89219380
NZ	-0.70092963	-0.65477526	-0.59690362	-0.72159203	-1.01297198	-0.52037093	-1.00852299	-2.11009785	-0.90908742
NOR	-0.30849271	-0.41137934	-0.26558452	-0.28949846	-0.43051350	-0.29308999	-0.45665056	-0.09405129	-0.52244252
SWD	-0.27286947	-0.39781284	-0.26485606	-0.27143494	-0.35021103	-0.26570414	-0.39940625	-0.60356778	-0.42218637
SWZ	-0.26900280	-0.26009662	-0.23512542	-0.24477178	-0.30409618	-0.21821170	-0.22193691	-0.62610954	-0.26106811
UK	-0.10211282	-0.26739959	-0.21771061	-0.26693022	-0.29392362	-0.23077689	-0.28943967	-0.15283732	-0.29154080
US	-0.05900099	-0.04574791	-0.03704654	-0.03731560	-0.05619909	-0.03337943	-0.08653561	-0.34646674	-0.06209109

TABLE 85: PERCENTAGE CHANGE IN IMPORT PRICES

	2	4	5	6	7	8	9	1	310	321
AUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.06930828	0.71364450	-0.90664583
AUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.22408366	-0.45420861	-0.81279129
BLX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.90892295	-1.03352070	-1.00903130
CAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.14279854	-0.38607645	-0.41455925
DEN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.18212110	-0.43369822	-0.80840809
FIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.38829868	-0.60125740	-0.49405992
FR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.16771585	-0.32538688	-0.30563319
GER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.45808959	-0.63511142	-0.35425783
IRE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.35676758	-0.59166471	-0.92802660
IT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.34212744	-0.54475181	-0.34107971
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.22553617	-0.39622408	-0.09584588
NL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.52850914	-0.74350309	-0.95138437
NZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.41504985	0.10152495	-1.06373501
NOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.46108621	-0.55875140	-0.48565042
SWD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.55424927	-0.73931515	-0.44895445
SWZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.47236019	-0.52772281	-0.36931205
UK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.30233300	-0.52568912	-0.35094969
US	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.31547869	-0.32844463	-0.05442565

	322	323	324	331	332	341	342	354	350	355
AUS	-0.62316482	-7.05723881	-2.05066890	-0.69235783	-10.3037691	0.15450376	-13.1599937	-6.26049042	0.50481932	-11.4459209
AUT	-0.59562990	-2.11405422	-9.07948017	-3.30063534	-7.52953251	-6.05270572	-0.16324627	-1.47831087	0.01304967	-4.85253620
BLX	-0.76270473	-2.01531167	-1.17082596	-2.35281181	-1.59181309	-4.52942948	-1.34725295	-1.94039685	-3.94751763	-2.55758476
CAN	-0.29391967	-1.65322231	-9.24300890	-1.39700794	-6.31051861	-5.73911465	-1.31302547	-2.29351425	-0.18007135	-1.39325809
DEN	-0.61968267	-1.35509700	-3.80426407	-1.96404552	-2.22861189	-4.33441909	-0.55987810	-3.03026390	-0.20172515	-1.84301716
FIN	-0.35317421	-1.51994599	-1.23341326	-0.27899069	-3.35612202	-3.58997720	-0.27554602	0.32143511	-0.42033119	-5.67262652
FR	-0.21827918	-1.45950031	-4.41917896	-1.50776479	-2.33363086	-2.91231823	-0.50743700	-3.16570091	-0.26405358	-1.47567489
GER	-0.25982441	-1.90705251	-4.69854946	-2.11811520	-4.23409081	-3.98959732	-1.14803513	-4.56301727	-0.30033197	-2.28558635
IRE	-0.69519074	-2.11856651	-4.91184068	-1.88130874	-2.37973590	-4.04617023	-0.73962971	-1.74086150	-0.37013632	-1.40774727
IT	-0.24308211	-1.36111736	-2.47554684	-0.76696277	-2.77019110	-2.23354340	-0.96367222	-2.90245724	-0.77750881	-0.80022683
JPN	-0.06805952	-0.90332139	-0.02576981	0.08331935	-3.91305351	-2.19551489	0.44527421	-2.94858109	-0.13124943	-0.44062156
NL	-0.72928071	-1.72296406	-1.04336733	-2.02269410	-2.04705784	-4.40356674	-1.05441263	-1.93105024	-0.57313561	-2.25665237
NZ	-0.72145313	-4.29595738	-13.2972899	-2.89646339	-10.7857859	-3.77805721	0.49167121	-3.65619373	0.02738647	-5.23753975
NOR	-0.36899263	-4.29595043	-1.23173141	-0.40019594	-2.84577751	-1.13491543	-1.33745098	-2.05602169	-0.47714859	-1.47554970
SWD	-0.33397084	-2.51106644	-1.04091499	-0.69011855	-1.73254490	-1.43413353	0.28385697	-1.42501991	-0.59335750	-2.42844355
SWZ	-0.27006835	-1.59869205	-3.80000977	-3.03071213	-3.70995952	-3.91723355	-0.30013561	0.14205730	-0.72261465	-0.61843395
UK	-0.25054914	-1.35835579	-4.05449361	-2.00956440	-2.44605400	-1.10212669	-0.78824461	-3.13579407	-0.33271164	-0.94757629
US	-0.03910629	-3.29849125	-4.16974031	-0.73550731	-2.36595044	0.01029475	0.06094518	-1.51850224	-0.18341351	-1.02577972

	361	362	371	372	381	382	383	384	385
AUS	-2.61317062	-7.37632313	-2.54428882	-6.86255219	-8.76321793	-5.68529224	-9.19661522	-7.72494602	-8.05754662
AUT	-3.34985639	-5.58611589	-3.02389050	-1.18712262	-6.33787441	-4.04206276	-6.30389977	-6.34120655	-5.11021461
BLX	-2.26549767	-4.53081608	-3.48161015	-2.10739567	-2.41162596	-2.39209395	-3.29581642	-1.57167912	-3.13165283
CAN	-3.19135761	-3.46027441	-2.38794937	-0.91094573	-3.45487499	-2.43534946	-3.63792038	0.07379447	-3.25993061
DEN	-1.41515732	-2.65670962	-2.16224861	-1.63456917	-1.65758991	-2.17384047	-2.42075425	-2.41046244	-3.11997318
FIN	-1.06637096	-5.21274512	-1.51063919	-0.82461396	-2.81665851	-2.42419347	-2.62791061	-1.19890858	-3.02750206
FR	-1.06595115	-3.14583779	-2.56188750	-1.45452404	-1.87795162	-2.34974766	-2.65552139	-2.44897747	-2.42442989
GER	-1.95749507	-3.85735593	-3.29270009	-1.75370789	-3.60687065	-3.35191231	-4.03595339	-4.21286593	-3.94362069
IRE	-1.29109192	-2.84125005	-2.32351971	-1.83704676	-1.82795478	-2.30923782	-2.55624294	-1.45700512	-3.25585175
IT	-1.38307834	-3.13673800	-2.36456966	-1.48591940	-2.02711773	-2.22510529	-1.95507526	-0.37935718	-2.87274456
JPN	-0.10625595	-3.97600379	-0.60470795	-0.72264021	-2.96213112	-3.38053849	-2.73981901	-4.34403624	-3.05059052
NL	-1.45033357	-1.40900894	-2.59302117	-1.78695202	-2.09791551	-2.59113121	-1.10757725	-2.90310860	-3.45005894
NZ	-2.90678215	-5.11600019	-2.24394367	-4.40416813	-7.37503147	-9.72573526	-7.60922868	-8.53461552	-7.32085705
NOR	-0.66509927	-1.19799580	-0.55344717	-0.65765786	-1.45495510	-3.55401707	-2.53213128	0.82297591	-3.51308010
SWD	-0.65987779	-3.43525318	-2.13083172	-0.85771853	-1.40533496	-2.11441517	-2.26107693	-2.40804769	-2.29279709
SWZ	-1.46700959	-1.44400978	-1.57735905	-1.52094746	-1.23542891	-0.90819992	-0.44865163	-1.57114697	-0.06264388
UK	-2.42722130	-1.02819633	-2.35912323	-1.54735756	-2.33735687	-2.53326130	-2.74445629	-2.82932281	-3.02339649
US	-0.40371609	-4.71960258	-2.77949047	-1.27916909	-2.72257619	-1.32728705	-2.13313485	-0.19409029	-3.14813192

Representative LONG. Well, thank you very much, Mr. Stern.

The similarity of the position is taken by you and Mr. Cline, in many of these instances, is particularly interesting.

The political implications that I referred to earlier—perhaps we are seeing only the tip of the iceberg, but the political problems appear to me to be much more severe than is generally recognized. Perhaps what we need to do is to have a massive educational program, and I would like to discuss that after we have an opportunity to hear Mr. Richardson.

STATEMENT OF J. DAVID RICHARDSON, ASSOCIATE PROFESSOR OF ECONOMICS, UNIVERSITY OF WISCONSIN

Mr. RICHARDSON. Thank you, Congressman Long. I will try to be brief. I have a prepared statement that is somewhat longer, and I would like, with your permission, to have that inserted into the record.

Representative LONG. It will be made a part of the printed record.

Mr. RICHARDSON. It is no news to this committee and yourself that almost a half century's increasingly liberal U.S. international trade policy, ever since the Reciprocal Trade Agreements Act of 1934, is under attack today.

The question I would like to pose and answer for you today is whether that attack is justified.

My answer will have a somewhat different tone from Bob Stern's and Bill Cline's. I would like to give basically the answer, yes, that attack is justified on liberal trade policy both in principle and in practice.

But having said that, let me add that to my mind the bottom line is not abandonment of a liberal trade policy, but rather a cautious and innovative reshaping of it to take account of three potential offsets to the national gains that we do receive from liberal international trade. These three offsets loom larger now than they have ever since the thirties when that first Reciprocal Trade Agreements Act was passed.

I would like to refer to these three things as three ways in which more liberal international trade policy is not as attractive today as it was in the recent past to the United States, and having said that, let me take just a moment to dispel the notion that I am going to waffle on what is called the principle of free trade. My reading of economic theory, and economic history, and economic politics convinces me that what is called the principle of free trade is not a "principle" at all. That is, it is nothing that we should swear undying allegiance to, come hell or high water. Trade policy is instead rather like situation ethics, unfortunately for pure freetraders, but also unfortunately for pure protectionists.

There are circumstances in which certain trade restrictions are justified—even on the grounds of economic theory. We have an economic theory of the "second-best" that elaborates the grounds on which trade restrictions are, indeed, justified, but which we rarely put into practice when we give testimony.

There are also circumstances under which the status quo trade policy should be preserved against attempts both to make it more liberal and against attempts to make it more protectionist. All these circumstances have to do, crucially, with the three ways in which liberal trade policy is less attractive today than it used to be.

Let me describe now the first way in which I think this is true.

The first way is that any multilateral changes in trade policy may well today dislocate more resources—labor, machines, and plant—and it may dislocate them for a longer period of time, than used to happen. That is to say, trade-related unemployment and excess capacity will be more enduring than used to be true.

The result of this is that both people and capital are made involuntarily unproductive. The national product declines by the value of goods that could have been produced but are not produced by these men, women, and machines. And the overall national welfare declines further to the extent that there are very real subjective and psychological costs of unemployment of people, which can seriously reduce future productivity of those displaced.

In the longer run, we as economists believe that wages and prices which are inflexible momentarily, and which cause involuntary dislocation, are generally much more flexible. Wages and price inflexibilities moderate in the longer run because almost all prices cease to be rigid when we have contract renewals and lease renewals and things like that.

Yet, even in theory, temporary displacement caused by trade liberalization can in some circumstances undermine its desirability. This is true, despite the indefinite recurrence of the familiar benefits that Bill Cline outlined, because future gains, even those that go on forever, are subjectively discounted compared to present losses, and the present losses from dislocation occur immediately.

Now the importance of this particular offset, this dislocational offset to the gains from more liberal trade policy, is often dismissed by U.S. economists. They doubt that in practice it could ever convincingly overrule their presumption that freer trade is almost always desirable. My colleague Bob Baldwin quotes somebody who said, "Free trade, like honesty, is more or less always the best policy."

The grounds for that aphorism and for doubts about how large the dislocation is, are rarely more than gut feeling.

It is only recently in some of the research that Bob Baldwin and myself have done, and some of the research that Bill Cline has done, and some of the research that Bob Stern has done, what we have firmer foundations for the usual practice of saying, "Well, you might be right in theory, Dave, but you are wrong in practice."

To give you an example, let me cite the Wisconsin results where we actually try to quantify the loss from the involuntarily unproductive men and machines that this offset imposes.

We find the overall benefits from engaging in multilateral halving of all existing tariffs, reducing them 50 percent, would be an extra $1 billion—much smaller than Bill Cline's figure—in real consumption. What that is is a measure of what U.S. buyers, whether industries or individuals, would be willing to pay in order to trade at more liberal world prices.

Or you could view it as the bribe that someone would have to pay buyers to make them contend with the status quo. Either way that is what the $1 billion represents.

That $1 billion turns out to be very large compared to our estimates of the lost output from people and machines made involuntarily unemployed. It turns out to be 200 times as large as the output lost because of capital dislocation; it turns out to be 25 times larger than the output lost due to labor dislocation.

And even if you were to take the labor dislocation from import competitive industries, all by itself, forgetting all about export gains from this exercise—even that is only one-third of $1 billion in lost output.

So, despite our feeling that in principle there are circumstances in which dislocation alone could undermine a more liberal trade policy, we don't find for the United States that this is the case, given our calculations.

However, it is something to keep in mind because things change. The bottom line for the time being from this exercise is that liberal international trade policy appears to be nationally beneficial despite the very high rates of overall unemployment in this country, and the increasing wage and price inflexibility in the U.S. economy.

Yet it could be even more beneficial if these problems were solved nationally.

Now I have been referring to national gains from more liberal trade policy, but that word introduces the second of my points, the second way in which more liberal trade policy is not as attractive today as it used to be. National gains aren't all that is relevant. Any change in the trade policy as you well know creates gainers and losers. Hence, it alters the U.S. income distribution among individuals, between the rich and the poor, and between industries. Because in more recent years, what is called equity in income distribution has become a much more important policy goal than it used to be in past decades, the impact of trade policy on income distribution is examined today with a heightened vigilance, a vigilance that never used to be there.

Representative LONG. Going back to my point about looking at the political implications of this: One of the things that causes a great deal of concern around here are the regional economic dislocations that are occurring. This was not one of the points you mentioned of course, because you were looking at it from a purely economic perspective.

I well recognize that you were not covering that. But when you look at the economic implications of the regional changes, they nevertheless contain severe political implications as well.

Mr. RICHARDSON. That is true; I could have mentioned distributional effects among regions. I think that we are able to show that New England and the Upper Midwest are going to suffer more from more liberal trade policy than the rest of the country would—the industrial Midwest is what I want to say. That is the real poltical issue, indeed. These are things we have often ignored as economists, but should not, to my mind. The possibility has to be accepted that the moderately increased satisfaction of certain regions, certain individuals, even if they are in a majority, could be insignificant when compared to dramatic unhappiness if visited upon a minority.

Significant enough distributional consequences of trade liberalization could even, in turn, weaken the economy through social malaise and unrest. I don't think that is true in this economy, but it certainly is true in many economies worldwide, and the result is indirect impacts on incentives and confidence and uncertainty which all stem from the more liberal trade policy and the pressure it puts on certain individuals and regions.

Now, I find it insensitive to dismiss the self-interest of regions or individuals on the grounds that it's self-serving or selfish. People sometimes accuse one another of being that way, because of the absence of a sufficient compensation mechanism.

In its absence, not everyone in this society can win from more liberal trade policy, and how do you balance gainers versus losers in that situation?

Economists don't have any good answer, or definite way of doing it.

One source becomes immediately apparent for the notorious disagreement among equally intelligent people on whether trade liberalization is socially desirable or socially disastrous. Some weigh severe losses for the few more heavily than others in trying to assess national distributional welfare.

Some feel that New England textile workers and Youngstown steelworkers are already victims of an ungenerous society, and they will recommend foregoing large trade liberalization gains to avoid victimizing those workers further.

Others feel that those same workers have largely victimized themselves by not being willing to move and adjust when all the signals prompted them to.

We have done a little research at Wisconsin on these matters, too, and we find that breaking down labor groups by wage rates per hour worked, we don't come to any solid conclusion as to whether more dislocation from more liberal trade is progressive or regressive. What we find is that it is progressive in the sense that more liberal trade helps the poorest paid workers, who are the agricultural workers in this country. But almost all the other poorly paid workers are injured by a more liberal trade policy. That is to say, they are dislocated more than proportionately to their share in the labor force.

We find that the highest paid workers, the most skilled groups, for the most part are less severely dislocated than you would have thought from their share in the overall labor force.

We also find that, as you might well imagine, certain industries bear the brunt of this dislocation much more than other industries, and I can cite some of those for you in the question period if it is interesting.

The third reason why liberal trade may not be as attractive today as it used to be is that liberal trade policy as we interpret it in the United States has been rejected by the great majority of developing countries worldwide. I think that if the United States is to maintain its considerable gains from trade with the developing world—more than a third of our exports are to the developing world, and almost half of our imports are from the developing world—then we may have to pay a price to do so.

The price we may have to pay is moving toward much less liberal, much more politicized trade, as given perhaps by the new international economic order, which is proposed with notable solidarity by the developing countries in concert.

The issue at stake in the new international economic order is again a distributional issue, only in this case the issue is regional among nations rather than a regional one within the nation.

It is comfort, I think, but very cold comfort, for developing countries to suspect that, although trade strengthens their economy, it strengthens the economy of developed nations far more; that is their suspicion.

They are confronted constantly with an exasperating anomaly; it's that liberal international trade—as we interpret it here—may well make the rich richer relative to the poor and thus increase international income inequality.

Exasperation in the developing countries is compounded by the belief that the gains from international trade are distributed among nations roughly in proportion to market power under a liberal trade system, the power of buyers and sellers in the market. To the strong go most, and to the weak go some, but only what can be extracted from a residual veto; namely, "We will not trade."

To commentators in the developing countries, distribution based on market power is worse than arbitrary; it is positively inimical to their development because it condemns them to a vicious circle of relative poverty—relative to us—from which they can emerge only by chance.

Their relative poverty requires spending on what are viewed as the necessities of the day, on penalty of collapse, and little is left over for them to accumulate capital and technology at a faster rate than we do in the United States, which would enable them to close the international gap in living standards and to end their relative poverty.

Now, our natural reaction in this country has so far been very reluctant support for the new international economic order, at best. I think we tend to feel in this country that international trade does alleviate absolute poverty in developing countries, and to alleviate their relative poverty more than a certain degree would be to concede too much to jealousy and covetousness, however well disguised it is as equity.

But I think perhaps we should keep reminding ourselves in our consideration of the new international economic order that we have seen these issues before, the very ones the developing countries raise, but in quite another context. The arguments on both sides of the demand for a new international economic order bear striking resemblance to those which divided management from labor within this country in the early years of labor union formation and confederation.

We today, the developed countries, play a role analogous to the owners and managers of yesteryear; the developing countries play a role analogous to the laborers and their unions.

The debate in both instances is over how to divide the spoils from mutually beneficial exchange, how to split them up; it is also over how widely to allow those with market power to buy and sell, or hire and fire, if you like, freely, without any rules or procedures to protect the economically weak, rules which are invariably administratively negotiated and bureaucratically enforced.

I think the developing countries look hopefully to the future when their proposed rules and procedures for a new international economic order will be as accepted and appreciated as those governing labor relations within developed countries today.

If you will permit me a few more minutes, I would like to speak a little bit on how the three offsets to more liberal trade come together on the very issue of imports of manufacturers from developing countries.

All three offsets are important when we look at manufactures imports from developing countries. Organized labor in the United States for very good reason seeks protection against what they call low-wage imports. It is true in theory and in practice that their impact on U.S. labor is either fewer jobs or lower wages, or more likely both.

Yet, it is hard to say whether such dislocational/distributional objections as U.S. labor voices are significant enough to outweigh the gains to what we might call the whole of U.S. society.

Furthermore, it may be true that dislocation or distributional losses from those kinds of imports are not inevitable.

We do have assistance aspects of trade adjustment assistance, especially under the more liberal Trade Act of 1974, that compensate for at least some of the distributional losses to those displaced by developing-country goods.

And adjustment aspects of trade adjustment assistance, while they are minimal under existing legislation, could in principle reduce the overall economy's loss from enduring involuntary unemployment of both people and physical capital. I think that certain proposals under current consideration to strengthen the adjustment aspect of U.S. trade policy should be welcomed on these grounds.

What I have in mind for example is what I have called human investment tax credits, for industry hiring workers who have been certified to have been displaced by imports, certified as a recipient of trade adjustment assistance.

Another idea is community assistance programs to aid both prospering communities and faltering communities to move trade-displaced workers from one place to another.

Both of those ideas and proposals have the virtue of not extending government intervention and regulation beyond where it is now, because both investment tax credits and community assistance programs are familiar policies to us in other contexts. There are also some gains from the adjustment standpoint to portability of fringe benefits. Even portability of seniority within a firm across different plants and different regions of the country has an unexpected dividend in providing places for trade-displaced workers to go within the same firm, and in assuring them of certain continuity in their benefits and salaries.

I think the payoff is extremely high to any policies which ameliorate the internal consequences of manufactures imports from developing countries. The payoff is very high because those policies will buy votes both in this country and votes abroad. They reduce domestic adjustment burdens, and they facilitate developing countries in seeking to attain a goal of 25 percent of world industrial production by the year 2000.

Unlike many traditional trade policies, adjustment policies do not aggravate one set of problems at the expense of another. They don't aggravate internal problems at the expense of international problems, as the GSP system does—it aids the international distribution at the expense of domestic dislocation.

Imaginative adjustment policies can reduce internal problems without frustrating developing countries in their goal of a more equitable international income distribution. Yet, I must say it is no small job to design workable and politically acceptable adjustment policies. At that point, I, as an economist, yield the floor to you as the real pro in devising workable and politically acceptable adjustment policies.

Thank you very much for this opportunity.

[The prepared statement of Mr. Richardson follows:]

PREPARED STATEMENT OF J. DAVID RICHARDSON

Crucial Issues for Current International Trade Policy

In our judgment, two issues are of paramount importance for trade policy today. The first is how trade policy should be shaped or augmented in light of its heightened impact on dislocation and income distribution within countries. The second is whether and how trade policy should be applied to narrowing the increased inequality of income distribution among countries.

Both issues have a long history. But both have become more crucial in the profound global economic flux of the 1970's.

Widespread stagnation has raised global unemployment rates toward pre-World War II highs. More importantly for trade policy, stagnation has lengthened the duration of both the average job-seeker's unemployment, and the operation of capital at sub-optional rates of capacity utilization. As a result, any men and machines that are displaced by trade liberalization are involuntarily unproductive for longer periods of time than during the 1950's and 1960's. Both their personal burdens and the overall social cost of their unproductivity are offsets to the gains from freer trade—offsets that loom larger now than at any time since the Great Depression.

World-wide inflation, on the other hand, has significantly altered the internal income distribution in many countries. Owners of natural resources, land, and sophisticated human capital have fared well; semiskilled and unskilled workers have fared poorly. Unlike inflationary boomlets during the 1950's and 1960's, the much more dramatic outburst of the 1970's seem to have been regressive in its internal distributional impact. Pressures to "catch up" and to maintain former standards of living have heightened the vigilance with which all policies are examined for adverse incidence. Trade policies are increasingly suspect, given the nearly world-wide growth in the open-ness of economies (measured by the share of tradeables in overall production).

As a result of recent import pressures in an economic environment of high and enduring unemployment and inflation, protectionism is currently stronger than at any time since the early 1930's. Voluntary export quotas, orderly marketing agreements, target (reference) import pricing systems, and increased resort to escape-clause relief all reflect a new interventionist sentiment. Support for a liberal international economc order has been eroded dramatically in the U.S. and elsewhere by the internal dislocational and distributional consequences of trade.

Furthermore, most poorer developing nations now almost unanimously oppose the liberal international economic order of the past 30 years. Their opposition is based largely on the international inequality of income that the old order has failed to eliminate. Their solidarity is nurtured by the successful predatory price of OPEC (Organization of Petroleum Exporting Countries). Oil prices sextupled between 1970 and 1974, and the terms of trade deteriorated dramatically for oil-importing nations. OPEC's model of politicizing a part of international trade, and of pursuing transfers of wealth from other countries, rather than wealth creation, has prompted other developing countries to do likewise. Their commitment to succeed, along with OPEC's explicit support (in the fashion of a prosperous Robin Hood), has led to the formulation of plans for a "new international economic order." The most important of these plans—thorough-

going integrated commodity agreements, preferential trade policies, and international pacts on technology transfer and "common resources" all shift the international income distribution in favor of poorer developing countries through political intervention in market processes.

In richer, developed countries OPEC has heightened still further the internal jealousy/equity impulses that rivet attention on dislocation and income inequality, by making them suddenly poorer and by forcing significant structural adjustments among sectors of the economy. Many of the proposals for a "new international economic order" would do likewise.

What follows are some reflections on liberal foreign trade, and on whether dislocational and distributional issues alter the case for it. The reflections are usually straightforward, but unfortunately neglected. Their neglect seems to be responsible for the sterile irrelevance of most classroom international economics, for the propagandistic artifice of some congressional testimony, for the inflammatory rhetoric that engulfs discussions of international income inequality, and for the obtuseness of much journalistic reporting on all.

THE GENERAL CASE FOR LIBERAL FOREIGN TRADE

International trade strengthens an economy for many reasons. Having some is better than having none, although more and more is not necessarily better and better. The pattern of trade, and not merely its existence, may also be strengthening. The U.S. has comparative advantage in goods that are believed to have special economic and strategic production value: goods which feature stable export earnings and a monopolistic position in the world market; high-technology, growth-promoting manufactures;[1] armaments.

The U.S. also has a comparatively well-diversified set of stable suppliers and customers, few of which can match the market power of the U.S. economy. This enhances U.S. independence and bargaining power, and mitigates uncertainty. In sum, both the industrial and geographical pattern of U.S. trade is favorable. On the other hand, the pattern of international trade can also increase a nation's economic and political vulnerability. And it can create pressures on selected labor groups and capital-owners alike that are productively debilitating. Developing countries especially feel victimized by these negative aspects. Liberal international trade may be materially beneficial to them, but its "benefits" are reduced by volatile and highly competitive exports, by lack of bargaining power in import markets, by uncertainty, and by the peculiar kind of dependence that liberal exchange always imposes on the economically weak.

Overall, however, one of the most robust of all economic theorems is that some international trade is better than none at all. Throughgoing national self-sufficiency may be a virtue in some ways, but any country which attempts it pays a huge economic price.

Robust as this theorem is, it is often superficially proved, then cavalierly applied in problems to which it has no real relevance.

The superficial proof goes like this: "Obviously, certain countries produce some things more cheaply than we do, such as textiles, and we produce some things more cheaply than they, such as aircraft. Therefore both exports and imports are beneficial. Exports provide jobs and income to U.S. labor and resource-owners; imports reduce the U.S. cost of living because they are price lower than their U.S. equivalents."

While these observations are true, they do *not* "prove" that trade is beneficial to the U.S.—any more than fears that exports raise U.S. prices and imports displace U.S. workers "prove" the case false. In fact, all the descriptive observations are usually simultaneously true. Somewhat crudely, exports can generate

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[1] Despite well-publicized import penetration by now standardized, once high-technology goods (e.g., consumer and business electronic equipment), there is no convincing empirical evidence that the U.S. is losing its comparative advantage in the *most* technologically advanced goods. U.S. exports of technology-intensive manufactures grew at an average annual rate of 28.3 percent over the years 1973–1975, faster than either Germany's or Japan's. Furthermore, the U.S. comparative advantage has been relatively unaltered even though the U.S. absolute technology advantage has clearly deteriorated. That is, even though the U.S. is losing much of its across-the-board technological leadership of the 1950's and 1960's compared to other nations it is still much more competitive in innovative, high-technology goods than in established, standardized goods. In fact, it is probable that the U.S. will retain comparative advantage and exports in high-technology goods even if sometime in the future it slips to a position of absolute technological inferiority, compared to Germany and Japan. On these points, see the "International Economic Report of the President," Washington: U.S. Government Printing Office, March 1976, pp. 117–120.

employment and upward pressure on prices; imports can "take away" employment but hold down prices. It is necessary to go beyond these superficial statements to prove that some international trade is preferable to none, and to demonstrate how trade's existence strengthens an economy.

Impossible as it sounds, trade enables every country to get more and give up less. It can increase every country's overall consumption of real goods and services without any increase in its use of resources, or it can free up resources for voluntary leisure, while still allowing a country as a whole to consume the same goods and services as it did without trade.

International trade performs this "magic" because it is completely analogous to superior technology. It allows inputs to be transformed into outputs more productively than would be possible without trade[2]—only exports are the inputs into creating physically different outputs called imports. Just as superior technology allows a country to get more for less, or something for nothing, so does trade. Nations thus choose to trade internationally out of self-interest, not altruism. The added economic strength obtained thereby is not due to the weakening of other countries either. All can gain simultaneously, just as they can from superior technology.

These insights alone, however, shed little light on the practical concerns of trade policy. They deal with comparisons of some trade to none. Two questions thus go unanswered: "Is free trade better than restricted trade?" and "Is freer trade better than the status quo?" Neither question can be answered glibly, although both free-traders and protectionists sometimes try to do so in the heat of controversy. Trade policy is like situation ethics, unfortunately for the purists at either extreme. Appropriate answers to these questions under one set of circumstances are not necessarily appropriate under another. There is no universal, timeless answer to either practical trade-policy question.

The list of circumstances under which restricted trade can conceivably make an economy stronger (and freer trade can make it weaker) is quite long. It includes exploiting national monopolistic power in export sales, or monopsonistic power in import purchases. It includes using trade policy to combat foreign monopoly, felt perhaps through predatory dumping, when superior anti-monopoly policy is unavailable or administratively more costly. It includes protecting economic sectors that possess positive production externalities (e.g., national defense, or high-technology industries with significant spillovers into the rest of the economy), when more direct, first-best production subsidies are infeasible or sufficietly costly to implement. And most importantly in current world conditions, it includes defending the staus quo when trade liberalization would lead to a sufficiently large and enduring rise in national unemployment and excess capacity—one that could not be alleviated quickly (or at all) by conventional government policies.[3]

INTERNAL DISLOCATION AND DISTRIBUTION OF INCOME

The last entry in the list is a direct consequence of downward inflexibility of prices. Economists often refer to such inflexibility as a "distortion." But it seems more appropriate to treat it as a fact of life—and not even necessarily a regrettable one, since one person's inflexibility may be another person's predictability. Most prices, including wages, rents, and interest, are contractually determined between buyers and sellers, and cannot legally be altered in the short run. The familiar result of such rigidity is short-run unemployment and excess capacity when any demand decline. Layoffs take place, assembly lines are idled, and whole plants are shut down. Both people and capital are made involuntarily unproductive. National product declines by the value of the goods that could have been produced, but were not. And overall national welfare declines further to the extent the very real subjective and psychic costs of unemployment reduce future productivity of those displaced. Problems of unemployment and excess capacity are further exacerbated by other inflexibilities—unwillingness of labor to move from job to job or place to place; unwillingness of management to move

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[2] These points are persuasively and engagingly illustrated in James C. Ingram's "Fable of Trade and Technology," *International Economic Problems*, New York: John Wiley, 1978, pp. 40–41.

[3] Given the "structural" character of much unemployment and excess capacity today, for example, it is clear even that the familiar tools of fiscal and monetary policy are sufficiently effective to rule out all opposition to trade liberalization.

from industry to industry; difficulties and costliness of restraining, retooling, and refurbishing.

In the longer run, of course, these inflexibilities moderate, and almost all prices cease to be rigid as contracts expire and are renegotiated. Yet even temporary displacement caused by trade liberalization can in some circumstances undermine its desirability, despite the indefinite recurrence of its familiar benefits, because future gains are always subjectively discounted compared to present losses. There is also some tendency in the current world setting for even long-run flexibility of prices to be less than it once was, thus lengthening the duration of any temporary displacement, and making any movement from the staus quo less desirable than it once was.

The list of ways in which freer trade might potentially be unfavorable is sometimes dismissed by U.S. economists, who doubt that it could ever convincingly over-rule their presumption that, in practice, freer trade is almost always desirable. But the grounds for their doubts and presumptions are rarely more than gut feeling. Only recently, in some of the research that my colleagues and I have been carrying out at the University of Wisconsin, have firmer foundations been provided for the usual practice. We find, for example, that the overall U.S. benefits from engaging in multilateral halving of all existing tariffs would be an extra billion dollars in real consumption—which is 200 times as large as the output lost because of increased excess capital capacity, 25 times as large as the output lost because of net dislocation of labor (export-related employment gains less import-related employment losses), and even 3 times as large as the output lost because of increased unemployment in import sensitive industries alone.[4]

Whether firmly founded or not, economists' skepticism about the practical application of the list of exceptions to the liberal-trade principle often reinforces the arguments of those who favor freer trade out of self-interest (for example, U.S. wheat farmers, aerospace companies, and retailers). And the list is frequently abused by those who favor restricted trade, and who want to wrap their self-interest in the flag of national welfare.

The abuses of the list suggest one more important entry to it. Except in ideal worlds, there are always gainers and losers from trade liberalization. To design and carry out practical mechanisms whereby every loser was duly compensated (and more) would require a frightening diversion of resources from wealth-producing to wealth-transferring activity. Yet in the absence of such mechanisms, there may be instances in which trade liberalization should be rejected because it undermines a society's sense of equity. In other words, the absence of compensation makes any reference to national economic welfare tenuous and a matter of opinion. Suppose that trade liberalization increased consumption possibilities for 99 out of every 100 individuals by two percent. For the 100th, however, it led to temporary dislocation that reduced consumption possibilities to zero (or to the basket that unemployment consumption will buy). In the aggregate, as a lump, the society's average standard of living would rise even in the very short term.[5] But a small minority of society would be made desperately worse off, and a large majority somewhat better off. The possibility must be accepted that the moderately increased satisfaction of the many could be insignificant compared to the dramatic unhappiness visited upon the few. Significant enough distributional consequences of trade liberalization could in turn weaken an economy through social malaise and unrest, and then through their indirect impacts on incentives, confidence, and certainty.[6]

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[4] Robert E. Baldwin, John H. Mutti, and J. David Richardson, "Welfare Effects on the United States of a Significant Multilateral Tariff Reduction," April 1978.

[5] If the average standard of living were 100 to start with, the new standard of living under liberalized trade would start at 100.98 $(=(.99\times102)+(.10\times0))$ in the very short run.

[6] The distributional consequences of trade liberalization are not always so dramatic, of course. People do not have to become unemployed, nor need machines be idled, for "losers" to exist. "Income displacement" will frequently take place in that wages and profits are indefinitely and frequently reduced in an industry from what they would have been otherwise, because of trade liberalization. James McCarthy's survey study of New England shoe workers, "Trade Adjustment Assistance: A Case Study of the Shoe Industry of Massachusetts" (Federal Reserve Bank of Boston, June 1975); for example, implies that even shoeworkers who remained employed from 1970 to 1973 "lost" seven percent in real terms because of import pressure, compared to wageearners in other industries on average. Such "income displacement" raises the same issues of equity and compensation that dislocation does.

This discussion also makes it clear why it is insensitive to dismiss the self-interest of either free-traders or protectionists as "self-serving" or selfish." It is simply impossible often to define any alternative "public interest" to which to recommend adherence. Besides, one person's selfishness is another person's concern for home and family. The problems of trade policy are not conflicts between pure motives and cupidity, nor between intelligence and stupidity. They are problems of resolving legitimate, well-taken differences. My opposition is justified from my point of view; your support is justified from yours. Understanding this is only the beginning of a resolution.

National politicians (and sometimes even economists), of course, resolve such differences to their own satisfaction in practice. But there can be no objective guidelines for doing so. One source becomes immediately apparent for the notorious disagreement among equally intelligent people on whether international trade liberalization is socially desirable or disastrous. Some weight severe losses for the few more heavily in national welfare than others. They feel that poor New England textile workers and Youngstown steelworkers are already victims of an ungenerous society, and will recommend foregoing large gains to avoid victimizing them further. Others feel that these same workers have largely victimized themselves, by not being willing to move and adjust when all the signals prompted them to. (Trade liberalization is rarely a surprise.)[7] There is no such thing as a "correct" position on these matters of opinion, interpretation, and subjective judgment.[8]

INTERNATIONAL DISTRIBUTION OF INCOME

Distributional conflicts and contradictory perspectives aggravate relations among nations as well as within them.

None of the insights provided in the general case for liberal international trade sheds any light on the way in which the gains from trade (or, for that matter, from advanced technology) are distributed among nations. It is comfort indeed, but cold comfort, for developing nations to suspect that although trade strengthens their economy, it strengthens the economies of developed nations far more. They are confronted constantly with the exasperating anomaly that liberal international trade may well make the rich richer relative to the poor, and thus increase international income inequality.

Exasperation is compounded by the belief that the gains from international trade are distributed among nations roughly in proportion to their market power. To the strong go most; to the weak go only what their residual veto ("we will not trade") can extract. Distribution based on market power is worse than arbitrary from the perspective of developing countries; it is inimical. It condemns them to a vicious circle of relative poverty, from which they can emerge only by chance. Their relative poverty requires national spending on the necessities of the day, on penalty of collapse. Little is left over for the accumulation of capital and technology at a faster rate than developed countries, which would enable them to close the international gap in living standards and end their relative poverty.

In this context, OPEC's 5-year-old success story is a two-edged sword. It confirms the belief of developing countries that the gains from trade are distributed arbitrarily and inimically according to market power (no oil importer ceased to trade with OPEC, so their gains from OPEC trade must not have dried up completely). And it holds out to them a model of "development without tears" based on collective political agitation to bring about the wealth transfers from rich nations that would enable poor nations to break out of the vicious circle, and begin the processes of wealth creation and rationalization of their production structure. Yet while validating their view of the world, OPEC impoverishes them

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[7] In other research being carried on at the University of Wisconsin, we have discovered that the dislocation caused by multilateral trade liberalization is disproportionately concentrated on low-wage labor groups, except for agricultural workers (the lowest-paid of all). High-wage labor groups experience less dislocation than others, and the effects of trade liberalization on middle-wage groups are mixed.

[8] For historical examples of the internal political dynamics of policy formation on international trade. see (for just two examples) : Robert E. Baldwin, "The Political Economy of Postwar U.S. Trade Policy." New York University, Graduate School of Business Administration. Center for the Study of Financial Institutions. "The Bulletin." 1976–4 ; and Raymond A. Bauer, Ithiel de Sola Pool, and Lewis Anthony Dexter, "American Business and Public Policy : The Politics of Foreign Trade," Chicago : Aldine-Atherton, 1972.

still further, heightening their demands that international income inequality be alleviated.

Pleas and proposals for a "new international economic order" fall on comparatively deaf ears in the U.S. and other developed countries. In their view, international trade does alleviate the absolute poverty of the world's developing countries. To alleviate their relative poverty more than a certain amount would be to concede too much to jealousy, however well disguised as equity. Most importantly, it would require them to sacrifice, unlike engaging in trade, where all nations can gain. They have poor enough at home; they view their prosperity primarily as a bequest of capital and technology from diligent and prudent past generations, not from arbitrary manipulation of the international terms of trade; and they see international income inequality as a red herring, diverting attention from the fundamental proposition that trade strengthens all.

The arguments on both sides of demands for a "new international economic order" bear a striking resemblance to those which divided management from labor during the early years of labor union formation and confederation.[9] Developed countries play a role analogous to managers and owners; developing countries play a role analogous to laborers and their unions. The debate in both instances is over how to divide the gains (spoils) from mutually beneficial exchange. It is also over how widely to allow those with market power to buy and sell (hire and fire) freely, without rules and procedures to protect the weak, rules which must be administratively negotiated and bureaucratically enforced. Developing countries look hopefully to the day when their proposed rules and procedures for a new international economic order will be as accepted and appreciated as those governing labor relations within developed countries today.

U.S. IMPORTS OF MANUFACTURERS FROM THE DEVELOPING WORLD: AN ILLUSTRATION

Nowhere are the trade-policy issues of dislocation and income distribution joined more heatedly than in the matter of U.S. market access for the manufactured products of developing countries. Organized labor in the U.S. understandably seeks protection against such "low-wage" imports because their impact on U.S. labor is either fewer jobs than otherwise, lower wages than otherwise, or probably both.

Yet such dislocational and distributional losses to parts of U.S. society may not be significant enough to outweigh the gains to the whole of U.S. society. Nor are they inevitable. The "assistance aspects" of trade adjustment assistance, especially under the more liberal Trade Act of 1974, compensate for at least some of the distributional losses to labor from such displacement. And "adjustment aspects" of trade adjustment assistance, while minimal under existing legislation, could reduce the overall economy's loss from enduring involuntary unemployment of people and physical capital due to increased imports. Certain proposals under current consideration to strengthen the "adjustment aspects" of U.S. trade policy should be welcomed on these grounds. "Human investment tax credits" for industries hiring workers certified to have been displaced by imports are one such proposal. Community assistance programs to aid both prospering and faltering communities in easing the voluntary movement of trade-displaced workers from one place to another is a second such proposal. Both have the virtue of not extending government economic regulation and intervention beyond where it now is: investment tax credits and community assistance programs are both familiar policy tools in other contexts. Familiar efforts to guarantee portability of fringe benefits and seniority rights across all the plants of a multi-plant firm will also have an unexpected dividend in frequently making adjustment to international trade displacement easier. Encouragement to widespread bidding for open positions within a firm has the same salutary effects on adjustment.

Simply maintaining the temporary nature of trade adjustment assistance and escape-clause relief also has favorable adjustment consequences, by setting up unmistakable signals to change. These consequences, however, buy adjustment at the expense of assistance, an example of the often-ignored tradeoff between the two aspects of "adjustment assistance" (the surest means to bring about adjustment is to provide no assistance; and assistance that compensates for every burden leaves no incentive for adjustment).

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[9] The analogy has been expanded by Jagdish N. Bhagwati in his editorial introduction to "The New International Economic Order: The North-South Debate," Cambridge, Massachusetts: Massachusetts Institute of Technology, 1977.

The payoff is extremely high to policies which ameliorate the internal dislocational and distributional impacts of manufactured imports from developing countries. Such policies win votes at home and abroad. They reduce domestic adjustment burdens, and they facilitate attainment of a chief goal of the "new international economic order": to increase developing countries' share of world industrial production from its current 8–10 percent to roughly 25 percent by the year 2000.[10] Unlike many traditional trade policies (for example, GATT-sponsored multilateral liberalization, Generalized Systems of Preferences, offshore assembly provisions of U.S. tariff legislation), imaginative adjustment policies do not aggravate one problem at the expense of another. They are capable of reducing internal dislocation and distributional shocks from international trade without frustrating developing countries in their goal of a more equitable international income distribution. Yet it is no small job to design workable and politically acceptable adjustment policies. Nor is it easy to envision how to encourage the private sector of the economy to respond more willingly to market signals. These tasks, however, become significantly easier in the absence of global stagflation. Thus to return to a theme at the beginning of this testimony, trade policy is certain to be an important indirect beneficiary of solutions to the macroeconomic problems which confront the world. This makes it all the more important that these macroeconomic problems be addressed, perhaps before any radical departure from current trade policy is entertained.

Representative LONG. Thank you, Mr. Richardson. I think that that basically goes back to what I was speaking of at the very beginning, that is the political implications, and the political necessity for working out an acceptable method for making these adjustments.

I was particularly interested, Mr. Cline, as I indicated to you previously, in what I gathered to be your feeling that the inflationary aspects of the more restrictive policies would result in enough political weight that it might offset the political weight on the other side.

That is not my feeling at all. Perhaps all of us become very parochial because we have the responsibility of representing either one State or a half million people within a particular area, and we tend to emphasize and become more associated with particular problems; consequently, that reflects itself in our actions, as it should.

But in my general conversations with Members of Congress, I have the impression that Members believe that the direct effect upon their constituencies of economic dislocation far outweighs the indirect effect of inflation. I am not at all sure that the political impact from inflation is going to be as strongly felt as the impact from economic dislocation.

Do you have any feelings on that?

Mr. CLINE. Well, I think we do have some historic experience with trade liberalization in response to inflation. If one considers the period from 1972 to 1974, when we had the highest international and domestic inflation probably on record, we removed a number of very burdensome nontariff barriers. In particular, we removed the structure of qoutas on steel in this country; we removed quotas on sugar; we removed quotas on oil before the oil price increase in the period when it was relevant; and we were essentially taking very large measures in which we were voting for keeping down inflation rather than for maintaining protection.

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[10] Increased industry is sought by developing countries to bring them closer to patterns of trade and production which many economists believe to have positive external benefits: stabilizing the terms of trade, encouraging the realization of economies of scale, enhancing the opportunity for technological advancement. In addition, developing countries see increased exports of manufactures as creating countervailing economic dependence of the developed on the developing world.

I think we have a recent example of the kind of force I am talking about in the case of meat quotas. Very recently the President liberalized the meat quotas. The reason given in the press was to help out in terms of dealing with rapidly increasing meat prices, and I think there is a strong force there that has to be reckoned with.

I think that this country at this time is running a high risk of getting back into very high inflation rates, that our system is not structured to deal with. We don't have indexing. One of the reasons people are worried about capital gains taxes is we don't have an indexing system for capital gains. We tax illusory profits caused by inflation.

It is these systemic problems caused by very high rates of inflation that leads me to believe that there will be a greater willingness to resist the individual protectionist moves by specific interest groups because of an awareness of the impact that these will have on American inflation.

Representative LONG. Mr. Stern, do you have a view on this?

Mr. STERN. Yes, my own feeling is that perhaps Mr. Cline's views are more idealistic than practical. I share your views on this rather than his. It is unfortunate, as Dave Richardson pointed out in his statement, that the direct dislocation effects that come about often are felt by specific and well-identified groups and regions.

Representative LONG. They become very real politically?

Mr. STERN. Yes, that is quite correct. Whereas the benefits to consumers are spread over the society as a whole.

So from that standpoint, the biggest problem is to try to convince those that are making political decisions as well as their constituencies of the importance of the consumer benefits that are realized from trade liberalization. The advantage of this would be to moderate or soften the protectionist movement that would come about as policies are brought to bear upon those that are more seriously affected.

Representative LONG. According to the press reports that we have had—and all of you may feel free to comment on this—the current trade negotiations have stumbled over the European and Japanese reluctance to reduce their barriers to U.S. agricultural products. Yet, Mr. Cline, if we look at your figures, a 60-percent reduction in European and Japanese restrictions on agricultural imports would only boost the U.S. exports by something like $500,000 a year.

If this is true, why would it appear that so much emphasis has been put on agriculture; and, if agriculture is not our way out of our trade deficit woods, what is?

Mr. CLINE. I think the reason that agriculture has been so important is partly the fact that there has been an over-estimated perception of how significant this liberalization would be to our exports.

I think, more importantly, it is precisely for the same kind of political reasons, Congressman Long, that you were mentioned in regard to perception of trade policy overall. I think, for example, that if we could get from the Japanese and from the Europeans some concessions in the agricultural area, that might be small in terms of dollar volumes but could be fairly conspicuous in terms of political gesture. It would go a long way toward making a package acceptable.

It is my impression that that is one of the kinds of things that we are after. We are after politically conspicuous concessions from them,

but that which are not, perhaps going to solve massive figures in terms of increased exports.

My own feeling on this subject is that we have systematically overstated the importance of agricultural nontariff barriers. In a sense there has been an interesting evolution because about a year ago my perception is that Ambassador Strauss got the negotiations moving by making a concession of sorts to hold agricultural and industrial talks separately, basically a procedural matter. That then got the Europeans willing to really start talking in serious terms.

I think it was one of the important factors in getting them to agree to a much higher tariff cut than they had originally submitted.

Now we have reached a situation where once again agriculture seems to be a major sticking point. All I hope is that we do not jeopardize the benefits from the negotiations by insisting on measures in agricultural nontariff barriers which are just not feasible for them to take and that would not be all that overpoweringly significant even in terms of our own export effects.

In terms of what the solution to our trade balance deficit is, I don't think that anyone can expect that our trade balance is going to turn around massively because of liberalization to be achieved in the Tokyo round, including agricultural nontariff barrier liberalization.

The increase in the Japanese trade balance surplus, for example, did not coincide with increased Japanese protection. On the contrary, if anything, Japanese protection was going down in this period. As I indicated, trade balance effects are neutral, as in some sense in order to get all parties to agree to liberalize.

I think the solution to our trade balance deficit lies in other areas, particularly the cyclical dephasing between our economy and the other economies. This is No. 1.

No. 2, the lag between the adjustment in exchange rates and the erosion of our competitive position which has been plaguing us for the last year but now should begin helping us, given the fact that the dollar has depreciated considerably in the last months, and there should be some improvement in our competitive position, which may have an effect as much as a year or 18 months or perhaps 2 years later on our trade balance.

Obviously the other area is dealing with our energy imports.

Representative LONG. How does this square with your feelings on this matter, Mr. Richardson?

Mr. RICHARDSON. Congressman Long, I can confirm that in our study we found almost insignificant trade balance effects from multilateral trade negotiations—just so long as they are multilateral.

But your mention of agriculture is worthwhile citing again, because were we to have multilateral trade liberalization, the result for agricultlural prices would be, if anything, higher, certainly now lower prices. That is important to mention because it gives the lie to drawing and rigid link between trade liberalization and inflation.

There is no predictable link between multilateral trade liberalization and the price level in this country. Export prices become higher when we liberalize, because other people put more pressure of demand on export goods subject to that kind of pressure, especiallv agricultural goods.

Import liberalization certainly lowers prices, but on the export side they are raised. I think it is unwise of us to try to sell trade liberalization for what it does to the inflation rate, if we are talking about multilateral trade negotiations.

Representative LONG. Consequently, you feel that the inflation argument, with respect to the effect upon the direction taken by the Congress is really of no effect at all?

Mr. RICHARDSON. I think it is a very poor argument. Mind you, I think it is a worthwhile argument to talk about the import side benefits alone from that.

Representative LONG. I understand.

Mr. RICHARDSON. Especially so because those can be sold to the voters. I have been surprised in several talks I have given to nonstudents at how sensitive people are to prices of highly selected imports that they do encounter in retail stores today.

It surprised me that they know that shoes are largely imported, that many textiles are imported. They certainly know that many automobiles are imported, and I have had some surprising comments from steelworkers who talk about how hard it is to make a buck these days and how they wish somehow that the prices of goods like that could be lowered.

Then they do draw the logical link between that and import policy. They say that there are some gains to be had from liberalization. So I think it can be sold to the voter on the import side, but not in general.

Representative LONG. Mr. Stern, do you have any comment?

Mr. STERN. The only comment that I would like to make with regard to the question that you asked about agricultural issues is that I think that the potential gains from trade liberalization in agricultural products are probably quite large, especially if one were to take into account the differences in production costs especially of temperate zone foodstuffs in the United States and Canada as compared to Western Europe.

Perhaps one of the reasons why the Brookings study got somewhat low results with respect to the estimates of liberalization may be that they didn't build into their analysis the underlying supply conditions that would be affected if liberalization were carried out.

But having said that, I woud nevertheless agree with Bill Cline that it would be unfortunate if the tariff reductions were to be held up pending some agreement on agriculture. Agriculture is something that was not covered during the Kennedy round negotiations. There was the same kind of concern then that there is now. The point is that so long as the Common Market is unwilling to make basic changes in the common agricultural policies, I don't think that there is going to be very much to be gained by holding up the negotiations until some agreement can be reached there.

It might be preferable to separate the issues until some agreement could be attained on agriculture, but as I said, I do think that there are really large potential gains that could be had here.

Representative LONG. Gentlemen, in most of the years since World War II the political bargaining that has been going on over international economic matters has been largely limited to trade and tax treaties. The advent of the annual economic summit has created an

international forum now for the discussion of what was formerly viewed as a purely domestic policy.

How do each of you view this development? Do you view it as desirable, necessary, promising, good, or bad? We might start with you, Mr. Richardson.

Mr. RICHARDSON. I think that the chief benefit from summitry on economic matters is that information is provided to policymakers on what other policymakers are doing. That enables people who form tax policy, monetary policy, and so forth, to form it much more intelligently than they could do in the dark.

By contrast, I do not think there is much of a future in cooperative international policymaking because these are intrinsically domestic matters and I don't see the decline in nationalism that would be necessary to really think of policy planning on an international basis. But I strongly support the summitry because of the information it provides.

Representative LONG. Mr. Stern.

Mr. STERN. One of the difficulties with economic summitry is that it sometimes raises expectations with regard to accomplishments that may be very difficult to achieve in practice.

I think for these kinds of meetings to be most effective it requires a great amount of technical preparation among the financial and other experts in the individual countries to the point where, once the views are exchanged among the political leaders, they rest upon solid foundation. If agreements can be made based upon the technical preparations that have been accomplished, I would think that the benefits could be achieved much more readily.

Representative LONG. Do you have any comment here, Mr. Cline?

Mr. CLINE. Just very briefly, it seems to me that there are economic benefits to be achieved. Clearly when we have problems of cyclical maladjustment between the various economies, we have an interdependent situation, and reducing the trade balance surpluses of some member countries clearly depends on resolving those differences through measures such as more harmonized growth rates.

I do think, however, there are political dangers to the process in that it raises the stakes from a technical level to that of a national confrontation, where one country is viewed internationally as not cooperating with other countries. So summitry is a double-edged sword. It is a risky kind of strategy.

I think we have to judge after a certain period of time whether the economic benefits we are getting out of the summit process warrant some of the political confrontations that come out of it.

Representative LONG. Speaking again in the agricultural policy area, it seems to me that it was in the Kennedy round that the EEC kept saying that they had just been formed and if we would wait a few more years until the next round, that they would be much more forthcoming with respect to the ability to discuss this aspect of it, and the next round is now with us and they really haven't been very forthcoming at all. This is just as a side comment.

Going back to this question of the trade deficit, what is your view, gentlemen, of the extent to which our trade deficit is due to the slower than usual growth in Europe, in Japan, and in some of the developing industrialized countries?

Going a step further, by applying the U.S. growth rate to the Canadian and European economies, the Congressional Budget Office came up with some figures that estimated that U.S. exports could have been many billions of dollars higher.

Are the lower than usual growth rates in Europe and elsewhere, the ones that we were discussing, merely cyclical in nature or are they really reflective of a structural change to permanently lower rates of growth?

Mr. Richardson.

Mr. RICHARDSON. I would not want to call them merely cyclical in nature, but cyclicality is a great part of the very large trade deficit that we have had. Most people who do quantitative work on these matters find that the responsivenes of both exports and imports to cyclical conditions is very high. That for the United States is due in great part to the large proportion of capital goods and intermediate products in both our exports and our imports, which tend to be even more cyclical than the average business cycle itself.

So you find that there is even more ups and downs in exports and imports than there is in general economic activity. However, there are other things going on that are equally important, although I cannot quantitatively break it down.

Bill Cline's reference to the lagged response of trade to exchange rate changes is an important one that I would second.

Then, third, I might mention that for the next few years and for the last few years it is to be expected that the United States has some trade deficit that is not to be shunned. It arises largely because of the demands throughout the world for American financial assets, on the part of OPEC, official holders of those financial assets, and private holders worldwide.

We still command the most liquid capital markets anywhere, and there is some expectation that we will be an absorber of liquid funds from the rest of the world. Under floating exchange rates the only way we can absorb these is by running a trade deficit.

It is nothing we should shun, because it enables us to have a higher national consumption level for any given level of GNP, all in exchange for providing financial intermediation services to the rest of the world.

Representative LONG. Do either of you other gentlemen have any comment with respect to this?

Mr. STERN. Yes. I, too, believe that a great part of the explanation of trade deficit lies in the differences in cyclical phasing between the United States and the other major industrialized countries.

By the same token, it is important to understand why it is that particularly in Japan and West Germany policies have been followed now for several years which have kept their rates of economic growth much lower than they were historically. I think the explanation here is really very simple, one that we are all familiar with; namely, that the West Germans and the Japanese are preoccupied with controlling inflation.

So long as that continues to be the case, then we are going to see rates of growth which will be lower than they were and perhaps lower than they might need be. So I have always felt that it was cor-

rect on the part of the United States to try to induce the Germans and Japanese to increase their rates of expenditure and thus their rates of growths.

A related point is that this growth issue has often been discussed at previous economic summits.

I think there is a very real problem that was created by this where national governments sometimes agreed to change their rates of economic growth without really having the capabilities of doing so in the short run. I am referring here particularly to the Japanese where some statements were made that a certain rate of growth would be achieved which would then, in turn, reduce the trade surplus. It turned out that all of the evidence that was available in Japan based upon the various econometric studies that existed simply pointed out that what the Japanese Government had promised could not be attained in the time period involved.

So that points up a very real danger of putting political pressures on other countries and getting them to agree and then they can't produce.

Representative LONG. That is an interesting point, Mr. Stern. But if you look at the upcoming summit you find that we want the Germans to increase their productivity and to increase their growth faster than they have been willing to do; the Germans, of course, properly fear inflation; in turn, however, the Germans want France and the United Kingdom to reduce trade barriers; then, on the other hand, everyone else really wants the United States to establish an effective national oil policy, and, at the same time, to slow down inflation.

So the goals are fairly straightforward. Doesn't the stating of these goals, while it does lead in some instances to unfulfilled expectations, serve a purpose by letting everybody know what everybody else is looking for?

Mr. STERN. Yes; I think it does definitely serve that purpose, although the purpose is also served at lower levels in the OECD and other meetings that are held periodically. Other important countries are very much aware as we are of their policies at these meetings where information is exchanged and targets are discussed and so forth.

So the summitry is then just a way of dramatizing the thing at a much higher level.

Representative LONG. Mr. Cline.

Mr. CLINE. Mr. Long, in connection with the question of whether a lower growth rate is permanent or temporary, I would like to refer to the problem that Professor Stern mentioned, that of inflation. It seems to me we not only suffer from low growth policies while attempting to fight inflation, but we also have other effects of inflation that restrain growth.

In particular, inflation causes uncertainty about investments and tends to restrain the level of capital investment, and capital investment has been very low here and abroad.

I do think there is a relationship to trade policy, and here I am afraid I would take issue with Professor Richardson. I would agree that theory permits the kinds of conclusions he had in his general exposition as well as in his comments on inflation, but in both cases it

seems to me that practical considerations point in the direction of opposite conclusions that may be valid theoretically.

The fact of the matter is that the empirical studies on the supply elasticities of products and of exports find those supply elasticities to be very high. Mr. Richardson's rejection of the anti-inflation argument rests on the assumption that the elasticities of supply are low, and that when foreigners demand more of our goods, we don't have enough to sell so that increased exports just raise our prices.

Now we can think in terms of agriculture which is specifically cited. At a time when we are retiring land from production it is a little difficult to make the case that increased foreign demand would suddenly push prices extremely high.

In terms of the overall macroeconomic status of the economy, both here and abroad, at a time when unemployment is high and there is excess capacity in plant, it is a little hard to argue that increased exports would cause large price increases.

So I do think it is important to link the trade situation with the inflation problem and to see what relief we can get from inflation through trade liberalization.

Representative LONG. I tend to share the view that the relationship is worth a thorough investigation. I am not sure exactly what side I fall on with respect to this discussion, but I do think it is worth examining.

Another point, Mr. Richardson—and I am going back to the political aspect of this whole problem, in addition to the economic situation; you cited three reasons why more liberal trade policies may not be as advantageous as they were in the years past.

Might not there also be a fourth? That is, the perception and in some instances the reality, of becoming a hostage to the political and economic interests of other nations.

Can we afford, for example, as a matter of domestic security—national security—to do without a basic metals industry for using steel as a classic example? Are we not endangering national security by failing to protect a basic metals industry?

Mr. RICHARDSON. I, as do a great many economists, say that trade policy is the wrong tool to use if you had your druthers, to assure a national defense and a national security basis. There are other policies that are even better than trade policy, and we have a way of showing that; namely, production subsidies, or governmental production of certain goods.

We know that there are political objections in practice, however, and hence those may not be politically feasible policies. When you tell us that, then we are prepared to say that national security and national defense are reasons for maintaining trade barriers to assure at least some level of basic metals industries, armaments production, food production—things like that—as a second-best way of accomplishing those things.

However, the hostage argument is an incomplete argument if you want to use it to favor protectionism. It cuts both ways. Liberal trade does make us to some extent a hostage to foreign producers, but it turns us into a kidnapper of foreign industries, too.

Representative LONG. That's right; of course.

Mr. RICHARDSON. We can make them hostages. To that extent you have to balance these hostage-making effects. We could end up to be a winner from more liberal trade because we can make more of them hostages than they can make us. We could be a loser.

In any case, the national security argument, the national defense argument, are acceptable as a second-best way of getting what you want through trade policy.

Representative LONG. I must say I am inclined to agree with you, but what you consider the first-best way is probably not politically acceptable.

Mr. RICHARDSON. That is right for explicit production subsidies. But take steel as an example. If it is the Congress desire to maintain, say, a certain minimal steel production, or other basic metals production in this country, then there are other things to be done that could assure that other than imposing or sanctioning reference prices and other trade barriers any more than we have. There are other programs in relation to the steel industry, such as for modernization and technical assistance. These are other things that can be done that are perfectly feasible and they do not penalize users of steel in this country in the way that quotas and tariffs do.

Representative LONG. To follow up on that, if you look at what happened in Great Britain—and I am treating with something I am not completely familiar with—if you look at what happened in Great Britain recently when they started the subsidization of the industries that were experiencing very, very severe import pressures, this began to bring very serious objections from the other trading partners, saying that this was an unfair trading practice in itself. How do you see that?

Mr. RICHARDSON. It is no more unfair than is leveling a quota an unfair trading practice. Hence, you will get the same objections regardless of how you attempt to bail out your own steel industry.

Representative LONG. What if you carry that to the next step, the corporate tax incentive?

Mr. RICHARDSON. What is wrong with the corporate tax incentive?

Representative LONG. No, that is not the question. How is it viewed as an unfair trade practice?

Mr. RICHARDSON. It is an unfair trade practice. You can carry it to that extreme. Any policy that you levy to assist a given sector of the economy has impacts on international trade that in some cases can injure a foreign country.

I have no objection to carrying things to that extreme, although it becomes bureaucratically cumbersome to have countervailing duties against, say, everything, every single policy that you could come up with.

But in principle you can carry it to that extreme.

Representative LONG. Mr. Stern, do you have any comment?

Mr. STERN. With respect to the issue of national security I am not clear these days about exactly how national security should be defined, particularly in a time where nuclear warfare, if it were carried out, would be disastrous for all parties involved.

Representative LONG. But also when a country as powerful as ours is dependent upon other resources—such as oil, foreign sources of oil—for 40 percent of its needs.

Mr. STERN. I would then want to think of national security more in terms of having access to supplies, particularly of oil and other kinds of important materials, that are absolutely basic to the production process in the United States.

Here there are various policies that are already being carried out that are much superior to international trade policies, as Dave Richardson pointed out. Perhaps the most obvious one here is stockpiling in order to build up the availability of inventories in case there were another embargo or if there were any kind of natural disaster that would limit the supply and availability of various kinds of raw materials.

Representative LONG. They are filling all the salt dunes in Louisiana with oil.

Mr. STERN. Yes.

Representative LONG. You know, it seems like we always make a full circle. We took it out of the ground. Now we are putting it back in again.

Mr. Cline.

Mr. CLINE. I would agree with what has been said before. Certainly the industries where we are hearing complaints about imports, such as shoes and textiles, are not exactly national security industries. I suppose we need uniforms. But basically these problems are not security problems.

In steel, I think certainly with the degree of import penetration we have had, we are not talking about the entire elimination of an industry. Steel is not comparable to a case such as black and white television sets where we simply do not have significant domestic production anymore.

So I don't think we have a security problem in those trade areas. I think you indicated, sir, the key area, and that is energy. On energy, it seems to me that we are not doing enough, because we are maintaining a large price differential favoring consumers here in comparison with the world price. Perhaps in the tradeoff between distributional questions and the question of incentive to produce domestic oil, we might want to ask again whether we must come down so heavily in favor of the distributional issue in prohibiting the passthrough of higher prices to the oil producers.

But I think it is primarily the energy area where we have a national security issue.

Representative LONG. Evidently the administration, gentlemen, is committed to a fairly firm policy of finding jobs for young people and members of minority groups. I wonder if sometimes our international posture runs counter to our need to alleviate unemployment. What would you economists call it? The structurally unemployed. I guess that is the best term.

For instance, might not a successful completion of the multilateral trade negotiations lead to a further reduction in the number of these low-skilled people, the entry-level-type jobs that usually are open, at least the most open, to both young people and to the minority groups?

What would the effect on that be as we go into it, looking at our international posture and the effect upon those particular groups?

Among the young black males, the data indicate as much as 40 percent unemployment.

How does the international posture that we take affect this very real problem that we have at home of the structurally unemployed? Who would like to comment on that?

Mr. RICHARDSON. I would really rather not comment because I don't have a good answer. I can't think of any way in which the effects would be significant. That is because, as I understand the groups you are concerned about, they are urban and young workers who are not in areas of the country which, to my knowledge, produce disproportionately large amounts of tradable products.

Since they don't produce tradable products disproportionately, as a rule they don't stand to gain directly from multilateral trade negotiations—or to lose for that matter.

Representative LONG. Mr. Cline.

Mr. CLINE. I think the basic point is that we expect, if anything, more jobs to be created by liberalization for exports than would be lost to imports. I think there can be some structural adjustment problems.

The textile and apparel sectors appear to have a large number of workers who are black, and from rural areas. Often the worker is the wife, and the family might be unable to move in search of a new job if the wife loses her employment.

And so I believe there can be instances of structural problems. But I think the point here is that the benefits to the economy overall are so large relative to these adjustment costs that we can afford to have very comprehensive schemes of adjustment assistance, including training programs to take care of this problem.

Again, the figure we come up with is that the benefits, which include some dynamic benefits, economies of scale, and increased investment that are often omitted from the more standard calculations of benefits, these benefits are something like 80 times the size of the costs to workers from adjustment. That figure is based on past experience of the number of weeks that trade-impacted workers are unemployed, and multiplying by the average industrial wage.

So I think the point is that we should be aware of the possibility of some of these structural adjustment problems, but we should be prepared to address them in the knowledge that the benefit to the overall economy is so much larger that we should not abstain from trade liberalization because of these possible adjustment problems.

Representative LONG. Which brings me to another question which I meant to ask a while ago, skipping you for a moment, if I may, Mr. Stern. I would like you to comment upon the apparent disparity of the views, with respect to the possible effects of the free trade policy, between the study made by Brookings and the work done at the University of Wisconsin. Perhaps you would like to comment first, Mr. Cline, because Mr. Richardson spoke last on this particular point.

Mr. CLINE. Well, I think perhaps the important point to make here is that we are not in disagreement on the bottom line.

Representative LONG. But you are in substantial disagreement with respect to the figures themselves as I understand it.

Mr. CLINE. I think the figures themselves have the following differences:

One, it is my impression that the Wisconsin study is using 1971 dollars, which look lower than the 1974 dollars simply because of inflation. These kinds of simple data base differences can occur.

Two, in terms of the benefit estimates, our estimates do attempt—although there is no universally accepted method of doing this in the economics profession—to bring in some dynamic effects that everybody agrees exist, but no one has a terribly well-accepted method of quantifying: The benefits from increased economies of scale and of stimulus to investment.

My impression is that the Wisconsin study measure of benefits is focusing on the traditional welfare benefits which are so-called static benefits, and that they have not quantified the dynamic benefits.

In addition, we have looked at the present discounted value of these economic benefits. If one chooses to look at it this way, one obtains a large once-and-for-all figure for the total benefit. This figure is of course, much larger than the benefit for only 1 year.

All this being said, I would point out that the Wisconsin study does come to the same basic policy conclusions. Robert Baldwin, the coauthor, and I participated in a seminar held by the Labor Department more than a year ago and the general thrust of both studies was very much the same kind of conclusion: That there are only minor job dislocations, and that, even as Professor Richardson was citing, the benefits are extremely large relative to job dislocations.

Representative LONG. Do you have any comment, Professor Richardson?

Mr. RICHARDSON. I think it is fair to support Bill Cline in what he says. He has elaborated the differences well. The key one is the attempt of the Brookings study to take the dynamic effects into account.

One minor one that he failed to mention was that we engage in different tariff-cutting exercises. Ours is a 50 percent linear cut, his is the Swiss formula cut. That would be minor, and otherwise he has nailed down the differences well, and I agree with him.

The bottom line is the same, although when I speak about it, I tend to be more attentive to the possibility of offsets being large.

Representative LONG. As I said earlier, it was frankly surprising to me that the differences are no greater, in the end result. From our point of view, it would have appeared that economic dislocation is a larger problem. Maybe it is the squeaking wheel getting the grease that makes it so apparent to us.

But I think you are going to find among the political figures of the country a little bit different perception as to what the effect of it might be, than the one expressed here and one more in keeping with my own, unless I am seriously mistaken.

It is not that I am necessarily happy about this. I don't mean to indicate that I am, because I am not. It is really very encouraging news to me.

Mr. RICHARDSON. May I respond briefly?

Representative LONG. Sure.

Mr. RICHARDSON. I think you get quite a bit of heat because you are besieged by constituents who, if displaced by trade, view it as

something permanent. It is very hard for you to explain to them that chances are good within a year that they will be in a new job situation, and although they won't be happy initially, 5 years from now chances are good that they will be as happy as they ever were.

Our calculations in both Bill Cline's work and our own are based on the temporary nature of the unemployment produced by trade liberalization. If it were to be permanent, it would be a very different bottom line.

Representative LONG. It is awfully difficult to tell a horse collar manufacturer that he is going to be making automobiles in 3 years. [Laughter.]

Mr. RICHARDSON. There are other things.

Representative LONG. Senator Roth.

Senator ROTH. Gentlemen, I am sorry that I have not been here since 10 o'clock, but unfortunately, as always is the case, we have two hearings at the same time.

Mr. Cline, I read with great interest the Brookings study on trade. On the Subcommittee on Trade, in fact as ranking member on the Finance Committee, I would like to ask three or four questions in that area which may—if it does, I apologize—cover ground that already has been covered.

But as you are well aware, the implementing legislation as far as monetary barriers will probably be coming before the Congress sometime in January next year, assuming that an agreement is reached.

Apparently, I gather, that the 1978 trade statistics will come in roughly at the same time, which probably will show another horrendous trade deficit. For example, it is estimated that the Japanese deficit will increase from something like $9 to $12 billion.

In any event this is not going to be a very favorable climate in which to talk about trade liberalization. I wonder what you think we might seek from the Japanese or from anybody else so far as that is concerned, in the short run, to try to improve these figures.

Is there anything that can be done?

Mr. CLINE. Senator Roth, I believe that the trade negotiations are not really the solution to our trade deficit problem. While I think it is true that the Japanese can make additional concessions and that there might be some possibility for agricultural concessions, although, that is terribly difficult politically, the answers to our problems on trade deficit lie in other areas. They lie in the areas of our exchange rate and our competitiveness, the growth rates in Europe and Japan compared with our growth rate; and in dealing with our energy problem.

I agree that it is unfortunate that the time at which the U.S. Congress will be considering these negotiations happens to be the time when we have a large trade deficit.

Senator ROTH. Let me pinpoint it a little more.

I am not talking about the long-range solutions.

Mr. CLINE. Right.

Senator ROTH. I would like to get to those in a minute, but let me just quote what Lloyd Bentsen, the Senator from Texas, said publicly when we had this meeting a week or so ago, when Ushiba was here and all the chief negotiators were here.

He said very bluntly that if there is a great increase in the trade imbalance between Japan and ourselves, come January that there are going to be efforts made to close off our markets. He said, "I will be there to lead it."

So what I am saying, what is strictly within the boundaries of the current negotiations or without the negotiations in Geneva, is there anything that can be done? I think that Senator Bentsen very accurately reflects the mood of Congress.

Mr. CLINE. My impression, sir, is that the problem here is that it takes time for the exchange rate movement to have an effect on trade. We have seen a very massive change in the exchange rates of the yen and the dollar and it may take 1 or 2 years for that change to make itself felt on the Japanese trade balance surplus.

And I guess what I am talking about is that it will require a great deal of statesmanship on our part to realize that we are making——

Senator ROTH. Well, I hear you, but there are many people that think that the Japanese in particular should take some specific steps to improve the situation.

I am a great admirer of the Japanese, it is an amazing story of economic success. At the same time we are, of course, told from time to time when it comes to agricultural products that they cannot buy them because of the political situation.

Now that is not a question of statesmanship. I think the fact is that the problem many people here are having is access to their markets and other markets. The Europeans don't want to talk about that.

I think the problem is the American Congress is always told to be statesmen in this area and the long-range situation will work itself out.

What I am saying is that come January when these agreements—as you may or may not know, I support, one of the first to support these negotiations—but the fact is that if there is a serious deterioration in this impasse, I think it is going to raise serious questions as to whether the agreements will be ratified.

What I am suggesting is that as far as the Japanese are concerned, it seems to me that they have to take a pretty tough look at their own practices and, as I have told them, it is no harder for them to go to their farmers—and I understand their political situation—but it is difficult for our Members of Congress, who are facing reelection, and also the Senators, to go back and talk to their constituents who see the steelmills closing down, or whatever it may be.

So I for one think the Japanese and the others have to look at the short-range as well as the long-range corrections that can be made.

It has also concerned me that in the Tokyo round we have in no way dealt with border taxes, so-called rebate of indirect taxes. I was over in Europe recently and discussed this with some of those in the EEC.

What kind of an advantage do you regard this to our European competitors? Is there any way of measuring it?

Some people have tried to suggest that one way out of the dilemma is to agree that we will discuss it after the close of these negotiations, but that doesn't seem to me to leave us much bargaining leverage.

If you say that it is of no concern, then why is it the Europeans won't even discuss it? Or why won't they agree that our taxes be treated similarly? I wonder what comments each of you gentlemen would care to make on that.

Mr. STERN. Well, if I can make a brief comment, I think that border taxes do not confer any distinct advantages on European exporters, mainly because they are part of a method of taxation which tries to tax products at the source of consumption and exempts them if they are exported. So from that standpoint, unless the border tax is changed specifically with the end in mind of stimulating exports or reducing imports, it is not going to confer any unusual benefits to Europeans.

As far as the American corporate income tax is concerned, I don't think that it confers any particular disadvantages on American producers. From all of the studies that have been made, it doesn't seem to be the case that the corporate income tax is passed on in the form of higher prices.

So my own view is that it is really a nonissue, and I think I would side in this respect with the European position. There are other more important questions that should be addressed like agriculture and various other things. Border taxes are not really very important.

Senator ROTH. Does anyone disagree with that?

Mr. RICHARDSON. I won't disagree, Senator Roth, but I might add a couple of other things. Were you to change the border tax treatment, you would have exchange rate effects that would offset those changes to some extent and, hence, they would not have nearly the effect on trade that you were expecting.

Second, I think the European objection to changing the status quo is that the status quo is sanctioned by the GATT right now. From a political standpoint the Europeans are not interested in leaving border tax adjustments to the side even if they were useless for stimulating trade, because they would like politically to get some kind of concessions from us in return for their removing them.

Senator ROTH. Basically they have refused to even discuss them and I would just point out—and I am no economist— but like on so many of these issues, there are differing points of view. In the days of President Johnson's administration a determined effort was made at that time to modify. They took a position directly opposite.

In any event, I think maybe the latter point you make has some merit. They may want something to offset. It is interesting to me they would not even discuss it.

If what you are saying is that essentially it is awash, it seems strange to me that they have been so adamant in this area. I must confess that in this round our instruction was that this was to be a matter of negotiation.

There had been some suggestions that instead of having these major negotiations every 10 or 15 years, maybe we ought to move to some sort of more permanent means of having ongoing discussions and negotiations, especially with respect to nontariff barriers.

How much progress is going to be made in the current round remains to be seen, but even if one were optimistic, I would guesstimate that we are just going to touch the top of the iceberg.

Do you think there ought to be some continuing type of negotiating authority, especially in the area of NTB or economic affairs?

Mr. CLINE. I think it makes a lot of sense to establish that kind of an authority, partly because we have brought tariffs down in the Kennedy round and, if we are successful, in this round, to much lower levels. Therefore, we have pretty much exhausted the potential of the traditional type of trade negotiations, where representatives get together, make tariff offers, reach a final conclusion and then go home. That type of negotiation is really not so relevant for our future in this area. It seems to me what will be more relevant is an evolutionary process of trying to apply in practice the necessarily vague codes on nontariff barriers which are likely to come out of the negotiations, and trying to improve those codes as we see exactly what our experience is.

In order to have the flexibility to do that, it seems to me that it does make a lot of sense to move to a mode of negotiation which has some provision for ongoing consultation and revision in the codes.

Senator ROTH. Anyone else?

Mr. STERN. The only point that I would add to what Bill Cline said is if it were followed through, I think it would change the nature of the trade legislation that we have typically followed under the periodic renewal of the negotiating authority that the administration has had.

So if some permanent type arrangements were set up, I think that that would, in turn, require that the Congress change the nature of the authority so that it would not have to be renewed periodically every few years.

Senator ROTH. Well, I don't think Congress would delegate that authority, nor do I think it should, if I may say so. I think it is an area where we have special responsibility, but I think there is some merit if we are really going to move ahead in a meaningful way on the nontariff barrier area.

Congressman Long, I will close with this. I was in Germany recently and as you probably know, the vast majority of trade policy is implemented in the Economic Ministry under Count Lanzdorff.

We have MITI in Japan. Here we have a special trade representative conducting negotiations, which is more or less a temporary office. We have the Treasury responsible for protection as well as ITC. We have promotion in Commerce, statistics done by ITC and Commerce, probably a couple dozen agencies are involved in this.

I have proposed that we combine many of these functions in a new Department of International Trade. I don't know whether any of you are familiar with this legislation.

If you are or would care to comment generally, I would appreciate your comments.

Mr. CLINE. One of the things I always wonder about in terms of structural organizations is how one gets away from two things. The first is the continuing basic power of some of the traditionally strong economic agencies, such as the Treasury Department.

The same kind of question comes up, for example, in foreign aid. We have had the Humphrey bill which would restructure foreign aid, and some people would propose to have a totally separate department for foreign aid.

The same consideration arises. On the major economic issues, it is very difficult to get away from the ongoing power that resides in the key agencies. That is the first point.

The second point is that personalities invariably affect the relative bargaining strength of the different agencies. For this reason, relative strength shifts from 1 year to the next. So my reaction is to wonder whether one really can change the locus of economic policymaking power on international trade.

Now we have tried coordinating committees before, in the Council on International Economic Policy that has now been abolished.

I am just not convinced that creating a separate department would change things that much. One wonders whether the new department could have the kind of clout that would really be needed to make the final decisions.

Senator ROTH. Well, just a comment. One, of course general monetary policy and economic policy we would not attempt to take away from the State Department or Treasury Department. But one of my concerns is that this country—I think both in the Government as well as in business itself—has not been export oriented. There has been no real effort to promote the export of American-manufactured products abroad.

American industry, generally speaking, if they have some surplus that they cannot sell in the American market, may seek a market outside. But in contrast, the Japanese and the Europeans develop products for the American market.

I think we are going to see in the years ahead a large market developing.

Representative BROWN of Ohio. Is that wishful thinking or——

Senator ROTH. Not for us necessarily, but I think you see in Southeast Asia around the rim of Asia new markets developing there.

Representative BROWN of Ohio. The markets are there, but are you suggesting we will get in them?

Senator ROTH. The point is that I think the future growth and development will be in much of the underdeveloped world and that we ought to put ourselves in the posture where we can better export American-made products to those markets, more so than we have in the past.

I don't care where you go. I am sure you will agree with this, that you see the Japanese as well as MITI very much involved. They are looking down the road 10 or 15 years as to what Japan is going to sell.

We don't have any of that here. I think we could change; both American business and American Government have to change their attitude about sales abroad. We have to become more aggressive in seeking the sale of American-made products abroad. That is one thing, I think that kind of legislation might help.

Representative BROWN of Ohio. Can I comment on your comment?

Senator ROTH. Sure.

Representative BROWN of Ohio. Only this: Those markets on the periphery of the Pacific in Asia and South America have been expanding for the last several years and the Japanese are in them and we are not.

Senator ROTH. That is exactly what I am saying.

Representative BROWN of Ohio. Yes; but I don't see any reason, in our current policies, to hope that we are going to get in them any more aggressively than we have because, first, we have to be com-

petitive and we are not at this point in that competitive frame of reference. Unless we make some changes in our own society, we are not going to be in those markets.

Would you agree or disagree?

Mr. STERN. I would agree. But I am not sure that restructuring in itself would cause any significant change whereby American manufactures would compete more effectively. The markets are there, they are changing and expanding all the time.

The Germans, Japanese, and others simply do a much better job than many of the American companies are doing. So it is a question of——

Representative BROWN of Ohio. The key question is why? I think that is what Senator Roth is getting at. They have an aggressive national and entrepreneurial policy for that expansion and we apparently do not. We say we do, but really we don't.

Mr. STERN. I think the Japanese and Germans and other companies involved essentially specialize in production for export. It has been a longstanding tradition, especially in the Japanese economy, to produce for the export market and to tailor your products and your marketing to the markets in question.

American companies have, by contrast, mostly concerned themselves with selling at home and it has taken them a great deal of time, it seems to me, to develop methods and techniques that will allow them to compete effectively overseas.

Representative BROWN of Ohio. To pursue his point, how do we build on that great base of home market which we have—the wealthiest economy in the world—how do we use that to our advantage to expand our foreign trade? It seems to me that the Japanese and Germans have gone somewhat in the other direction.

They have always started out enhancing their domestic wealth with their foreign trade, and as a result now they are doing well relatively in terms of their living standards, real wages and so forth—better than we.

How do we enhance our ability to build on that domestic base and go from there?

Mr. STERN. Well, that is a difficult question to answer.

Representative BROWN of Ohio. That is what the whole hearing is about, isn't it?

Mr. STERN. Well, it has been about other things, too. The reason it is difficult to answer is that the kinds of issues you are raising are ones that are built into the profit incentives that different companies face. Maybe what we are saying is that American producers are not responding as effectively to these incentives as producers overseas.

Representative BROWN of Ohio. Part of our problem may be domestic. Is that what you are saying?

Mr. STERN. Part of our problem may be that.

Representative BROWN of Ohio. Our own taxing system, our own incentives, our——

Mr. STERN. I would say there are really more incentives at the company level in many cases rather than things that are being carried out in terms of Government policies.

Representative BROWN of Ohio. It certainly isn't because we are isolationist as a philosophy. We have not been that since the beginning of World War II. The Japanese jolted us into World War II.

So we are not isolationists as a matter of national proclivity, it would seem to me, what with the great foreign aid systems we have put together. It must be something about our domestic approaches that are different from the Japanese and Germans that don't provide the incentive or perhaps, more precisely, provide disincentives for us to get into those fields.

For instance, the German savings rate is three times ours. Does that have any impact on our foreign trade?

Mr. STERN. If you use the savings rate as it affects the production rate in Germany in terms of increasing their competitiveness, that would certainly add to it.

But I don't think that American companies, to the extent that these opportunities exist, are always necessarily taking the greatest advantage of them.

Representative BROWN of Ohio. I guess my question was down to a psychological question in a way. Are we right to be paranoid about all of the trade disadvantages that we suspect are built into our international competitors' systems, subsidization of their industry, restrictions against our products, so forth and so on?

We tend to be paranoid about that because we are a big economy and we think that they are doing something to keep us out. Is that true?

Or is it something we should be looking to; should we look more to ourselves and the problems with our system that have seen us grow increasingly noncompetitive?

Do you understand my question?

Mr. STERN. Yes.

Representative BROWN of Ohio. All right.

Mr. STERN. Maybe I should quit talking.

Representative BROWN of Ohio. Anybody can play. I would be glad to get Mr. Richardson's ideas and Mr. Cline's.

Mr. RICHARDSON. I am somewhat puzzled with the vehemence with which you state your case.

Representative BROWN of Ohio. That is just the way I talk. [Laughter.] It isn't a case. I am asking the questions.

Mr. RICHARDSON. My impression has been that American exporters never turned down a good opportunity and that we are no more reluctant to export than other countries are, and that the cases you cite are not always cases where the Government has a strong role in exporting. Japan certainly, but not Germany.

Representative BROWN of Ohio. I want to translate that this way: We never turn down a good opportunity. If somebody wants to buy from us, we will sell. But I am under the impression that the great businesses in this country went out and hustled. I come from an area where National Cash Register, for instance, was founded on salesmanship. We went out and hustled, really sold our products and made a better mousetrap and then we would beat the path to the world's door and shove the mousetrap down their throats.

Mr. RICHARDSON. As an economist I believe that our companies, NCR among them, have beaten a path to other people's doors quite dramatically in the 20th century; have we not?

Representative BROWN of Ohio. Yet with these problems, and investors in NCR today would agree, has there not been some subtle change in the status of NCR in the world in the last few years?

Do you understand what I am saying?

Mr. RICHARDSON. Uh-huh.

Representative BROWN of Ohio. I think NCR has not exactly kept up competitively. My question is, is that because of decay in management of NCR or is it something that has happened within our system in this country in the last few years that has given us not quite the same aggressive ability that we once had?

Mr. RICHARDSON. I have no answer. I don't see us being any less aggressive than we have been before. I don't see the policy that——

Representative BROWN of Ohio. Let me cite you a statement made by a significant personality in the Department of Energy the other day before the Science and Technology Committee as to whether or not we would be adversely affected if we did not go ahead and develop a fast breeder reactor.

His comment was, if we don't do that, we can always buy one from the French. This seems to me sort of an acceptance of second place in that technology just as we accepted, through actions of the Congress, second place in aircraft development when we decided to opt against the SST and let the French and British go ahead and develop it.

Mr. CLINE. I think there are a number of factors that are behind our export performance in the last few years. I think we may be overstating the role or lack of effort on the part of American firms. We have a number of other changes, in particular the fact that the dollar was becoming somewhat overvalued in the period 1975–77. Now we are going to have a turnaround of that and we should be seeing the effects in our export performance over the next year or two.

We have nationwide developments on productivity growth which are somewhat disturbing. These get built into our underlying competitiveness. They are probably more the result of macroeconomic considerations such as the level of our employment, and the rate of inflation, than they are attributable to any particular competitive effort.

We do have institutions with which we try to spur competitive effort. We have the Export-Import Bank which has been active and is probably going to be increasingly active. We have DISC, which is another spur and, if anything, many would argue that it is an undue incentive to exports.

Some people cite the change in the tax status of Americans living abroad as a disadvantage to American exports; it makes it more difficult for American firms to put personnel abroad, makes it more costly for them.

In addition, we have the whole macroeconomic situation. When the U.S. economy is buoyant and the rest of the world is more stagnant, then it is easier to meet demand at home. It is simple to

sell the goods to the domestic market, which is taking up the most of the supply without the need to resort, therefore, to export markets.

So I think we have a number of factors that all lead to an export performance that is not what we would like to see, but I am not sure that the solution is somehow to try to turn around the mentality of the American exporter and try to make him more competitive.

I do have the impression that the case of Japan requires some special effort. One gets the impression that the very distribution system in Japan hinders U.S. exports, even though the distribution system is not necessarily a protective structure. A typical pattern seems to be that American exporters rely on low volume and high profits, in a form of monopoly strategy, and that they do not expect to sell too much.

They sell to a luxury market probably. These kinds of institutional factors, I think, are perhaps important especially in Japan. But they do not really constitute protection.

I do not think that one can make the case very convincingly, although many people assume that it is true, that Japanese protection is much, much higher than ours. So in short, while I am sympathetic to concern about how hard American firms are trying to export, I do think there are many other factors working against their exports.

Representative BROWN of Ohio. Please don't misunderstand my comment. It isn't just that. One of the factors has to be that the Japanese, even when they go on strike, they stand out in front and sing the company song before they punch in. That is a labor factor.

That raises the question about the Germans' savings rate, which would seem to be a factor in encouraging investment in plant modernization and therefore national productivity: If they are saving more, certainly that encourages productivity.

We save less and maybe we don't encourage it.

Our steel industry would seem to be an example of our inability to make timely investments to keep up with the competitive nature of some oversea productive capacity.

Let me ask you a couple of specific questions. What are the prospects for proposed European monetary integration, and what would be the impact of this integration of the monetary system on us, plus or minus?

Mr. RICHARDSON. The prospects look brighter than they did a short while ago for European monetary integration. The French and the Germans have at least made some agreements to commit themselves to such in the near future.

I think that the effects of that on us would be negative if it were to come about. I don't think it will. I think they are likely to be as unsuccessful as they have been since the first snake-in-the-tunnel agreement. But were they to form a European monetary bloc that would be as strong as the deutsche mark is strong, you would have a competing asset, a competing set of capital markets that would rival the American capital market as a source for world financial investment.

Representative BROWN of Ohio. Is that good news or bad news for us?

Mr. RICHARDSON. That is bad news for us in that we are presently very much the monopolistic provider of banking services to the world

for particular kinds of assets. It is a very advantageous position to be in. It eases our balance of payments financing problems. It allows us to run a trade deficit of a moderate proportion. To have a competitor in that game is something we would rather not have.

We might find that we would have to start redeeming dollars presently being held by the private holders and official holders, and we can only redeem them in goods.

Representative BROWN of Ohio. Are there other comments?

Mr. STERN. One of the possible benefits that might come about if the Europeans were succesful would be to help stabilize rates of domestic inflation within Western Europe and to the extent that that puts pressure on us to follow suit, I think that it would be a desirable result of the integration exercise.

Having said that, I would agree with Dave Richardson that the chances of success of European monetary integration are really not all that great, mainly so long as you have some countries within the EEC that have very different rates of change in productivity and prices and wages. It is going to be very difficult to get a system like that to work effectively.

That was true in the past. I think it is going to remain true.

So from that standpoint then I am not sure what the overall outcome would be. I think it would be unfortunate if they tried to establish an integration program which would operate by restricting the international flow of capital. That is always one of the big dangers that Americans have viewed about European monetary integration.

Mr. CLINE. I think there are some aspects which might be beneficial to us. It seems to me that we have seen in the last few years a pattern whereby some of the lesser European countries run into balance of payments constraints and thereby have to limit their growth. Then they are not able to pursue full employment policies.

That then, in turn, reduces their demand for our exports.

Representative BROWN of Ohio. And the exports of others?

Mr. CLINE. And the exports of others, yes.

One of the implications of the kind of thing that the French and Germans are talking about is that the vast kitty of reserves that the Germans have would be available in some way to facilitate the adjustment to balance-of-payments constraints by other countries in that unit, and to the extent that that activity relaxed the balance-of-payments constraint to more dynamic growth policies in the lesser European countries, it seems to me it could make some contribution to a picking up in the general level of economic activity, which, of course, would help deal with the problem that we have had.

One of the sources of our trade deficits is that we have had a higher rate of growth in recent years than Europe overall, and I am also not quite as convinced that the holding of dollar reserves by other countries and its replacement by the holding of European monetary reserves would be all that serious a blow to us.

I think we have some evidence that the view that reserve center currency status is beneficial is not necessarily shared by Germany and Japan. In fact, they have restrictions on foreign holdings of their assets. So it is not clear to me that there is an enormous windfall that we are enjoying that could then become denied to us by the develop-

ments that Professor Richardson is suggesting, although it is obviously one of the factors to consider.

Representative BROWN of Ohio. How much in international monetary reserves is it appropriate to hold?

Mr. CLINE. I don't think there is any agreement as to a particular accurate level or optimal level of reserves to hold.

By practice, my impression is that most countries hold approximately 3 months' worth of imports as their international reserves, but there is virtually no agreement on what is an optimal level of reserves to hold.

I think one would probably get agreement that Germany and Japan at the moment are holding above what is a desirable level from an international standpoint, although I am sure some would disagree with that.

Representative BROWN of Ohio. Would you like to comment, Mr. Stern?

Mr. STERN. It is difficult to answer because exchange rates are floating, to the extent that floating of the exchange rate and the holding of reserves are really alternatives for one another.

So, as we continue to operate under the international monetary system in which exchange rates move, it is difficult to answer just what the appropriate level would be unless you specify some particular objectives, either say with respect to moderating exchange rate movements in the short run or achieving some degree of price stability.

Representative BROWN of Ohio. Yes.

Mr. RICHARDSON. The only thing I would add is that the question for the United States differs from that for other countries because our reserves are lower optimally than others, since we don't intervene nearly as much as they do in foreign exchange markets.

Representative BROWN of Ohio. They have traditionally been lower?

Mr. RICHARDSON. Yes, and——

Representative BROWN of Ohio. When we have a strong currency.

Mr. RICHARDSON [continuing]. They are still lower.

Representative BROWN of Ohio. You mean now?

Mr. RICHARDSON. Even now, because our intervention is dramatically less than foreign central banks.

Even as of January 4 when President Carter adopted his so-called active intervention policy, the total intervention was about $1 billion in the first 3-month period, and foreign central banks intervened 15 times as much as we did in that same period of time.

Representative BROWN of Ohio. But our intervention has been less and, presumably since the dollar has sunk in value, not as impressive?

Mr. RICHARDSON. It is dollar for dollar; you bid up the rate about the same as you ever did.

Representative BROWN of Ohio. A dollar is a dollar is a dollar?

Mr. RICHARDSON. Well——

Representative BROWN of Ohio. Except that yesterday's dollar is stronger than today's?

Mr. RICHARDSON. Yes, that is quite right, but the impact of selling a dollar on the foreign exchange market has the same impact yesterday as today.

Representative BROWN of Ohio. Except that the dollar is worth less?

Mr. RICHARDSON. Yes.

Representative BROWN of Ohio. Mr. Stern, you said that slackness in the U.S. economy as a whole, or ineffectual management, may be the primary or root cause of the difficulties that have been experienced in certain industries.

If this is a correct interpretation, it suggests that the appropriate remedies are domestic rather than international.

I want to ask you: If we want to improve our competitive posture, don't we have to lower the cost to U.S. production by cutting taxes on U.S. labor and capital in order to be more competitive?

Mr. STERN. I had in mind, when I made that statement, a whole host of different kinds of policies, domestic in character, that might be appropriate to deal with the kind of situation that you mention.

For example, one of these policies might be with respect to the iron and steel industry to perhaps develop some kinds of programs for investment tax credit or similar sorts of policies that would in fact make it more profitable for the industry to expand.

Representative BROWN of Ohio. Let me ask you: If for one industry over another, why not for all industries?

For instance, we could say that all industries can have a proper and accurate depreciation rate based on replacement cost rather than original purchase cost. Therefore, wouldn't an industry that turns more swiftly have an advantage over an industry which does not turn as quickly?

Mr. STERN. The remark in my statement was made with particular industries in mind but I would agree most definitely with you that as far as policy is concerned, it would be desirable to apply it across industry in the sense that if we are concerned—as I think we should be—with trying to increase rates of investment with the end in mind of improving productivity and, therefore, competitiveness policies like this would indeed be desirable across industries.

Representative BROWN of Ohio. So, you would have competitiveness across industries, perhaps the plastics industry might replace some steel capacity and we could use that; or aluminum could replace steel, or steel replacing something else?

Mr. STERN. Yes.

Representative BROWN of Ohio. I assume we would all agree that in the next 10 years the developing nations or underdeveloped nations will have advantages in the raw materials sector since they have the raw materials that have not been brought out and it is likely that they will need to be brought out in the years ahead; but, in which industries do you thing European countries will have an advantage in production over the next decade and in which industries will the United States have an advantage?

I don't ask this for my stockbroker, but rather from the standpoint of whether there are industries that should, in spite of our conversation, Mr. Stern, need special attention.

Mr. RICHARDSON. The natural candidates for special attention are the ones that would be impacted by developing country manufacturers, as you say.

I can't think of any particular trend in European versus U.S. competition——

Representative BROWN of Ohio. Japanese versus the United States?

We have had a shift of several of our industries to Japanese production. Television and electronic items, for example.

Mr. RICHARDSON. That should continue. The general prediction that I would make is that the new technology industries will still be shared between the United States and Germany and Japan in roughly the proportion that they have been. But as the technologies become more and more standardized, the location of production will flow more and more to European countries—not necessarily Germany and Japan, however.

Changes in exchange rates and in unit labor costs have made those countries not nearly as advantageous for developing standarized new technologies as they used to be.

I think instead you may see movements toward other European countries, Mediterranean-European countries, especially if Greece becomes a member of the European community and if Spain and Portugal come to be well on their way to that.

Representative BROWN of Ohio. Would you give me a broader picture on that?

Mr. RICHARDSON. A broader picture. I thought I was giving you as broad——

Representative BROWN of Ohio. Well, Greece will capture the baklava market, I suppose. What would the Greeks get into, labor-intensive industries?

Mr. RICHARDSON. Yes. With some modicum of skills required, since educational systems are more developed there than they are in many developing countries.

You will see pressure I presume on many things such as we have seen in the recent past, calculators, consumer electronics equipment, standardized high technology.

Representative BROWN of Ohio. Where the technology levels off?

Mr. RICHARDSON. Exactly, where the technology levels off.

Representative BROWN of Ohio. What about agricultural products? Is that what we have left, then, in the United States?

Mr. RICHARDSON. No. We have new technology products. We have heavy machinery——

Representative BROWN of Ohio. Would you like to name a couple of them?

Mr. RICHARDSON. Name a couple.

Representative BROWN of Ohio. Name a couple of the new technology areas in which we are apparently taking the lead. I have difficulty with that.

Mr. RICHARDSON. Armaments, undersea exploration of mineral beds.

Representative BROWN of Ohio. As I understand it, our effort in the mineral bed development area is in cooperation with the Japanese.

I am not sure whose technology it is. It will obviously be both countries' technology.

Mr. RICHARDSON. But as I understand it, we have virtually the only independent technology for exploration of mineral beds. That is to

say, we don't need to cooperate with anybody. Everybody else needs to cooperate with somebody; namely, us.

Representative BROWN of Ohio. All right.

Mr. RICHARDSON. We will still have advantages that are quite clear in production of transportation equipment, aircraft, locomotives, heavy duty construction machines; no way are we going to lose that as far as I can see.

Those, plus agriculture and chemicals.

We have a very large positive balance there. We are developing new chemicals and pharmaceuticals all the time. That is dramatic evidence.

Representative BROWN of Ohio. So, our success probably lies in the technology areas is it has for some time?

Mr. RICHARDSON. And in agriculture and in large-scale operations, economy-of-scale intensive type capital equipment.

Representative BROWN of Ohio. The Japanese are putting up a plant to build Honda motorcycles in my district and will move into the manufacture of Honda automobiles there.

The Germans just built a new plant in New Stanton, to build Volkswagens in this country. What is the significance of that?

Isn't the answer to that that it is cheaper to build closer to the market with American labor now than it was a few years ago when it was cheaper to build with German and Japanese labor and then ship it in?

Mr. RICHARDSON. Briefly, the answer is yes, and that is a matter of exchange rates and labor costs.

Representative BROWN of Ohio. What does it say about American labor costs?

Mr. RICHARDSON. That they have declined relative to German and Japanese labor costs.

Representative BROWN of Ohio. So, labor-intensive items are likely to——

Mr. RICHARDSON. Certain labor-intensive manufactures that require this modicum of skills, such as motorcycles, are likely to, I would think, do rather well in this country, but in foreign-owned plants.

Representative BROWN of Ohio. That puts us in the same category with the Spaniards and the Italians.

Mr. RICHARDSON. To some extent.

Representative BROWN of Ohio. Mr. Cline.

Mr. CLINE. I think I would agree with the kinds of sectors that Professor Richardson has indicated, technology and agriculture.

I think some of the foreign investment we have seen come in here in addition to reflecting changes in exchange rates and labor costs probably is also sensing the political vulnerability of continuing to rely on exports to a market in which there are more and more complaints about import penetration.

I think the Japanese firm has a certain incentive to invest in the United States rather than producing in Japan now because there has been so much talk about the possible need to simply screen out Japanese imports if the Japanese trade surplus doesn't come down.

Representative BROWN of Ohio. "Buy American, ride a Honda."

Mr. CLINE. Maybe it would be a good slogan for them. [Laughter.]

Mr. STERN. You have to stress in that respect, it seems to me, the increased employment opportunities that the Japanese investment brings with it.

I think that that would be important in the district that you are representing and elsewhere where these foreign multinationals are investing in the United States.

That seems to be one of the most beneficial aspects of these kinds of activities.

Representative BROWN of Ohio. OK.

Mr. STERN. So, the goods don't have to be produced necessarily by American-owned companies.

Reprsentative BROWN of Ohio. Well, does it follow, then, that we should encourage investment by our rich friends in Germany and Japan if our Nation needs further development?

Mr. STERN. It is not a question of giving them explicit encouragement apart from the encouragement that they have gained from the fact that their currencies have appreciated very significantly with respect to the dollar, and the differences in relative labor cost that Dave Richardson stressed.

I don't think indeed they need more encouragement than that.

A further point would be that there is no reason to discourage them in terms of the impacts that this would have both on employment and on the balance of payments, and the exchange rate.

Representative BROWN of Ohio. We should feel good about them investing in our country because they are providing employment in our country where our system is not quite absorbing the full need for. How would you feel about them investing in nonlabor-intensive production such as agricultural land?

Mr. STERN. Well, that wouldn't necessarily concern me. The main areas that I would have more concern about would be if, say, they were to invest in things like armaments or related types of industries that involve security considerations.

Apart from that, I don't think, necessarily, that there would be any reason to be concerned about investments in agricultural land or other similar sorts of things.

Representative BROWN of Ohio. If there is a pecking order in this international investment, what should it be?

In other words, if it is nice for the Germans and the Japanese with stronger currencies than we to invest in this country because it helps our employment and we profit from this kind of thing and if we are able to reinvent the motorcycle, then seize the market back, where should we be investing?

Where should the United States be investing its capital—what kind of countries? In the lesser developed countries?

Mr. CLINE. I think that's the logical place for our investment to flow. The large U.S. investment in Europe in the 1950's and late 1960's had much to do with the temporary phenomenon of the formation of the European Common Market and the desire to get behind a common market tariff wall.

Historically, our investments have been heavily in Latin America, in particular——

Representative BROWN of Ohio. So they could buy German and Japanese goods?

Mr. CLINE. No. For example, the investment in Brazil in the automobile industry means they are purchasing automobiles that are made in Brazil by U.S. subsidiaries.

It doesn't mean they are purchasing German and Japanese goods, but I think the broad picture still remains true that the United States is abundant in capital, and the developing countries have very little capital so that extra capital going to developing countries is very productive.

Representative BROWN of Ohio. We get a better return.

Mr. CLINE. It makes sense.

Representative BROWN of Ohio. If we invest in the developing countries.

Mr. CLINE. That is right.

Representative BROWN of Ohio. Should we try to undertake anything that would give us a better return then, if we invested it in the United States and shipped the stuff abroad?

Mr. CLINE. Well, the question of whether investing in the United States—instead of investing abroad—and shipping it abroad, whether that makes much difference on employment—which is where this is usually politically sensitive—it is my understanding that there is a very mixed picture on that and one cannot make a very strong case that we are eliminating American jobs by investing abroad.

There are a number of factors that are involved such as the fact that once an American firm puts in a subsidiary abroad it sends exports to the subsidiary in order to provide materials, parts, and equipment: and, the studies done by a number of people, including a recent study by Bergsten, Horst, and Moran at Brookings, raise serious doubts about whether we are losing American jobs because of the activities of investment abroad.

So, in that sense, I don't think one would want to assert that it is preferable to try to keep American investment at home and to keep it from going where the return is higher.

Representative BROWN of Ohio. Let me conclude with this question—I have kept you after lunch, and I appreciate your patience.

The thought that I come to is that an investment ought to be made in the most productive area of return, although that return is not always a percentage on the dollar, it is sometimes to get the thing that you need most.

Now, therefore, our dollars ought to be invested in areas—in technologies perhaps such as undersea development—where we will get a return or that will give us something we need such as raw materials that we may be lacking but are fundamental to other production that tends to defend our other production advantages. Or we could invest in areas where the labor advantages of efficiency are greater, as is the case now with the Germans and the Japanese investing here because the transportation costs and labor costs and potential for tariff protectionism measures on our part argues for the Germans and the Japanese to manufacture here.

Now, does that summarize a sound investment policy for us and for foreign countries or foreign nationals in the United States?

Mr. CLINE. I think it does, if it is interpreted in the following way: If one interprets that the normal market signals should lead to the cor-

rect investment decisions because if in fact it is more important for us then we will be prepared to pay a higher price for the product in question and the return will be higher.

The one exception, I think, is natural resources in developing countries. It seems to me we have a situation where the political risks to investment in the natural resources area in developing countries has escalated so much that firms are no longer prepared to invest in natural resources such as copper mines.

Representative BROWN of Ohio. Such as in Zaire.

Mr. CLINE. Yes; and in general, because of the greater degree of risk.

So, many people are saying this is leading to a global inefficiency because we are putting too much resources into mineral deposits that have lower quality at home, and in other industrial countries, rather than in some of the developing countries.

There may be a need for policy action in this area, for some new forms of multilateral action or codes of agreed conduct on direct investment that would make it possible to reduce that political risk and to once again make the rate of return and the natural efficiency of the deposits be what direct the investment.

Other than that, it seems to me that basically the market signals give the solution one is seeking.

Representative BROWN of Ohio. Sort of enlightened colonialism to assure the source. Colonialism is a bad word. I shouldn't have used it. An enlightened international policy to assure the source of our supply of raw materials.

Mr. CLINE. That is right.

Representative BROWN of Ohio. Any other comments?

Mr. STERN. No.

Mr. RICHARDSON. No.

Representative BROWN of Ohio. It is lunchtime. I have been asked by the chairman if you would respond to written questions, please, at your earliest convenience.

Our staff—always frustrated—likes to ask questions of you. [Laughter.]

We appreciate your being here and the contribution that you have made to this rather extended period of hearings on international economics.

Thank you. The committee will stand in recess.

[Whereupon, at 12:50 p.m., the committee recessed, to reconvene at 10 a.m., Tuesday, July 18, 1978.]

[The following written questions and answers were subsequently supplied for the record:]

RESPONSE OF WILLIAM R. CLINE TO ADDITIONAL WRITTEN QUESTIONS POSED BY REPRESENTATIVE BOLLING

Question 1. In your testimony, you expressed concern about the forthcoming expiration of Presidential authority to waive application of the countervailing duty statute to the imports of developing countries. In what form would you favor extending the President's authority? Can you suggest any standards for when and how rapidly a developing country should begin to phase out its export incentives?

Answer. The economic case for export subsides by developing countries rests upon the concept that in their economies the disincentives to exporting are so severe that compensating incentives are required in order to provide the correct economic signals to exporters. The disincentives to exports result from

measures such as tariffs and quotas on imports, prior deposits of local currency for import purchases, import licenses, and so forth. These restrictions on imports cause an unduly high incentive to produce for the protected domestic market instead of for export. As a result, at the private market exchange rate, the incentive to the firm to export is far lower than the real economic benefit to the economy that can be obtained from each dollar of extra export earnings. In these circumstances, permitting developing countries to subsidize their exports represents granting them permission simply to get back to a neutral, fair price for exporters; it does not constitute a license for them to engage in unfair trade.

Economists are divided on whether some degree of protection is good for development; some maintain that the only good tariff is none at all, while "structuralists" support import protection for countries to develop their "infant industries." Most economists would agree, however, that so long as protection exists, it improves economic efficiency and growth to offset that protection by export incentives such as subsidies.

As to how long developing countries should be given to phase out export subsidies, it is useful to recall that even Europe and Japan had many of these same features of high protection and outright control on imports and foreign exchange as recently as to the late 1950's. For that matter, the United States itself adopted high protection of manufactures in its historical development, rather than merely import manufactures from England and export raw materials, and American tariffs remained extremely high from the Great Depression into the early postwar period. As a matter of international equity, then, it hardly seems fair to insist that the poor countries dismantle their protection immediately when the rich countries only gave up their protection in recent decades (and maintain it even now in some sectors).

I would like to set forth, then, the outlines of what I believe to be appropriate legislative authority in this area.

(1) For all countries considered to be "developing" (as judged, for example, by their eligibility for loans from the World Bank group), the President would retain the authority to waive countervailing duties for a period of ten years. (Ideally the Least Developed Countries and the Most Seriously Affected Countries, as defined by the United Nations, would be given a grace period of twenty years. For legislative purposes, however, it may be more practical to state a period of ten years for all countries, and to redraft the legislation as needed at the end of this period.)

(2) In addition to complete waiver authority, legislation should grant the President authority to apply countervailing duties in amounts required to offset only that portion of the total subsidy that exceeds the degree of subsidy which is deemed by the Secretary of Treasury to be necessary in order for the country in question to offset its existing disincentives to exports. For administrative purposes, an appropriate measure of the degree of subsidy permissible before countervailing on the excess would be the average level of tariffs and tariff equivalents of non-tariff barriers in the country in question. For example, a country with an average tariff level (including the tariff equivalent of non-tariff barriers) of 30 percent would be allowed to grant up to 30 percent subsidies, but would be countervailed against on the excess of subsidies above the 30 percent level.

Because it could be difficult to determine for legal purposes the average level of protection in the country, it would be important to retain full waiver authority (item 1 above) in addition to specifying the alternatives of partial countervailing (this item).

(3) The legislation could provide that the authority under items (1) and (2) would not apply to products for which the International Trade Commission had made a determination of the existence of "serious injury" as defined in Section 201 of the Trade Act of 1974.

Question 2. A number of authorities have suggested the use of tax and other incentives to boost U.S. exports. What incentives would best serve this purpose in a world of floating exchange rates?

Answer. I would not recommend the adoption of tax or other special incentives for U.S. exports. The major decline in the dollar over the past several months should provide sufficient incentive for correction of the large trade balance deficit that arose in 1977 and 1978. Because it takes 18 months or longer for exchange rate changes to affect trade, what is required now is patience and steady nerves until the results of the dollar depreciation materialize.

High oil imports, high U.S. growth compared to that abroad, and slow U.S. productivity growth are all factors contributing to the trade deficit. The best incentives to exports would be indirect—those resulting from improved action on energy, faster growth abroad, reduced domestic inflation, a return to more normal productivity growth.

Because special tax incentives, financing subsidies, and so forth would act to reduce the price of American exports, they would do nothing more (and probably less) than the more direct way of reducing our export prices—depreciation of the dollar. Therefore such special incentives in all likelihood would provide no faster remedy than the dollar depreciations that have already occurred.

I hope that these replies will be of use to the Committee in its Midyear Review of the Economy. Once again I would like to thank you and the Committee for the invitation to participate in the Review.

RESPONSE OF J. DAVID RICHARDSON TO ADDITIONAL WRITTEN QUESTIONS POSED BY REPRESENTATIVE BOLLING

Question 1. In your testimony, you noted that many developing countries do not feel that the gains from trade are fairly distributed. As a result, you predicted an increasing politicization of trade relations with the third world. What is your independent evaluation of the merits of their case? Do you expect the emergence of several manufacturing powers among the developing bloc to split their ranks or otherwise change the tenor of their demands?

Answer. I think that the case of the developing countries is well-taken from the perspective of their own economic self-interest, and poorly taken from the perspective of our own. But I also believe that developing countries overstate their potential gains from politicizing trade relations. First, they seem to give insufficient value to the economic losses from open and disguised hostility to the North's liberal economic order—losses they bear primarily in the form of reduced access to Northern technology, management expertise, and financial capital as Northern providers of these resources are "scared off." Second, perhaps because they have had so little experience with market organization of economic activity, they undervalue their own losses from the global dulling of economic ambition and productive incentives that politicization would bring. Third, I believe that they understate the extra administrative resource costs that are imposed on all societies when political bureaucracies replace or overrule corporate bureaucracies. Fourth, I believe that they would be surprised and disappointed to find themselves as much as ever on the "short end" of the modified power relationships, involuntary action, and dependence that the new international economic order would create.

As to whether the emergence of several manufacturing powers among the developing bloc will split their ranks, I think not significantly. It seems to me that the analogy to the American labor movement is again useful: the issues of disagreement between the most-developed and least-developed developing countries are comparable to the issues of disagreement between trade unions of more-skilled and less-skilled workers. The one "splits the ranks" of the developing countries about as much (or as little) as the other "splits the ranks" of the labor movement. Moreover, I think that conflicts among developing countries may be alleviated in the near future by cooperative horse-trading among themselves, aided by considerable attention to the problems of the least-developed developing countries by international organizations such as the International Monetary Fund, World Bank, and United Nations. (Even the European Community has recently altered its Generalized System of Preferences to be most preferential toward the least-developed developing countries.)

Question 2. A number of trade specialists have argued that many of our competitors accepted a lower profit in the United States in order to sell their excess production. In their view, the practice was partially responsible for our record trade deficit. Would you agree with their opinions? If so, why was the practice unaffected by our anti-dumping statutes?

Answer. I don't disagree with one interpretation of their opinions as you have stated them. But neither do I find this a convincingly large quantitative influence on our trade balance under any interpretation. I am willing to grant the frequently-cited heresay that foreign producers accept a lower rate of profit

in the U.S. market than elsewhere. That is exactly what I would expect from American markets coming closer on average to the economist's competitive norm than any in the world. But I doubt very much if foreign producers regularly or continually accept a lower rate of profit than their U.S. competitors, and I have seen no claims (much less evidence) to suggest this second interpretation of "lower profit." Even if it were true currently I believe it would be a temporary and abnormal consequence of today's considerable (positive) difference between capacity utilization rates in this country and elsewhere. And even if it were true, and widespread among all our import suppliers, how large an effect could it have? I wouldn't think that different profit margins could possibly make more than a one or two percent difference in relative prices under pegged exchange rates. And under variable exchange rates, even most of that small difference would be offset in time by a correspondingly lower value of the dollar in foreign exchange markets.

Whether allegation or fact, if foreign producers do accept lower rates of profit in the U.S. market than their American counterparts or than they do elsewhere, that practice does not constitute dumping, as U.S. law presently defines it. That is why the practice was or would be indeed "unaffected by our anti-dumping statutes," as you say in your question. I might add incidentally that I would blanch at the thought of rewriting U.S. law to make such practices illegal. It would be economically unnecessary because it would have as insignificant an economic impact as the practices themselves. But the political fallout would be alarming. Such a re-definition of dumping would be an inflamatory new non-tariff barrier to trade, unilaterally imposed, that would set us rather acrimoniously at odds with our trading partners, largely because it would be inconsistent with the mutually agreed definition of dumping in Article VI of the General Agreement on Tariffs and Trade.

Question 3. The Administration is presently considering adopting a plan of tax and other incentives to boost the level of U.S. exports. In your judgment, what incentives would best serve this purpose in a world of flexible exchange rates?

Answer. I'm afraid I find unconvincing all the reasons usually put forward by the Administration and others for boosting exports above their "natural" level. I am also quite confident that in the months to come we will see remarkable growth of exports and export orders as a result of depreciation of the dollar over the past fourteen months. In light of this, I hope that your question will be soon moot.

But that is not an answer. Let me start to give one by commending you on recognizing the intricacy that flexible exchange rates create. If the Administration insists on increasing exports by special government inducements, and succeeds in doing so, then a very likely result is a more valuable dollar than otherwise in the foreign exchange market. That in turn leads in due time to increased imports. And if the original purpose of the export inducements was to improve the trade balance, its success can be disappointingly tiny. The export inducements will generate very small perceived "benefits" for their "costs." I might add to clarify that the dollar appreciation from export inducements is smaller and less likely the more inflationary and expansionary are the means of financing the program. But imports still rise somewhat, now because of higher U.S. prices and income, and the inflationary impacts are definitely unwanted side-costs of encouraging exports this way.

As to the means by which exports might be increased if the Administration insists, whether for trade-balance or for other purposes, let me encourage you to look most favorably on directly targeted programs. It is less desirable to legislate tax breaks and other incentives for all exports than to legislate them for "new" or "incremental" exports, say those above a traditional base. The fairly recent revision of the Domestic International Sales Corporation program reflected this. It is also less desirable to legislate incentives for exports with unique (uncompetitive) positions in the world market than for those which face stiff foreign competition. Most of the former exports will take place anyway, even without incentives; the latter may not. To be specific for the United States, non-agricultural exports are predominantly the former, and agricultural exports predominantly the latter. Export incentives targeted on agricultural goods would not only generate large "bang for the buck," but might also alleviate some of the current domestic problems in U.S. agriculture.

But my heart is not in such recommendations. It would be far better to leave exports alone.

THE 1978 MIDYEAR REVIEW OF THE ECONOMY

TUESDAY, JULY 18, 1978

INTERNATIONAL ADJUSTMENT I

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to recess, at 10 a.m., in room 2168, Rayburn House Office Building, Hon. Richard Bolling (chairman of the committee) presiding.

Present: Representatives Bolling, Reuss, Mitchell, and Brown of Ohio.

Also present: John R. Stark, executive director; Richard F. Kaufman, assistant director-general counsel; Lloyd C. Atkinson, Thomas F. Dernburg, Kent H. Hughes, and Paul B. Manchester, professional staff members; Mark Borchelt, administrative assistant; and Stephen J. Entin and Robert H. Aten, minority professional staff members.

Special Study on Economic Change staff present: Robert Ash Wallace, research director; A. A. "Chip" Sayers, research assistant; and Richard D. Bartell, staff economist.

OPENING STATEMENT OF REPRESENTATIVE BOLLING, CHAIRMAN

Representative BOLLING. The committee will be in order.

This is the first of two hearings that will be devoted to the problem of balance-of-payments adjustments in our international monetary system.

The focus of our attention at this hearing will be the problems of world economic recovery and balance-of-payments adjustments under the present quasi-managed floating exchange rate system. The emphasis at tomorrow's hearing will be longer range international economic issues.

A widespread adoption of floating exchange rates in 1973 spelled the end of the Bretton Woods system of fixed par values. Its demise was perhaps inevitable in view of, one, the speed and magnitude with which balance-of-payments disequilibrium began to emerge at constant exchange rates as a result of rapid changes in underlying economic and financial conditions, especially after the mid-1960's; two, the extreme reluctance of countries to adjust exchange rates even in the face of indisputable fundamental disequilibria; and, three, the magnitude of the international movements of capital in response to perceived exchange rate disequilibria.

Thus Bretton Woods, which had become the symbol of economic liberalism and international financial cooperation, could no longer be retained in its original form. Indeed, it increasingly became evident from the mid-1960's on that maintenance of the par value system was itself a threat to international financial cooperation. A change in exchange rate procedures was essential to the continuation of the principles that fostered the original Bretton Woods arrangement.

There are a few of our floating rate experiences which reveal that floating has been adhered more in the breach than in the observance. In the past year or so this has been very extensive. It is no wonder that the current system has been dubbed a "dirty floating system" by observers over the world, or at certain periods of time "filthy floating" would be a more apt description.

We have before us today a very distinguished panel of economists whose task it will be to assess the operation of our current quasi-managed floating exchange rate system. Is it true that a system of fixed exchange rates would be inappropriate in today's world economic environment? Is it best to allow exchange rates to float cleanly, or should exchange rates be somehow managed?

In short, what kind of exchange rate rules should be devised in order to assure that financial cooperation will dominate international relations in the future? How do we insure that individual countries will not manipulate exchange rates in pursuance of blatant beggar-thy-neighbor policies in the face of balance-of-payments disequilibria?

How should the burden of adjustment be divided between surplus and deficit countries, and should the burden of adjustment fall on the exchange rate, or on the domestic economies?

One group of economists, the so-called global monetarists, argue rate exchanges are ineffective as an instrument of balance-of-payments policy. Worse still, exchange rate changes are positively detrimental to world economic welfare. Should the global monetarists be taken seriously? Is there anything to their thesis?

In short, is the system of floating exchange rates really superior to a system of fixed rates?

I am hopeful that this distinguished panel will provide us with the answers we so badly need.

Our witnesses today are Mr. Rudiger Dornbusch, professor of economics at MIT; Mr. Mordechai Kreinin, professor of economics at Michigan State University; and Mr. Robert Solomon, senior fellow at the Brookings Institution.

Gentlemen, welcome to this hearing of the Joint Economic Committee. Let us proceed in alphabetical order. Mr. Dornbusch, will you please begin as you wish.

STATEMENT OF RUDIGER DORNBUSCH, PROFESSOR OF ECONOMICS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Mr. DORNBUSCH. Mr. Chairman, I appreciate the opportunity to share with this committee my views on the U.S. balance-of-payments and the role of the U.S. dollar.

The world economy is in considerable unrest, and that unrest is attributed to three facts: One, the growing U.S. overall balance-of-

payments deficit, partly the current account and partly the capital account; two, the depreciation of the dollar, which has been considerable relative to the mark and to the yen; and true, the failure of the United States to pursue an effective energy program.

What I would like to do in my remarks here, and what I have substantiated more extensively in my statement is to review briefly why we should be concerned about the current account. What are the main reasons that we can think of for the deterioration in the U.S. accounts, and what policies are there to remedy the current account deficit should we want to do so.

Lastly, what part do exchange rates play in that adjustment?

I would like to note at the outset that I believe considerations of oil and of the U.S. stage in the world business cycle have been overemphasized in that context and that insufficient attention has been paid to the possibility that U.S. competitiveness is declining over time partly with respect to LDC's and partly with respect to Europe and Japan that have grown in productivity much more than we have. I will return to that subsequently.

First, the current account. Why are we interested in it?

There are two reasons. One, the current account measures net exports as part of aggregate demand. That is important because if we sell more abroad, that creates demand for U.S. goods and production. Worsening of the current account from that point of view brings marked economic deflation.

The second reason we are interested in the current account is that if we have a deficit, we are borrowing from the rest of the world. We are building up liabilities.

Connected with that is a further reason for our interest in the current account: It signals movements in exchange rates. When we have a growing deficit, then that will lead, typically, to exchange rate depreciation, and exchange rate depreciation, in turn, will affect relative prices. I will return also to that question.

That sets the framework for asking why are we interested at all in the current account? The next question is what has been happening to the U.S. current account? I will turn to chart 1 in my prepared statement, the chart shows the U.S. balance on goods and services as a fraction of GNP over the last 20 years. If you look at the chart in the right way, you will see that the trend of deterioration in the balance occurred through the 1960's, and that commonly is attributed to U.S. expansion and to a decline in U.S. competitiveness. What we are concerned about now is what has been happening since 1973 and particularly what accounts for the very large deficit in 1977–78.

Well, there are three reasons for the deficit. One is that we have expanded fast relative to the rest of the world. The second reason is competitiveness. The United States may or may not have lost competitiveness relative to trading partners. The third reason is oil—that we have a very large oil deficit.

Let me review what can be said about these three explanations for the deficit.

First, if you will turn to table 2 in my prepared statement. this is a table that lays out growth rates in the United States and abroad, and what is shown there is that in 1977, with the exception of the

United States, all industrialized countries have growth rates far below what they had on average in the 1960–73 period. That point is important to recognize, because people might argue that the United States in pushing the rest of the world to faster growth is asking them to perform some very unnatural act.

That, of course, is nonsense when we look at what they have been doing over a 15-year period in the 1960's and 1970's. They are growing much, much less than they did then, and a return to faster growth from that perspective is not unreasonable.

But we must ask, too, what does the United States expect for the current account from faster growth abroad, and I think there we have to be very careful. If we get a 1 percent of extra growth in the rest of the world, will that turn our current account around by many, many billions, or very little?

I think the reasonable estimate is that a 1-percent increase in the growth of the rest of the world might change our current account by $1 or $2 billion, $2 billion on the high side. So we really can't expect that the decisions at the Bonn meeting now will make a difference to our current account. The extra 1 percent, or whatever was promised there, will not make a major dent in the U.S. current account.

If the United States grows fast relative to the rest of the world over a long period of time, then we are accumlating this $1 to $2 billion every year, and, of course, we can build up over time a very substantial imbalance. A large part of the current account deficit in 1977 is, in fact, the cumulative past growth in the United States relative to the rest of the world. Of course, I view the U.S. growth as just right and growth abroad as much too low.

The last point to make is how can we drastically improve the current account? A U.S. recession is really the only way to do it. For the rest, we have to worry whether over time we are out of line with the rest of the world in their growth patterns. This is an important point, because there are signs that the rest of the world, and particularly Germany and Japan, are considering lower trend growth rates. Japan is closer to lower growth. This leads us to believe that we have to be worried that should we continue to grow as we have, we might get seriously out of balance. That is the type of medium-term consideration that I think we should increasingly pay attention to.

Well, let me turn to the second question, competitiveness.

In table 3 of my prepared statement, I have various indicators of U.S. competitiveness, and we can look at three types of things. We can look at the exchange rates and say that there has been a depreciation of 50 percent. The United States must really have gained a lot. More reasonably we look at what has happened to the average price of foreign currency, adjusted for U.S. trade patterns. We call it the effective exchange rate, and the table shows a 15-percent depreciation.

So on that argument we have gained since 1973 about 15 percent, but that doesn't account for the differences in price movements, wages and productivity. If you want to ask what is the real edge that the United States has gained on the rest of the world, we have to look at the next three columns, that show various indicators that adjust exchange rate movements for differences in the behavior of costs and prices and for productivity here and abroad.

On all these accounts, we see that the United States has gained in competitiveness, but the indicators, of course, differ. They show gains

in productivity, and gains in competitiveness since 1970 ranging between 7 and 25 percent.

When we see these numbers, we have to ask: Well, what do we do with them? What do they really tell us about U.S. competitiveness? If, in fact, we had the large gain incompetitiveness, why is the deficit growing? That is really the question we have to ask.

The first problem with these indicators is that they are index numbers that may be very seriously misleading. A country that is innovative at a fast rate will find that wages are rising, because we have become more productive, and that means prices will be rising. The country that is really innovative and competitive will, in fact, experience faster inflation than the rest of the world.

That is the view we have to consider, and it is radically different from macroeconomic thought, that our prices go up and that we can't sell abroad.

If you look at table 4 in my prepared statement, it shows for the 1958 to 1970 period inflation rates and growth rates of exports for Japan, Germany, the United States, and the United Kingdom. The amazing fact, of course, is that Japan had the highest rate of inflation in that period and it also had the fastest rate of export growth.

So that tells us that there is really no presumption that high inflation countries are not countries that are fast growing in competitiveness in world trade. In fact, the evidence from the 1950's and 1960's really leads us to look the other way around.

The second reason why these measured gains in competitiveness may be misleading is that in the short run they may be absorbed substantially by reductions in profit margins. That is the case in Japan and in Germany, and we would expect that once these profit margins are redressed, there would be more of a gain for the U.S. economy in terms of increased net exports.

There is the argument that the gain in real exchange rates that we have had takes time to be reflected in trade. I think that is not an argument that we can accept, because the major gains in real exchange rates occurred in 1970–73, and we are now in 1978. Most of those adjustments should have taken place. The only remaining adjustments I see are those that are related to relocation internationally, and we do see increased foreign direct investment in the United States. So there is some evidence there that at least relative to Europe we have again competitiveness.

The most important point I want to make about competitiveness concerns the changing role of LDC's in the world. In table 5 of my prepared statement I show that the United States has run a trade deficit with nonoil LDC's, and that is really a very novel and unusual fact.

We think of LDC's as deficit countries that are growing and borrowing, but the United States is now running a deficit of $8 billion with these countries.

Striking is also the growing role of LDC's as exporters of manufactured goods. We see in the table that since 1972 the LDC's have increased their share in U.S. imports to 21 percent, and apparently the numbers for 1977, when they come out, will be even higher.

Over the last 10 years there has been a substantial change in world trade. LDC's have become exporters of manufactured goods, and the United States will be the first to bear the burden of that, because econo-

mies of scale make the U.S. market the first for any foreign exporter to consider. The size of the U.S. market and the relatively easy access means that the United States will be the proving ground for their new ability to trade and produce manufactured goods.

I have a little to say about oil. I caution that there won't be any fast effects from a U.S. energy program on the current account. The effects won't be fast because the domestic production of alternative sources will be slow, and a substantially increased price in the home market for energy would mean that we would substitute toward energy-efficient products and equipment which are currently produced abroad. So there will be a substantial increase in imports.

That doesn't mean we should not pursue such a program, because in the medium term, the United States in response to higher prices will become a producer of energy-efficient resources and products, and should become an exporter. I think our technological know-how means that once we adjust prices we will become a source for net export of energy-efficient resources.

I want to come next to the question of what adjustments in the current account are possible.

One possibility of adjustment is recession, and I think everyone realizes that is disagreeable. There is also a sharp depreciation of the dollar as an alternative, and I don't think that is a good idea. It will make the already shaky world economy more precarious. So the argument must be for coordinated expansion. Foreigners should expand their economies. First, they should expand their economies and take over growth leadership from the United States because our GNP gap is narrowing while they have plenty of slack.

Second, foreign profitability is very low. Investment has been stagnant. The United States is an exporter of investment, and the United States, therefore, has a direct interest in foreign profitability induced by a foreign expansion.

Next, balance is important. The concern with macroeconomics in the last 10 years has really thrown into chaos our economies. The balance between investment and consumption has been upset to the detriment of investment. The private and public sector balance has been upset, and perhaps most importantly, the balance between domestic demand and exports has been very much upset.

In my prepared statement, I show a table, table 7, that reflects the sources of growth in various countries, and you will find that net exports have contributed in most countries other than the United States to increased demand and not their domestic demand. So that is really a reflection of beggar-thy-neighbor policy.

Perhaps the most important argument about a coordinated expansion concerns the exchange rate movements in the process of expansion. If one country expands alone, that country will have a depreciating exchange rate.

In my prepared statement, table 8, I show the domestic prices and import prices in Germany, Switzerland, and Japan. For anyone interested in controlling inflation the table shows that these countries have falling import prices.

If you look at the first quarter of 1978, import prices are falling at the rate of 8 to 10 percent in those countries. You can afford quite a bit of domestic inflation and still come out to zero. My argument is

that the deflation, or the reduction in inflation, in Europe and Japan is substantially borrowed from the rest of the world through an uncoordinated expansion, and it is time to give it back and give the rest of the world the benefit of some price stabilization.

We have come to the issue of surveillance. It is becoming important in view of the very substantial dollar accumulation in the rest of the world and the increase in U.S. liabilities under the outstanding agreements. I don't really see that except as the IMF has traditionally practiced surveillance for small countries there is any scope. I certainly do not see any scope to practice surveillance on surplus countries. The problem is that we don't have unambiguous indicators. I have commented earlier, in this context, on the ambiguity of real exchange rate measures. But without indicators that could be used, the political process favors countries that can claim prudence and anti-inflation policies. The effect this will have is that small countries that expressly ask for it will make exchange rate arrangements with the Fund, but large countries, say, countries like Japan, will be, in effect, not forced to have their exchange rate considered by the Fund.

The problem of surveillance is this: In a high employment economy, one does not have an interest in beggar-thy-neighbor policy. In an unemployment economy, beggar-thy-neighbor policy is a problem. What must be the answer is an agreement on world demand and along with that, a pattern of exchange rates.

From the U.S. point of view we don't have any interest in surveillance, because surveillance would mean stabilization of the dollar and that would prevent further depreciation of the U.S. exchange rates, which are required to compensate for our loss of competitiveness. The alternative, of course, is for us to have unemployment.

Thank you very much.

[The prepared statement of Mr. Dornbusch follows:]

PREPARED STATEMENT OF RUDIGER DORNBUSCH

International Adjustment and Surveillance

The large external imbalance of the United States, the ongoing depreciation of the dollar and the continuing high level of oil imports are viewed abroad as a central problem in the world return to stability of trade and payments. Some of the relevant facts are shown in Table 1. Here we show that the dollar price of the Deutsch-Mark, one of the key exchange rates, has changed by only 5 percent in the 1975–77 period but since then has undergone an increase of more than ten percent. The same pattern is true for the Japanese Yen where an 11-percent appreciation in 1975–77 was followed up since last fall by a further appreciation of almost 15 percent.

TABLE 1

	$/DM	$/Y	Trade balance	Goods and services	Official settlements
	(1)	(2)	(3)	(4)	(5)
1975	100.0	100.0	9.0	22.6	4.7
1976	97.6	100.1	−9.3	10.1	10.5
1977	105.8	110.9	−31.2	−8.7	35.3
1978/I	118.3	125.0	−11.2	NA	15.9

Note: Columns (1) and (2) are indexes of the dollar price of the DM and the yen. Columns (3), (4), and (5) show in billions of dollars the U.S. trade balance, the balance on goods and services, and the overall balance of payments measured by the increase in net foreign official reserve assets.

Source: International Financial Statistics, Federal Reserve Bulletin and Economic Indicators.

With respect to the U.S. external balance we note the turn-around from a $9 billion trade surplus in 1975 to a 1977 deficit of more than $30 billion. That trend is sustained by an $11 billion trade deficit in 1978/I. The overall U.S. balance of payments deficit measured by net changes in foreign official reserve assets is reported in the last column. It shows a growing deficit that by 1977 had reached a very substantial $35 billion. This measure of the U.S. balance of payments is a rough indicator of exchange market intervention and can thus be interpreted as a sign of rising and very substantial efforts to slow down or stop the decline in the external value of the dollar. Striking as these facts may be we still have to ask whether they should be of concern, what their origins are and what can or should be done about them. I will turn now to these considerations.

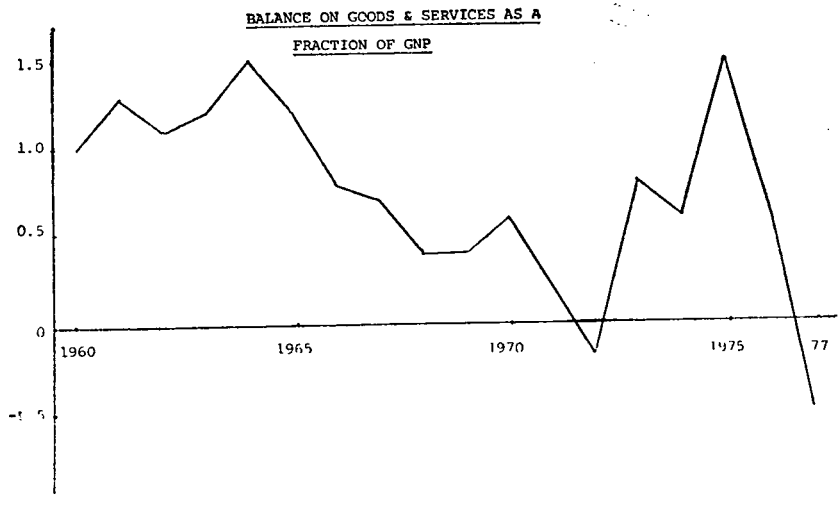
THE U.S. CURRENT ACCOUNT

The balance on goods and services is of concern for two reasons. First, from a macroeconomic perspective, it is a component of aggregate demand. It measures net exports of goods and services to the rest of the world. A deterioration in the current account thus implies a reduction in demand for U.S. goods and services. It is of course important to recognize that the statement is incomplete without asking why net exports should have declined—increased imports as a consequence of say domestic spending, a loss of exports or adverse movements in international prices. This perspective on the current account is now well appreciated in part at least as a consequence of the oil price increase and the resultant inflationary impact on the U.S. economy.

The current account not only measures our net exports of goods and services but also the increase in our net claims on the rest of the world than we purchase and that accordingly we acquire claims, in whatever form, on the outside world. This aspect of the current account is again well understood in part as a consequence of the OPEC build-up of wealth which their surpluses and our deficits have made possible. One important implication that is associated with net external borrowing implied by current account imbalance is pressure on exchange rates. An increased deficit is typically viewed as a signal for exchange rate depreciation.

To gain some perspective on the recent deterioration in the current account we show in Chart I the U.S. balance on goods and services as a fraction of nominal GNP. (Deflating the balance by nominal GNP provides a rough adjustment for the changes in the size of the economy and in the level of prices.) The Chart brings out the fact that the current account has been gradually deteriorating throughout the sixties, falling from a surplus of more than 1 percent as a fraction of GNP to less than half a percent by the early seventies. The current deterioration in the balance is commonly attributed to three factors: (1) Relatively fast growth in the United States compared to the rest of the world, (2) Oil imports, and (3) A change in U.S. competitiveness.

CHART 1



Growth, cycle and the current account

There is no doubt that the relative U.S. position in the recovery from the world recession has left the United States particularly exposed. The domestic expansion in demand has spilled into increased imports without a substantial compensation in terms of foreign sales induced by growth abroad. This fact is readily appreciated from table 2 where we show growth rates for real output in some of the major industrialized countries. The table shows that with the exception of the U.S. growth in 1977 has been very substantially below the 1960–73 trend. Indeed, for all other countries shown growth in 1977 real output was less than half the growth rate achieved on average in the 1960–73 period. Moreover, these growth rates also contrast with those achieved in 1976. With the exception of Japan all countries in 1976, in the initial recovery from the recession, were near to their trend growth rates. The implication of these changing patterns for the U.S. trade balance is brought out by a comparison of the 1976 and 1977 numbers. When world real growth is in line with the United States or even higher, such as was the case in 1976, the United States shows a current account surplus. By contrast in 1977 with growth abroad very sluggish but sustained at home the external balance shows a large deficit.

TABLE 2.—GROWTH RATES OF REAL OUTPUT

	Annual average, 1960–73	1976	1977
United States	4.1	6.0	4.9
Germany	4.5	5.7	2.4
Japan	10.3	6.0	5.1
France	5.4	5.2	3.0
United Kingdom	3.1	3.1	0
Canada	5.6	4.9	2.6

Source: Federal Reserve Bank of St. Louis.

There can be no argument with the proposition that a large part of the 1977 and 1978 deficits are due to the particular constellation of growth patterns here and abroad. There are, however, two important issues to be resolved. One is the quantitative importance of the divergent growth patterns. The other issue, related to the question of adjusment, is whether there is a permanent change in growth patterns that fundamentally changes the U.S. growth potential consistent with reasonable external balance.

The quantitative importance of the divergent growth patterns for the U.S. current account are very hard to nail down with any precision. If fiscal measures raised real spending in non-U.S. industrial countries by an average of one-half percent the effect would work out to perhaps as much as a 1 percent increase in the rest of the world real GNP. How much of a current account improvement could the United States expect from such a move? Real exports no doubt would increase with difference across commodity categories that average out to 1 percent or 1½ percent on the high side. There is some offset, however, from increased real raw material prices including the possibility of a rise in real oil prices. Taking this into account the resulting current account improvement may be as small as $1 or $2 billion.

The composition of U.S. exports suggests that we should pay attention to the details of the foreign expansion program. A policy mix abroad that would favor investment and capital expansion would clearly raise the U.S. possibilities as an exporter of machinery. By contrast, if the policies are primarily in the area of construction and public works, with a local concentration of benefits, there is a corresponding reduction in U.S. opportunities. On balance the concern over investment, and hence a shaping of policies in that direction, is likely to be offset by a concern to capture locally most of the policy benefits.

What lesson can be drawn from the preceding discussion? In interpreting the current account deterioration and in contemplating the potential benefits of foreign expansion three points stand out. First, a small and transitory change in foreign growth will not cause a multi-billion-dollar change in our current account. Second, the current account is very substantially affected by our own level of economic activity. This is, indeed, the single most important influence. Third, a sustained change in foreign growth rates relative to those in the United States will cumulate into a substantial change in our current account. I take this to be the main reason for the deterioration in our current account since 1973–75. On average, over the last few years our growth has been high relative to that abroad.

The point also forces us to ask whether there is a permanent change in the prospects for output and growth abroad and thus, on our present growth trend, the potential of increasing imbalance. There is good reason to believe that such a change in trend growth rates has indeed occurred. In the medium term the decline in investment implies lowered productivity growth and thus a lowering of trend growth in potential output. Beyond that major changes in the social attitude toward growth in Japan and Germany and in the potential for growth through domestic industrialisation in LDC's are likely to lead to a lower trend growth abroad and hence to a reduced growth rate of our exports. In this context it is also important to recognize that the growing aversion to public sector deficits will lead increasingly to policies that sustain the growth of potential output through exports rather than public sector demand.

Compctitiveness

A second factor in assessing the current account is the change in U.S. competitiveness. It is generally recognized that throughout the sixties the U.S. dollar gradually became overvalued. That overvaluation, in conjunction with the overexpansion in the late sixties, lead to increasing current account problems. The question now is to what extent that overvaluation has been remedied by the dollar depreciation that has taken place since. Table 3 shows some of the pertinent facts about the effective exchange rate and various measures of the real exchange rate:

TABLE 3.—U.S. COMPETITIVENESS (1970=100)

	Effective rate	Export unit values	Value added deflator	Labor costs
1973	84.0	87.0	77.5	78.1
1975	83.6	91.5	75.8	71.5
1977	87.1	93.7	76.1	75.2

Source: International Monetary Fund.

The effective exchange rate measures the dollar price of a basket of currencies, the composition of which is determined by the importance of foreign countries in world trade. The decline in the effective exchange rate since 1970 is of the order of 15 percent and indicates a substantial depreciation of the dollar in terms of foreign currencies. That depreciation, however, had largely occurred in the 1970–73 period, although there has been some further depreciation earlier this year. The important point to recognize, of course, is that the depreciation relative to the average foreign currency, while substantial, is by far less than the depreciation relative to the DM and Yen that amount to 60 and 35 percent respectively.

The effective exchange rate by itself does not provide a measure of the gain in competitiveness that the United States has gained. The depreciation of the dollar, to some extent, merely reflects the differences of inflation rates between the United States and the rest of the world. Various measures of "real, effective exchange rates" are shown in the table. Here we look at the rates adjusted for the behavior of export prices, the GNP deflator and labor costs for the United States and competitor countries. By either of these measures the United States has become more competitive since 1970 and has substantially maintained that gain in competitiveness. Our export prices have risen less than the dollar prices of our competitors. The same is true for our labor costs, adjusted for productivity and cyclical factors, and for our value added prices. While various real exchange rate indicators may vary in the extent of the gain in competitiveness that they suggest they do nevertheless all show a maintained and substantial gain. They also show, however, that the gain was achieved in the early seventies and has, at best, been maintained since then.

The gain in competitiveness that is shown in table 3 promises, of course, to have a beneficial impact on the current account. The adjustment lags to changes in relative prices are very substantial, perhaps of the order of two or three years. Nevertheless we must assume that a substantial part of the adjustment has already been taking place and is reflected in the favorable current account in 1973–76. The remaining adjustments will derive largely from the international relocation of production through direct investment. In the short and intermediate term these relocations may have quite adverse effects on the current account since foreign direct investment typically has a very high import content and only in the operating stage comes to cutting down imports and replacing them by domestic production.

A second point in evaluating the implications of the measured gain in competitiveness concerns the interpretation of these indicators. The point is simply that these index numbers, since they represent the average behavior of prices or costs in the economy, may be very misleading. A country may gain in competitiveness despite a substantial increase in average wage levels if in the traded goods sector the increase in wages is more than offset by productivity gains. The point is best understood by reference to the fixed exchange rate period 1958–70 for which we show in table 4 the average rate of increase in GNP deflators and export value for several countries:

TABLE 4.—AVERAGE ANNUAL INFLATION AND EXPORT GROWTH, 1958–70

[In percent]

	Japan	Germany	United States	United Kingdom
Inflation	4.9	4.0	2.7	3.4
Export Growth	17.1	12.0	8.2	6.1

Source: Federal Reserve Bank of St. Louis.

The table shows that a low inflation country like the United Kingdom has relatively low export growth while a high inflation country like Japan enjoys a very substantial export growth. There is no way around the fact that broad competitiveness indicators may be entirely misleading if there are substantial changes in relative prices or the composition of trade. As a rule an innovating, expanding country should experience both a gain in competitiveness and an improvement in the terms of trade or rise in relative wages. With this consideration in mind it is of course quite possible that the measured gain in US competitiveness quite substantially overstates the gain that actually has occurred.

The point is reinforced by inspection of chart 2 where we show for a selection of countries the change in effective exchange rate since 1970 and the change in competitiveness measured by value added prices. The figure shows the appreciating countries—Germany, Japan and Switzerland—as losers in competitiveness. The depreciating countries—the United States, Italy or the United Kingdom—by contrast gain in competitiveness. These changes in competitiveness notwithstanding Germany and Japan have sustained, if not increased, their trade surplus while the depreciating countries have not had the expected gains in terms of a trade balance improvement.

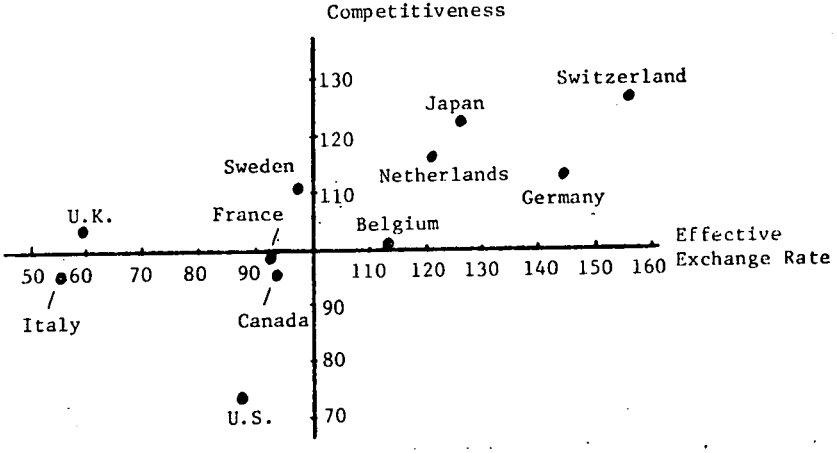


CHART 2

EFFECTIVE EXCHANGE RATES AND COMPETITIVENESS: 1977

(1970=100)

One possible explanation for the limited trade effects of the changes in real exchange rates is that they have been offset, in part at least, by reduced profit margins. This argument has been advanced for the cases of Japan and Germany. It suggests that the changes in real exchange rates will still come to exert their full effects when profit margins are restored or foreign firms cease operation. A further fact that is of importance in evaluating U.S. competitiveness, and that of industrialized countries at large, is the growing role of LDC's as producers and exporters of manufactured goods. LDC's such as Brazil, Mexico or Taiwan have growing experience in producing competitively manufactured goods that traditionally have ranged among industrialized countries' output and exports. The phase of learning by doing and production for the domestic market is coming to fruition as they show up in the world market and make increasing inroads on industrialized countries' markets and in intra-LDC trade. Such a possibility is perhaps best indicated by the important changes in bilateral trade patterns between the United States and LDC's.

TABLE 5.—U.S. TRADE WITH LDC's

[Dollar amounts in billions]

	U.S. trade with nonoil LDC's		Nonoil LDC manufactured exports to United States [1]
	Exports	Imports	
1972	$10.8	$8.5	15.3
1974	25.6	22.5	19.2
1976	28.2	30.3	21.1
1977	29.7	37.2	NA

[1] Percent of total U.S. manufactured imports.

Source: Direction of Trade and International Trade 1976/77.

The table reflects not only the striking fact of a U.S. deficit with respect to non-oil LDC's as a group but also shows their growing role as a supplier of manufactured goods. While the trade figure for 1977 reflects no doubt in part a slowing down of growth in the LDC's, I interpret them nevertheless to show a change in trade patterns. The traditional or structural deficit of LDCs' characteristic of the development process is narrowing and trade competition with traditional U.S. exports is widening. If that interpretation is correct then it has to be recognized, along with the slowing growth trend in industrial countries, as a tendency with major implications for the medium term current account prospects.

Oil

The role of the oil price increase in the deterioration of the U.S. current account has received much comment and needs little further explanation. Table 6 shows the behavior of total imports and oil import spending. Since 1973 oil imports have risen from 12 percent of import spending to 30 percent. Failure to conserve on oil and reduce imports of oil products are commonly blamed for the deficit and it is implied that a vigorous program would have substantial shortrun trade balance effects.

TABLE 6.—OIL IMPORTS, 1973–77

[In billions of dollars]

	1973	1974	1975	1976	1977
Total imports	70.5	103.7	98.0	124.0	151.7
Oil and products	8.4	26.6	27.0	34.6	44.7

Source: Economic Report of the President and Federal Reserve Bulletin.

The energy program is popularly viewed as an important source for an improvement in the U.S. current account. There is, however, some doubt about the extent of these beneficial effects. These doubts arise both with respect to the short term effectiveness of the program, with respect to the longer term substitution effects that it is intended to induce, and with respect to the associated macroeconomic policies designed to offset the adverse effect of the price increases.

In interpreting the current account effects we must bear in mind that the current account is equal to net exports or the difference between our income and our expenditure. We thus would have to be able to show that the energy program raises aggregate income or output relative to our spending, or, to put it differently, that the program exerts an expansionary macroeconomic effect on the home economy. There would, of course, be incentives to substitute toward more energy-efficient goods and production processes.

The development of domestic energy sources is not a shortterm source of major macroeconomic expansion. The substitution toward energy efficient goods and processes will no doubt benefit partly domestic producers of these commodities. In substantial measure, however, it may also mean an increase in imports since the rest of the world has surely at present a comparative advantage in the design of energy efficient goods. The net effect, therefor, may well be a conservation of oil products on the import side but a largely offsetting increase in other imports or a reduction in exports where the implicit subsidy from low energy prices is eliminated. This is all the more so if the deflationary effects of an energy are offset through compensating fiscal action.

These considerations suggest some dampening of the beneficial current account effects of an energy program. They, of course, in no way imply that we should not adopt a more efficient policy in this vital area. In the medium and long term an energy program domestically would create the right demand pattern that leads to the innovation and production of energy efficient products—small cars, appliances, industrial equipment—of which the U.S. presently is of course an importer but which, with the U.S. technological potential, may well become export products.

In summary I see three main influences that have worked to deteriorate the U.S. current account. The first is the cumulative effect of a high U.S. rate of expansion relative to the rest of the world. Here it is important to ask whether the resulting imbalance will be reversed by Germany and Japan taking a turn at growth leadership. The second source of a deterioration in the current account is the worsening in our current account from the oil price increase. The prospects for an improvement here are long term and at present do not look too good. The third factor is competitiveness. Here the interpretation is ambiguous. The conventional measures of competitiveness show a gain for the United States as does the fact of increased foreign direct investment. At the same time it is true that the United States is increasingly meeting the challenge of foreign countries, and LDC's in particular, imitating U.S. technology and products and doing so competitively. There is no escape from such imitation and the only long-term adjustment is to invest in new products and techniques that will keep the export sector vital. In this respect it is interesting to note that Germany, which of course faces the same problem, is considering a public investment fund for the production of new techniques and goods that will keep the economy competitive.

COORDINATION AND ADJUSTMENT

The preceding discussion has set a framework in which to review U.S. interests in an adjustment of the pattern of current account balances and in an international coordination of macroeconomic policies. Before entering that discussion, however, we should note that there is nothing intrinsically wrong or undesirable about a current account deficit. There is certainly no economic principle by which the United States or the typical developed country should year after year run a current account surplus with offsetting deficits run by the LDC's. The very fact of a persistent, though declining, OPEC surplus forces the rest of the world to a current account deficit, the world distribution of which is determined by private and public saving and investment choices.

Against this background we can evaluate the possibilities for an adjustment in the U.S. current account. We first look at unilateral actions of which there are essentially three. We have already noted the first policy, a forceful energy program. This is of course the policy suggested by Europe and Japan since it is a policy that directly benefits them by softening the real price of energy and by creating demand for their energy efficient output. Even if the current account effects should be moderate there are overwhelming reasons to pursue such a policy.

The alternative route to current account adjustment involves either a slow down in U.S. expansion or a drastic change in real exchange rates so as to

shift world demand from foreign goods to our output. Neither of these policies is desirable. They are disruptive of an already shaky recovery abroad, they do little to deal with the fact that the world economy faces two problems—aggregate slack and external imbalances. The proper policy mix, as the United States has long argued, should deal with both problems simultaneously.

There are four important arguments for an adjustment strategy that is coordinated and involves a substantial growth contribution of the surplus countries, in particular Germany and Japan. The first argument is that the United States can no longer assume that growth leadership in part because the GNP gap is narrowing while abroad it remains large and indeed is growing in some countries. Moreover, continued U.S. growth leadership would further aggravate the current account problems that are to be mitigated along with a world recovery.

A second argument for a coordinated expansion with a strong domestic contribution by surplus countries considers the effect on profitability, and therefore investment. The adverse change in real exchange rates in the case of Germany and Japan, and perhaps in United Kingdom manufacturing, and the contraction of economic activity with which the Italian surplus was achieved have seriously cut profitability and have led to a sharp decline in real investment. An expansion of economic activity will provide room for profit margins to recover and for investment to revive. This is all the more so if, as is sensible, the stimulus takes the form primarily of investment subsidies and incentives. The United States stands to benefit from such a policy particularly because of its role as an exporter of investment goods.

Both of the preceding arguments involve the idea of a balanced expansion in the world economy. The idea of balance applies not only to the reduction in GNP gaps across countries but also to the composition of output between domestic demand and exports, between public and private spending and between investment and consumption. A more balanced expansion than has taken place to date will reduce the very substantial disequilibrium. The present imbalance is reflected in the sources of real growth—domestic demand, export growth and import reductions:

TABLE 7.—REAL GROWTH PATTERNS, 1976/IV–1977/IV

[Annual percentage rates]

	Real growth	Domestic demand	Exports	Imports
United States	5.7	6.3	−2.2	7.0
Germany	2.1	1.2	4.6	1.8
Japan	5.3	4.2	4.1	−5.2
United Kingdom	−.3	−.8	.6	−1.3
Italy	−1.4	−3.0	3.1	−3.6

Source: Bank for International Settlements.

Conceptually, at least, there is a fullemployment pattern of output composition and current accounts that is compatible with an open trading system and significant growth in capacity, employment and productivity. That pattern is, of course, not very precisely defined. Clearly, though, a pattern of increasing net exports by a group of hard currency countries and a trend of declining investment ratios and productivity growth is entirely the wrong direction in which to head the adjustment process.

The fourth argument for a coordinated expansion with leadership by the hard-currency countries involves the exchange rate movements associated with divergent rates of expansion and the associated trade imbalance. A country that, in isolation, expands relative to the rest of the world will find its current account deteriorating sharply and its exchange rate depreciating. The depreciation of the exchange rate will immediately lead to higher import prices and thus also to higher domestic prices for producers and consumers. Countries, by contrast, that lag in the expansion find their exchange rates appreciating and derive from that appreciation and the associated decline in import prices a dampening of inflation.

In theory we would expect the exchange rate depreciation of the expanding country to further advance its expansion by increasing competitiveness. That tendency, in the short run, is however not very effective. More likely, the

J-curve will imply growing deficits and increasing depreciation and inflation before the beneficial real effects set in. Likewise in the lagging country we would expect the appreciation to work primarily on the rate of inflation and on a short-run widening of the trade surplus before the loss of competitiveness makes substantial inroads on real activity. This process has been called the "virtuous and vicious circle" and it is recognized as one of the important aspects of exchange rate movements.

This process has certainly been at work in the stabilization of inflation in the case of Germany, Switzerland, and Japan. Table 8 shows data for the GNP deflators and import price inflation in these countries. It is not surprising that the very low rates of import price inflation, and the deflation in some cases, should have allowed a very rapid stabilization of inflation in these very open economies. That reduction in inflation, though, has been achieved at the expense of other industrialized countries like the United States whose depreciation has added to their inflation rates. The relatively fast U.S. expansion, or the lack of synchronization and coordination, has thus introduced a discrepancy in inflation rates that worsens the trade-offs for the countries that are relatively close to full employment and eases them for those that have grown very slowly.

TABLE 8.—DOMESTIC AND IMPORT PRICE INFLATION

	Germany		Switzerland		Japan	
	Domestic	Import	Domestic	Import	Domestic	Import
1975	7.1	−1.7	6.7	−9.8	7.4	7.6
1976	3.2	6.7	2.3	.4	6.5	6.0
1977	3.8	1.5	.1	1.2	6.2	−4.2
1978/I	NA	−8.0	NA	−11.1	NA	−11.4

Note: Domestic inflation is measured by the GNP deflator; inflation of import prices corresponds to the rate of import price increase (not import unit values). The 1978/I inflation rate is the annualized quarter to quarter growth rate of import prices.

Source: International Financial Statistics and Federal Reserve Bank of St. Louis.

The proper recovery strategy for a world recession should be a policy mix that leaves nominal and real exchange rates substantially unchanged and envisages rates of demand expansion that stand in proportion to excess capacity, current account surpluses and the degree of price stability.

In summary, the current position is one where the United States should no longer assume growth leadership but rather be concerned about arresting the acceleration of inflation and the decline in investment and productivity growth. Germany and Japan, by contrast, should stop riding the J-curve and the safest way to do so is by a serious commitment to real growth. Such a commitment is important for the world economy since their accumulated loss in competitiveness cannot fail to start cutting into their real growth and thus has to be offset. At the same time their growth leadership will allow the poorly adjusted surplus countries—Italy, the United Kingdom and other countries that have been IMF'ed—to take a more expansionary posture without endangering their external position. There is little doubt that such an expansion will be inflationary for the leading countries, but then their good inflation performance has in good measure been borrowed and now should be returned. The expansion will also improve the terms of trade of primary producers and their export revenue. This will spread the expansion to poor countries. Given their high import propensities we can be certain that most of that expansion will be spent on industrialized countries' output and thus add to the expansion or reduce the required initial stimulus.

SURVEILLANCE

The problem of exchange rate surveillance arises as an important issue for two reasons. The first is the entry into force of the amended articles of agreement of the IMF that provide explicitly and quite formally for exchange rate surveillance. The other reason is the growing concern over the depreciation of the U.S. dollar and the growing extent of exchange market intervention. One measure of the extent of exchange market intervention is the U.S. deficit, another measure is provided by the change in foreign international reserve holdings. These are shown for some countries in table 9.

TABLE 9.—INTERNATIONAL RESERVES

[In billions of dollars]

	1975	1976	1977	1978/1
Germany	31.0	34.8	39.7	42.2
Japan	12.8	16.6	23.3	29.0
United Kingdom	5.5	4.2	21.2	21.6

Source: International Financial Statistics.

The data of course raise the question whether the exchange rate system is overmanaged, whether exchange rates are sustained against fundamental trends, whether current account adjustment is impeded and whether "unfair competitive advantages" are gained.

The IMF presumptive indicators of inappropriate exchange rate practices include protracted one-way intervention, unsustainable borrowing, controls or restrictions on trade and payments, financial policies for the encouragement of abnormal capital flows and finally a behavior of exchange rates that is out of line with fundamentals. By one or the other of these criteria each of the countries in table 9 pursued an inappropriate exchange rate policy. Yet there would be agreement that the British intervention served substantially to stabilize employment in the face of speculative inflows. The Japanese intervention in conjunction with continuing trade protection and insufficient domestic expansion, however, is largely viewed as an inappropriate exchange rate policy. The two examples already suggest that there is little purpose in establishing narrow rules and that exchange rate surveillance will remain an informal, infrequently practiced activity. The IMF will, as it always has, accompany stabilization schemes by conditionality that includes exchange rate terms. For surplus countries the IMF in principle now has the procedures to question exchange rate policies but in practice one cannot but expect an asymmetry whereby the burden of exchange rate adjustment falls primarily on small deficit countries. The problems raised by surveillance, as has been noted, are no different from that of "fundamental disequilibrium" or the scare currecy clause in the IMF rules.[1] Of course these rules have never come to be applied, at least to major countries, because surplus countries can claim the virtues if prudent, non-inflationary policies.

The problem of exchange rate surveillance is largely the problem of a world economy with insufficient aggregate demand. In a high-employment world economy those countries that undervalue their (real) exchange rates will experience excess demand and inflation or an excessive inflow of external factors of production such as Germany and Switzerland did in the sixties. Those that overvalue their exchange rates find stagnation in the industrial sector and an overexpansion of public sector activity such as in the United Kingdom. There is no important foreign interest that is hurt. The current accounts implied by real exchange rate choices reflect largely the choices between consumption and investment and there is no reason to subject them to international surveillance. This ceases, of course, to be true in a world of underemployment where an expansion of net exports and external lending becomes an alternative to a public sector deficit. International coordination of the pace of economic activity is the essential route to reconcile divergent interests and the implied pattern of equilibrium exchange rates is one aspect of the coordination. In this perspective exchange rate surveillance for major countries without a commitment to coordination is entirely illusory as an international undertaking.

Representative Bolling. Thank you for an interesting statement. Mr. Kreinin, please proceed.

STATEMENT OF MORDECHAI E. KREININ, PROFESSOR OF ECONOMICS, MICHIGAN STATE UNIVERSITY

Mr. Kreinin. Mr. Chairman, it is a pleasure to appear before this committee. I would like to compliment the committee and its staff for

[1] See A. Swoboda, "Interdependence, Co-Operation and Conflict in the Post-Bretton Woods Era," Harvard University, 1978.

suggesting such divergent emphasis in the statements that there is virtually no overlap, even though we are talking about the same general subject.

I will confine myself to my statement, although I have a few comments on Professor Dornbusch's statement, most of which I am in agreement with.

Since March 1973, the international currency system has been a hybrid of four exchange rate regimes: "Managed floats" of the major currencies; a "joint float" of five European currencies led by the German mark; LDC's currencies pegged to a single currency, mainly the dollar; and LDC's currencies pegged to a basket of currencies, be it the SDR or a tailor-made basket. As a consequence, the U.S. dollar has also become a fluctuating currency.

U.S. intervention in the foreign exchange market has been minimal. But since foreign central banks use the dollar as the intervention currency in their activities, intervention that exceeded $10 billion in 1977, they indirectly influence the exchange value of the dollar.

In the late sixties and early seventies most academic economists and many "men of affairs" advocated the abandonment of the adjustable peg system in favor of floating exchange rates. Now that generalized floats have been in force for several years the system is being criticized as "unstable." In Europe the system appears to have fallen into some measure of disrepute because of alleged excessive and disruptive exchange fluctuations. This is certainly evident in statements of the Bank of International Settlement, concerned mainly with the large swings in foreign exchange rates.

But in evaluating the system one must always ask: Good or bad relative to what?

Would a regime of fixed exchange rates have been sustainable during the past 5 years? The Bretton Woods system was abandoned not as a result of considered deliberations by central banks, although both Europe and the United States grew increasingly dissatisfied with it. Rather, it broke down under the onslaught of market forces that prevailed early in the decade. Since then the international economy was subject to continuous gyrations of almost unprecedented magnitude. Some causes of these gyrations were:

One, the booming demand for raw materials in 1973, leading to substantial advances in prices.

Two, the quadrupling of oil prices by OPEC in 1973–74, contributing to both the inflation and the recession in the following years.

Three, the need to divert massive resources to environmental clean-up and to the development of new energy sources.

Fourth, changes in the worldwide food situation, brought on by unfavorable weather conditions in the Soviet Union, Asia, and Africa in 1972–73, and the subsequent drastic improvement in food supply.

These and other factors combined with policy measures to bring about the stagflation of 1974. The worldwide recession in 1974–75 was the deepest and most prolonged since the war. Policy measures designed to promote recovery varied in intensity from one country to another, with the United States recovering faster than its trading partners.

These developments reflect, in part, differences in the tolerance of inflation between countries. In other words, existing differences between countries concerning the short-run unemployment—inflation tradeoff are magnified during substantial economic swings.

There is no way for a fixed exchange rate system to accommodate large differences between countries in the tolerance of inflation. A fixed exchange regime would have broken down several times during this period. We would have been living in a continuous international currency turmoil dwarfing the crises of the 1967–73 peiod.

It was this constellation of underlying economic difficulties that caused large fluctuations in exchange rates.

True, they were magnified by speculative activity. But both theory and experience suggest that speculation abounds under fixed exchange rates as well, and may even be more pronounced.

In short, the floating exchange rate system weathered the crises rather smoothly, relative to what would have been the case under an alternative regime. Only floating rates can accommodate the divergent preferences toward the short-run inflation-unemployment tradeoff that exists among nations.

A contrary view that has gained some currency in recent years is that associated with, or attributed to, Professors Mundell and Laffer. They assert that not only do exchange fluctuations fail to equilibrate the balance of payments, but they also contribute to worldwide inflation.

The argument runs roughly as follows: The law of one price guarantees that, given sufficient time for adjustment, and abstracting from transport costs, all internationally traded goods will command the same price everywhere. This applies to homogeneous and differentiated products alike.

Thus, a currency devaluation cannot, over time, change a country's prices relative to those of its competitors. Either its price would rise or foreign prices would decline until prices were fully equalized internationally.

Here Mundell and Laffer introduce a second supposition; namely, that the price ersponse to exchange rate adjustment is not symmetrical. Export prices, denominated in local currency, rise in the devaluing country, but import prices fail to decline in the revaluing one. This asymmetry is often referred to as the "ratchet effect."

As a consequence, the equalization of international prices is accomplished strictly through price increases in the devaluing country. Since in a regime of fluctuating exchange rates, some currencies depreciate and others appreciate over one time period, while the reverse tends to occur during some subsequent period, and because domestic price changes occur only in the depreciating countries and not in the appreciating ones, the net effect is a worldwide increase in the prices of traded goods. The fact that the emergence of worldwide double-digit inflation coincided with the introduction of generalized floating is used as evidence in support of the thesis.

Both links in the Mundell-Laffer argument can be questioned. First, there is no a priori reason for the law of one price to hold in the case of differentiated products. Even a brand name can account for a persistent price differential. And, in any case, it makes a con-

siderable difference whether the period required for price equalization following a currency devaluation is long or short. If it is protracted, then the argument that devaluation does not improve a country's competitive position holds only in the long run. Improvement could occur during the time in which the price equalization process takes place. And that may be sufficient for exchange rate adjustments to perform their traditional function.

Second, there is no a priori reason to expect a ratchet effect in the case of exchange rate changes. Even if internal prices are inflexible in a downward direction, import prices—expressed in terms of the home currency of a revaluing country—can decline following an upward adjustment in the exchange rate. Indeed, empirical studies have shown many instances of such price reductions. Apart from that, in an inflationary world it is necessary only that the appreciating country lower its rate of inflation, rather than reduce prices absolutely, for the ratchet to disappear.

Finally, it might be asked: What gives rise to exchange-rate fluctuations to begin with? According to the monetary approach to the balance of payments it is divergent rates of inflation, which in turn are caused by divergent growth rates in domestic money stocks. This takes us back to mainline monetarism, where inflation is a result of the growth in the money supply rather than a consequence of floating exchange rates.

In sum, both empirical evidence and theoretical analysis do not support the M–L thesis. The worldwide inflation of the past 5 years had its roots in a variety of fundamental factors, not related to generalized floating. The relation between floating rates and inflation is complex, and has been the subject of many an economic discourse.

On a simplified level, a floating rate can protect a country from inflation originating abroad, and can accommodate divergent inflation rates in many countries. On the other hand, it enables a country to inflate at home, freeing it from the balance-of-payments constraint, and would probably magnify domestically produced inflation by "bottling it up" within the country. But the rate of inflation is still determined by domestic policies, although there is, of course, transmission of inflation from one country to another.

European nations may be dissatisfied with the present-day system, first, because exchange fluctuations are too disruptive in small economies; and, second, because monetary integration is considered important for the European Community. Although the present European float may make sense as essentially a German currency area, monetary integration in the entire European Community appears premature at this time. This applies to the proposal to enlarge the joint float and to bring the major European countries within a range of fluctuations of 5 percent of each other. This would require substantial diminution of national sovereignty.

While the United States may wish to encourage European monetary integration, the pitfalls involved should be clearly recognized. What is most important is that the dollar should continue to float as freely as possible, whether relative to individual European currencies or relative to blocs of currencies floating jointly.

In sum the currency system that evolved over the past 5 years is superior to any fixed exchange rate regime. It weathered well the traumatic events in the international economy. The questions on the international agenda should be how to improve the present system rather than how to change it. Rules for central bank intervention in foreign exchange markets, IMF surveillance of such intervention, and greater international cooperation would all be useful. A movement toward broad currency zones may make the system more stable, but it is doubtful that such a movement is feasible at this time.

Thank you.

[The prepared statement of Mr. Kreinin follows:]

PREPARED STATEMENT OF MORDECHAI E. KREININ

Functioning of the International Currency System

(A) *Present-Day currency arrangements*

Since the introduction of generalized floating in March 1973, the international currency system has been a hybrid of four exchange rate regimes:

(a) Most major currencies, including the Japanese yen, the French franc, the British pound sterling, the Italian Lira and the Canadian dollar fluctuate (or float) on the foreign exchange market in response to supply and demand conditions. The float is not free however. Rather governments (or central banks) intervene on their respective foreign exchange markets to influence the exchange rate. This system is known as "managed" floats. In 1977 total intervention by the major central banks was approximately $100 billions, having risen from $73 billions in the previous year. For the most part intervention is conducted by buying or selling U.S. dollars in exchange for the local currencies. This is one reason why central banks maintain foreign currency reserves, and the overwhelming proportion of these reserves are in dollars.

(b) The currencies of five European countries: West Germany, the Netherlands, Belgium-Luxembourg, Denmark, and Norway (with Austria maintaining an informal association) are pegged to each other and float jointly, with a maximum of 2¼ percent between the strongest and weakest currencies in the group. They are known as the "Joint European Float" or the "snake". The composition of the "snake" has changed several times during the past five years. For example, France moved in and out twice and Sweden—an original member—withdrew in August 1977 and now floats independently. There were also several changes in the par value of the member countries.

Although an original impetus to the formation of the joint float was a desire for monetary integration in the European Community (EC), the composition of the snake does not coincide with that of the EC. The United Kingdom, France, Italy, and Ireland, members of the EC, do not belong to the joint float, while Norway (and until August 1977, Sweden) is a member of the "snake" but does not belong to the Community. There has been no long term commitment on the part of EC members to the joint float, and that statement applies even to France who pays a great deal of lip service to the idea of monetary integration in the EC.

Members of the snake are all countries with close economic ties to Germany, and consequently the snake today can be viewed as a German currency area: "The various smaller countries in the snake have found it convenient to tie their currencies to a neighbour which is their principal trading partner and which has managed in recent years to maintain the real value of its currency more than any other major capitalist country. But the governments and monetary authorities of these small countries have preserved their monetary freedom. They can certainly leave the snake when they want to."[1]

(c) Many developing countries peg their currency to that of a major industrial country—often, their main trading partner—and fluctuates with it. The dollar is the most popular such currency, followed by the French franc and the pound sterling. But such a link does not eliminate exchange fluctuations for the

[1] W. M. Corden, "Inflation, Exchange Rates, and the World Economy," Chicago, the University of Chicago Press, 1977, p. 141.

peggers. If the Thai baht, for example, is pegged to the dollar, it necessarily fluctuates (along with the dollar) in terms of the yen and all other major currencies. As long as the major currencies are floating, LDC's currencies necessarily fluctuate in terms of some of their main trading partners. Such fluctuations are unavoidable. For a variety of alleged reasons (some valid and some not) LDC's appear to prefer fixed exchange rates,[2] and therefore dislike the present system.

(d) A score of LDC's peg their currencies to a basket of currencies. The most popular basket is the Special Drawing Rights (SDR) of the International Monetary Fund (IMF)—computed as a weighted average of the 16 currencies.[3] But some peg to a tailor made basket, which contains the currencies of their main trading partner. Stabilization of import prices is one objective of basket pegging. It should be emphasized that the SDR is a unit of account as well as a reserve asset. But since it is "held" only by central banks and not by the general public or by private institutions, it cannot be used as an intervention asset in pegging operations. Consequently basket peggers tend to use the dollar as an intervention currency. But since the dollar-SDR rate is computed and published daily by the IMF, the dollar exchange rate of the pegged currency can be adjusted to reflect a stable exchange rate vis-a-vis the SDR.

(B) Position of the U.S. dollar

With all main currencies floating independently or jointly, the dollar has become a floating currency as well. The United States was thus freed to a certain extent from the straight-jacket imposed on it by the Bretton Woods system, under which other countries determined the exchange value of the dollar. But this freedom is far from complete. Since the float of other currencies is heavily managed, and because the U.S. dollar is the currency with which central bankers intervene to control their respective floats, they indirectly affect the exchange value of the dollar. Thus while the United States itself holds foreign currency intervention to a minimum—a laudable practice that should be continued—intervention by foreign countries prevent the dollar from floating freely. It is still the best policy for this country to continue keeping "hands-off" the market and permitting the dollar to find its own level.

In addition to being the intervention currency, used by central bankers in a system of managed floats, the dollar is the main transaction currency for the private sector. Dollar deposits in foreign banks have been estimated at around a quarter of a trillion. Finally, for a variety of purposes the dollar is used as the international standard of value and unit of account.

During the past year much concern has been expressed over the 15 to 25 percent depreciation of the dollar relative to the German mark, Japanese yen, and Swiss franc. There exists a "traditional" and a "monetarist" explanation of this phenomenon. The traditional economist would focus on the $31 billion U.S. trade deficit that adds to the supply of dollars overseas, thereby depressing their price. That is exacerbated by dollar sales on the Euro-dollar markets, instigated by expectations of decline in the value of the dollar, and the desire of holders to avoid losses: With so many dollars floating overseas, even mariginal sales can depress their price. In turn the U.S. trade deficit is explained partly by large oil imports and in part by the fact that U.S. growth is real GNP and U.S. inflation were double their rates in Germany and Japan—a result of diverse preferences concerning the short-run inflation-unemployment trade-off.[4]

In contrast, monetarists devote exclusive attention to the so-called "official settlements" balance. Their explanation, embraced editionally by the Wall Street Journal, centers on the expansion of money supply in the United States relative to the increase in money demand, and the resulting "spillover" of the excess money to foreign currency markets. It is that "spillover" that depresses the exchange value of the dollar.

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[2] See M. E. Kreinin, "Living With Floating Exchange Rates: A Survey of Developments 1973–77," Journal of World Trade Law, November/December 1977, pp. 514–536.

[3] The basket was first introduced on July 1, 1974, and its composition reflected the importance of countries in the 5-year period 1968–72. The country composition as well as the weights, were changed on July 1, 1978, with the revised basket being based on statistics for 1972–76. In particular, the currencies of Iran and Saudi Arabia were added to the basket, while those of Denmark and South Africa, were dropped. The weight of the U.S. dollar remained at 33 percent. The next revision in the composition of the basket is scheduled for July 1, 1983, to be based on statistics for 1977–81. See Finance and Development, June 1978, p. 5.

[4] For details see M. E. Kreinin, "How Buck Lost Its Bang", Congressional Record—Extension of Remarks, Apr. 25, 1978, p. E 2114.

Regardless of the explanation, the dollar depreciation has made American goods and services more competitive both here and abroad. And it has changed the relative profitability between investing abroad and exporting from stateside facilities in favor of the exporting. For foreign corporations, the balance has been tipped in the opposite direction, encouraging foreign investments in the United States. Both trends are welcomed as salutory ingredients of the balance of payments adjustment mechanism. The unfavorable aspect of dollar depreciation is that it contributes to domestic inflation. Down the road there is the added possibility that producers of truly international commodities may switch their pricing unit from the dollar to, say, the SDR. This fear has been expressed with respect to the OPEC's pricing of oil. But the current oil glut on the international market acts as a restraint to such action. Another reason for that restraint is the fact that OPEC countries have piled up huge amounts of dollar assets. Consequently they stand to lose from any action that would trigger a further decline in the value of the dollar.

To the monetarists, balance of payments adjustment works through a different mechanism. It will come about only when the Federal Reserve lowers the rate of growth in the money stock to the rate of growth in money demand. The depreciation of the dollar contributes to this process by raising domestic prices in the U.S. and thereby increasing money demand.

But in all probability some monetarists would join "traditional" economists in insisting that the United States avoid intervention in the foreign exchange markets and permit the dollar to find its own level. That indeed is what the Government has done so far. Pressure from Europe and Japan on the United States to prop up the dollar by market intervention should be resisted. It is not in the U.S. interest to offset fundamental trends in the foreign currency markets. Nor is it in the U.S. Government interest to assume the exchange risk involved in securing foreign currencies for the purpose of market intervention.

In a very real sense the dollar depreciation is merely a symptom of domestic developments. Policy initiatives should address the problems of energy, inflation, and unemployment, and permit the dollar exchange rate to be determined by market forces.

(C) IMF practices and charter

Only recently did the International Monetary Fund modify its charter to accommodate the diverse currency regimes now in existence. Floating exchange rates are now permitted under the modified charter. But since practically all floats are "managed" to a greater or lesser extent, a major issue on the IMF agenda concerns rules to govern central banks' intervention in the currency markets. If and when such "do" and/or "don't" rules are promulgated, the IMF would play a role in enforcing them through an agreed-upon form of "surveillance".

Among other changes in IMF practices has been the downgrading of the role of gold and the upgrading of the role of SDR's in the system. Although only 10.5 billion SDR's have been created, the SDR is used as a unit of measurement, since it is now valued as a weighted average of 16 important currencies.

Along with other organizations the IMF introduced the concept of an "effective exchange rate". Because all major currencies are floating, it is not possible to determine changes in the value of a currency simply by observing changes in bilateral rates. Thus while the dollar depreciated considerably relative to three currencies (D.M., F.F., and S.F.), it depreciated much less relative to other European currencies, and appreciated considerably relative to the Canadian dollar (Canada being our main trading partner). The change in the value of the dollar is a weighted average of these bilateral movements. And it is this weighted average change that is captured by the index of an "effective exchange rate". Bilateral trade flows with each trading partner (exports, imports, or the two combined) can serve as weights, as can the global trade value of each trading partner.

Alternatively the IMF derives the weights for its index from a special model designed to measure the impact of exchange rate changes on the home country's trade balance. Because the weighted average depends on the weights chosen, several effective exchange rates indexes are in use, differing from each other by the weights employed. It is however instructive that in 1977 the dollar depreciation relative to all currencies was around 5 percent and not 20 percent, as it is sometimes alleged.

(D) Evaluation of the floating exchange rate system

In the late 1960's and early 1970's most academic economists and many "men of affairs", favored the abandonment of the adjustable peg system in favor of floating exchange rates. Now that generalized floats have been in force for several years the system is being criticized as "unstable" by many observers. Currency fluctuations are viewed as "excessive" as well as "erratic". In Europe the system appears to have fallen into some measure of disrepute. This is certainly evident in recent statements of the Bank of International Settlement in Basel, concerned mainly with the large swings in foreign exchange rates.

But in evaluating the system one must always ask: good or bad relative to what? The Bretton Woods system was abandoned not as a result of considered deliberations by central bankers, although both Europe and the United States (the center country) grew increasingly dissatisfied with it—each for its own reasons.[5] Rather it broke down under the onslaught of market forces that prevailed early in the decade. Since then the international economy was subject to continuous gyrations of almost unprecendented magnitude. Some causes of these gyrations were:

(a) The booming demand for raw materials in 1973, leading to substantial advances in prices.

(b) The quadrupling of oil prices by OPEC in 1973–74, contributing to both the inflation and the recession in the following years.

(c) The need to divert massive resources to environmental clean-up and to the development of new energy sources, cutting into the standard of living (as commonly perceived) of vast segments of society.

(d) The changes in the world wide food situation, brought on by unfavorable weather conditions in the Soviet Union, Asia and Africa in 1972–73, and the subsequent drastic improvement in food supply.

These and other factors, combined with policy measures to bring about the stagflation of 1974. The world wide recession in 1974–75 was the deepest and most prolonged since the war. Its effects are still being felt in many countries. Policy measures designed to promote recovery varied in intensity and duration from one country to another, with the United States recovering faster than its trading partners. These differences reflect in part differences in the tolerance of inflation between countries. In other words, existing differences between countries in their preferences concerning the short-run unemployment—inflation tradeoff are magnified during substantial economic swings. There is no way for a fixed exchange rate system to accommodate large differences between countries in the tolerance of inflation. A fixed exchange regime would have broken down several times during this period. We would have been living in a continuous international currency turmoil dwarfing the crises of the 1967–73 period.

It was this constellation of underlying economic difficulties that caused large fluctuations in exchange rates. True, they were magnified by speculative activity. But both theory and experience suggest that speculation abounds under fixed exchange rates as well, and may even be more pronounced.

In short, the floating exchange rate system weathered the crisis rather smoothly, relative to what would have been the case under an alternative regime. Only floating rates can accommodate the divergent preferences toward the short-run inflation-unemployment trade off that exists among nations.

(E) The Mundell-Laffer thesis

A contrary view that has gained some currency in recent years is that associated with Professors Robert A. Mundell and Arthur B. Laffer. They assert that not only do exchange fluctuations fail to equilibrate the balance of payments but they also contribute to worldwide inflation. The argument runs roughly as follows: The law of one price guarantees that, given sufficient time for adjustment (and abstracting from transport costs), all internationally traded goods will command the same price everywhere; this applies to homogenous and differentiated products alike. Thus, a currency devaluation cannot, over time, change a country's prices relative to those of its competitors; either its prices would rise or foreign prices would decline until prices were fully equalized internationally.

[5] The United States—primarily because it had no control over the dollar exchange rate; and Europe—primarily because it was saturated with dollar reserves, because its confidence in the dollar declined, and because it viewed the system as causingi mported inflation from the United States.

Here, Mundell and Laffer introduce a second supposition—namely that the price response to exchange rate adjustment is not symmetrical. Export prices (denominated in local currency) rise in the devaluing country, but import prices fail to decline in the revaluing one. This asymmetry is often referred to as the "ratchet effect". As a consequence, the equalization of international prices is accomplished strictly through price increases in the devaluing country. Since, in a regime of fluctuating exchange rates, some currencies depreciate and other appreciate over one time period, while the reverse tends to occur during some subsequent period, and because domestic price changes (i.e., increases) occur only in the depreciating countries and not in the appreciating ones, the net effect is a world-wide increase in the prices of traded goods. Through substitution that increase spreads to non-traded goods as well. The fact that the emergence of world-wide double digit inflation coincided with the introduction of generalized floating is used as evidence in support of the thesis.

Both links in the M–L argument can be questioned. First, there is no a priori reason for the law of one price to hold in the case of differentiated products. Even a brand name can account for a persistent price differential. The elasticity of substitution between different suppliers of a manufactured product having similar characteristics is less than infinite, even in the long run. And in any case, it makes a considerable difference whether the period required for price equalization following a currency devaluation is long or short. If it is very protracted, then the argument that devaluation does not improve a country's competitive position holds only in the long run. Apart from the question of how long the long run is, it is clear that improvement could occur, and persist, during the years in which the price equalization process takes place. And that may be sufficient for exchange rate adjustments to perform their traditional function of improving the country's competitive position and its balance of payments. By the time the relevant period was over, other exchange rate changes would undoubtedly occur.

Second, there is no a priori reason to expect a ratchet effect in the case of exchange rate changes. Even if internal prices were inflexible in a downward direction, import prices (expressed in terms of the home currency of a revaluing country) can decline following an upward adjustment in the exchange rate. Indeed, empirical studies have shown many instances of such price reductions, on both a quarterly and an annual basis, in the postwar period. Apart from that, in an inflationary world it is necessary only that the appreciating country lower its rate of inflation, rather than reduce prices absolutely, for the ratchet to disappear.

Finally, it might be asked: what gives rise to exchange-rate fluctuations to begin with? According to the monetary approach, it is divergent rates of inflation, which in turn are caused by divergent growth rates in domestic money stocks. This takes us back to mainline monetarism, where inflation is a result of the growth in the money supply rather than a consequence of floating exchange rates.

In sum both empirical evidence[6] and theoretical analysis do not support the M–L thesis. The worldwide inflation of the past five years had its roots in a variety of fundamental factors, not related to generalized floating. The relation between floating rates and inflation is complex, and has been the subject of many an economic discourse. On a simplified level, a floating rate can protect a country from inflation originating abroad, and can accommodate divergent inflation rates in many countries. On the other hand it enables a country to inflate at home, by freeing it from the balance of payments constraint, and at the same time, it can magnify domestically-produced inflation by "bottling it up" within the country. But the rate of inflation is still deterimned by domestic policies.

(F) The European countries

In the final analysis it is up to each country to decide on its exchange rate regime. Viewed rationally, that regime should be selected which would minimize the cost of adjustment to balance of payments disequilibria. For the United States, with its huge and highly diversified economy, the cost of adjustment is less via exchange rate changes than via domestic policy measures. The dollar should clearly continue to float. And this country should not get itself back into the Bretton Woods straight-jacket, where it cannot change the exchange value of the dollar.

[6] See M. E. Kreinin "The Effect of Exchange Rate Changes on the Prices and Volume of Foreign Trade" International Monetary Fund staff papers, July 1977, pp. 297–329, and the literature cited therein.

But the relative cost of adjustment is different for the European countries. Certainly small countries may find that the cost of adjustment to external disequilibria is lower via domestic policies than via exchange rate changes. It would then be rational for them to peg to each other, and perhaps to one major country, and float jointly. That may explain the European snake.

But what of the larger members of the EC? If past experience is any guide, they regard the cost of adjustment to external disequilibria to be less via exchange rate changes than via domestic policies. That judgment corresponds well to empirical analyses of the subject. They therefore opted out of the joint float. Given their divergent preferences toward the short-run inflation-unemployment trade-off, opting out was their only alternative. The only way a Community wide "snake" can succeed is by removing or at least minimizing intra-area balance of payments disequilibria, and thereby minimizing the need for any adjustment policies. But that would require at the very least a highly coordinated monetary policy, reasonably free factor mobility, and consequently substantial diminution of national economic sovereignty. Only immense dissatisfaction with the present exchange rate regime may lead the EC countries to agree on such a course of action.

Still, dissatisfaction abounds. And proposals surfaced recently for "relinking" the EC currencies. A long standing proposal calls on the EC to issue a "parallel currency", the Europa, which would circulate along with national currencies. National currencies would be pegged to the Europa at a fixed rate and would consequently be pegged to each other. With time—it is hoped—the Europa would assume increasing importance relative to national currencies.

For the time being however, the Europeans are considering less far reaching alternatives. The following quote from the Wall Street Journal (June 13, 1978, p. 13) summarizes the four proposals currently under active consideration:

"One of the options being shaped at the BIS is to keep the snake as it is but to create a wider margin of about 4 percent to 5 percent, within which such weaker Common Market currencies as the British pound and Italian lira might float and with their governments under less strict requirements to enforce the limit.

"The second option would also preserve the present snake but ask the other countries to stabilize their currencies in terms of an "effective weighted average" of currencies of their trading partners, or perhaps against a basket consisting only of the dollar and German mark.

"The third would scrap the snake and have all Common Market currencies limited to a 1 percent range above and below a group of community currencies, while the fourth would create "a European IMF" to receive deposits of part of Common Market member reserves and of some of their currencies, against which they could draw when they need extra funds for intervention."

If European financial integration proves successful, the world could evolve into a system of three currency areas: the dollar zone, the European zone, and the yen zone. Stable exchange rates will exist within each zone, while currencies of each zone would float jointly against those in the other two zones. Considering the vast size of each area, and the degree of economic interdependence of countries within each zone, such a system may prove rather stable. However, none of the four options are likely to work unless EC countries exhibit greater convergence in matters of domestic economic policies and tolerance of inflation. All that the EC has accomplished to date in this sphere is the creation of an accounting unit (The European Unit of Account), whose value is calculated as a weighted average of the EC currencies. While the United States may wish to encourage European monetary integration, the pitfalls involved in such steps should be clearly recognized. What is most important is that the dollar should continue to float, as freely as possible, whether relative to individual European currencies or relative to blocs of currencies floating jointly.

(G) Summary

The currency system that evolved over the past five years is clearly superior to any fixed exchange rate regime. It weathered well the recent traumatic events in the international economy. True, floating rates require an adjustment on the part of business enterprises to protect themselves against possible losses from currency fluctuations. But such protection is usually available on the forward

exchange markets. There is no evidence that the volume of world trade and investments has declined because of floating exchange rates. Even LDC's tend to exaggerate the problems and understate the benefits accruing to them from this system.

It should be the policy of the United States to maintain a floating dollar, and insure that the float be as "free" as possible. The questions on the international agenda should be how to improve the present system rather than how to change it. Rules for central bank intervention in foreign exchange markets, IMF surveillance of such intervention, and greater international cooperation would all be useful. A movement toward broad currency zones could make the system more stable, but it is doubtful that such a movement is feasible at this time.

Representative BOLLING. Thank you for an interesting statement. Mr. Solomon, please proceed.

STATEMENT OF ROBERT SOLOMON, SENIOR FELLOW, THE BROOKINGS INSTITUTION [1]

Mr. SOLOMON. Thank you, Mr. Chairman.

I am pleased to participate in this midyear review of the economy before the Joint Economic Committee. You have asked that I focus on how world recovery may be facilitated and on the appropriate roles of surplus and deficit countries in the adjustment process.

Mr. Chairman, I submit that the solution to the problems you have posed is quite straightforward. The major reason for both the slow growth of the world economy and the large deficit in the U.S. trade balance may be found in the stagnation that has characterized the economies of Europe and Japan since the latter part of 1976.

An acceleration in domestic demand in Europe and Japan is the most important condition for achievement of healthier growth of the world economy and at the same time for better balance-of-payments adjustment. The result would be not only an increase in real income and a decline in unemployment in Europe and Japan, but also reduced threats of protectionism, an improvement in the position of developing countries, and perhaps greater political stability in some of the countries of southern Europe.

I might note, Mr. Chairman, that this statement was prepared before, but is being presented after, the Bonn summit meeting. Nothing would please me more than that my statement would turn out to be a repeat of the Bonn communique. I am not sure that it is.

STAGNATION IN EUROPE AND JAPAN

Let me first provide a little documentation for the statement that Europe and Japan have been stagnating. Taking the European industrial countries as a group, we find that industrial production in the first quarter of this year was barely higher than at the prerecession peak in 1974. There is virtually no increase in industrial production over a 4-year period. During the year from the first quarter of 1977 to the first quarter of 1978, industrial production actually fell slightly.

More recent data are available for individual countries. In Germany, industrial output in April and May of this year was only 1 percent higher than a year earlier. In Italy, Belgium, and the Nether-

[1] The views expressed in this statement are the sole responsibility of the author and do not purport to represent those of the Brookings Institution, its officers, trustees, or other staff members.

lands production is lower than a year ago. France, after showing a falloff in output during 1977, has experienced an increase in industrial production in recent months.

A similar story may be told of Japan. Industrial production barely crept up from late 1976 to late 1977. But from October through May it increased more than 6 percent.

The slow rates of economic expansion during 1977 were reflected in the volume of imports by these countries. Thus from the fourth quarter of 1976 to the fourth quarter of 1977, import volume in absolute terms fell in France, Italy, United Kingdom, and the Netherlands. In Japan, the physical volume of imports increased only a little over 1 percent and in Germany 3.5 percent. Meanwhile, the United States, where economic activity was moving ahead rapidly and oil imports were going up, import volume increased 7.3 percent—1978–I to 1978–I. It is not surprising, therefore, that the U.S. trade balance moved sharply into deficit in 1977.

In the early months of 1978 the volume of imports into most major European countries and Japan appears to have speeded up. This should begin to show up in U.S. exports soon. But the fact remains that, aside from France, most European countries, and notably Germany, have not yet moved out of the condition of stagnation that I have described.

Let me say a word about the effect of stagnation.

The stagnation has brought high levels of unemployment in Europe. Unemployment is actually higher now than it was at the trough of the 1975 recession.

The stagnation has also brought pressures for import barriers and cartelization in Europe, as is well known.

And the stagnation has, as noted, kept imports low while producers have had strong incentives to find markets abroad for what they could not sell at home. This so-called export push has been especially evident in Japan and Germany.

In these circumstances, most European countries and Japan have experienced either a reduction in balance-of-payments deficits or an increase in surpluses on current account. In the case of Germany, Japan, and Switzerland, the combined surplus on current account—goods, services, and private transfers—came to more than $23 billion in 1977, an increase of $8 billion over 1976. Most of that was accounted for by Japan. The deficit of France fell sharply, while Britain and Italy shifted from deficit to surplus.

The major counterpart of this movement toward surplus of the current account positions of the industrial countries of Europe and Japan was, of course, a sharp increase in the U.S. deficit on current account. In addition, as is well known, the increase in U.S. oil imports in 1977 added to the American deficit.

These large changes in current account position had an effect on exchange rates. As we know, the Japanese yen began to move up early in 1977 as Japan's surplus grew rapidly. In the fourth quarter of 1977 the Deutsche mark began to move up rapidly, pulling other European currencies with it.

This appreciation of these currencies in Europe and Japan, and the corresponding depreciation of the dollar against them, occurred even though interest rates in the United States were rising relative to inter-

est rates abroad. Clearly, expectations of further exchange rate movements outweighed the pull of higher interest rates in determining capital flows.

While the exchange rate relationship between the dollar and the European currencies has been more or less stable since March, a fact that has not been widely recognized, the yen has continued to move up as the perceived balance-of-payments surplus in Japan got bigger and bigger. Thus the stagnation in the other industrial countries has resulted in exchange rate movements that will, when they have their effect on trade flows, aggravate the stagnation.

Meanwhile the exchange rate movements are having more immediate price effects. The rate of inflation, especially in Germany, Japan, and Switzerland, has been dampened significantly by the combined impact of slack demand and falling domestic currency prices of imports, as Professor Dornbusch pointed out.

In the United States just the opposite has occurred. The combination of vigorous economic expansion and depreciation of the exchange rate has increased the underlying rate of inflation.

I come finally to policy implications. It follows from what I have been saying that the European countries and Japan need to stimulate their economies by increasing domestic demand.

Johannes Witteveen, until recently managing director of the International Monetary Fund, has set forth a sensible policy prescription. He calls for coordinated expansion by the industrial countries. The United States would experience some slackening in its rate of expansion, as is widely expected. But most other industrial countries would accelerate their growth, and by more than 1 percent, incidentally.

Germany, for example, would speed up from an estimated 3.1 percent in 1978 to 4.5 percent in 1979–80. France would do the same. Italy's real GNP would accelerate from 2.6 percent expansion in 1978 to 4 percent in 1979–80, and so on. The smaller industrial countries, apart from the seven that met in Bonn, would double their rate of expansion from a mere 2.2 percent in 1978 to 4.5 percent in 1979–80.

Now, Mr. Witteveen is not a wild man, Mr. Chairman, and it seems to me when he makes an observation, we should pay attention to it.

Further, according to Mr. Witteveen, "There would now appear to be quite a number of countries in which, because of the accumulation of economic slack and the blunting of inflationary expectations, the risk of exacerbating inflation would be minimal if cautious and well-designed policies of expansion are pursued."

On this basis, Mr. Chairman, it is possible to bring about a healthier rate of expansion of the world economy and a reduction in balance-of-payments disequilibria without worsening the problem of inflation.

Thank you.

Representative Bolling. Thank you, Mr. Solomon. I think this is an interesting a group of papers on this subject as I have ever heard, and I wish that we had been able to induce every Member of the House to listen to them.

Congressman Reuss.

Representative Reuss. Thank you, Mr. Chairman.

Let's talk about the summit meeting, the communique of which we have all seen. I would like to run down the panel and ask for your

views. I would comment, first, however, that while Germany seems to have made some kind of a commitment toward more active growth rates, the same doesn't seem to be true of Japan.

What they seem to have said is that "we will let down some of our barriers on imports," which did not seem adequate. I think I will just go down the panel and ask, if you care to give them, if you have had a chance to look at this morning's paper—if you would care to give us your views on the accomplishment of the summit. There is nothing disastrous there. They didn't do anything wrong, but after all, these countries have been promising more growth for some time.

Let's start with you.

Mr. DORNBUSCH. The striking effect of the summit is, of course, the hijacking agreement. The economic effects don't dominate. There was a Japanese commitment, for example, to limit the volume of the exports to last year's. We can think of Japan as having an increase of 10 percent in export prices, and that would reduce their export in volume terms by perhaps 5 percent. If the world economy grows by 5 percent, that would raise their exports by 5 percent. That means they have to do nothing to keep exports constant.

From the German statement, we don't know whether the stimulus or outcome is 1 percent of GNP, and we don't know whether it is real or nominal GNP. If it is nominal GNP, perhaps they are going to contract.

I believe a lot of cosmetics have gone into this. Before, the outlook was one of antagonism, and now it looks as if there is more substantial concern and an agreement that something perhaps should be done. But I don't think anything has substantially changed.

Each one said they would go home and submit to their legislatures what they had, in fact, agreed to do before. There is, perhaps, more of a commitment to keeping the dollar from depreciating than one might want to see. The United States has not undertaken that, but one reads that there was pressure to that effect.

I see a substantial buildup of U.S. commitments. I think the pressure of Europe is on oil, but what is behind it substantially is dollar stabilization. I think we should be worried about that.

Representative REUSS. For instance, the Japanese did not promise to take steps to build a sewer system for the city of Tokyo, which now uses the honey wagon as a method of disposal. That would help the world, would it not?

Mr. DORNBUSCH. They did not promise any substantial liberalization of imports. Japan remains a heavily protected country. Japan still practices exchange control on tourism and remittances.

Perhaps the best way to look at the rest of the world attitude is to ask why they care so much about U.S. oil imports. There are two explanations. If the United States used less, the stock wouldn't be so rapidly depleted. Of course, in Germany and Japan the price of oil has been falling with their appreciation. The real reason though is that if the United States had not so large an oil bill, and if that changed the current account substantially, then the dollar wouldn't be depreciating and then the United States wouldn't be gaining competitiveness at the expense of Japan and Germany and France and Italy. I think that is the spirit in which one has to see that. They

have said that the United States should be restricting oil imports, not that we should stop foreign small cars.

Representative REUSS. Neither, one would note, was there any reference in the protestations of added growth such as in the case of Germany to that kind of added growth which is best suited to solving the problem you brought out in your paper, that added growth that is achieved through capital goods and machine tools is likely to help the United States, because we export some. Capital growth achieved by building autobahns isn't likely to do the same.

Mr. DORNBUSCH. The optimism I have for the coordinated expansion is limited. It would take in the first instance the form of public works. We must not forget that all these countries have a much larger state enterprise system that controls the awards of contracts. It takes a long time before reaching imports. Finally by the time people receive their income and decide to buy U.S. goods, can they get them? I think expansion abroad is much more controlled than the U.S. expansion.

Mr. SOLOMON. From the discussion that has been going on in Germany, my impression is that if the German authorities act in a stimulative matter, they are most likely to cut taxes fairly soon, and probably partly on business and partly on consumers, and that would have an effect in the desirable direction.

Representative REUSS. Neither, so far as I could see, was anything said about principles of surveillance of intervention. We are still back in the rather circular disorderly conditions market. You intervene if there are disorderly conditions, or——

Mr. KREININ. Surveillance is turning out to be a difficult issue, and there really is no agreed procedure, either in the IMF or anywhere else, as to what indicates important intervention and what rules of surveillance ought to be adopted. There are proposals in the professional literature, but there is nothing that has been agreed upon, and many of the proposals for surveillance require some sort of notion of what the longrun equilibrium exchange rate is, as though there were some central authority, and as though we had an agreed-upon theory that would tell precisely what the long-range equilibrium exchange rate is, and then surveillance would prohibit policies to push the exchange rate away from that.

We really don't have a good mechanism for determining this longrun equilibrium exchange rate at this point, so I perceive of surveillance as a typically difficult and controversial topic before we even get to political discussions and to a powerplay between the countries.

I want to add a few points to the question of the trade balance. I agree with the other participants. My prepared statement reflects concern about the U.S. trade deficit. It is just that the summary statement focuses on what has been requested by the committee staff.

I would like to raise a couple of points. First of all, in the past, every time Japan undertook to do something, it was to increase the imports of raw materials—in other words, Japan would stockpile raw materials, which is what it imports anyway. In the next 5 years they will import and stockpile raw materials for the next 10 years while in the following 5 years they wouldn't need any raw materials. In other words, there is no real, fundamental change in the Japanese pos-

ture with respect to control of foreign exchange, as Mr. Dornbusch mentioned, which I think is true. Domestic taxes and imports of manufactured products are also included.

What we would like to see Japan do is import more manufactured products rather than continuously pile up raw materials. I think that is crucial. I believe the Japanese growth rate is crucial to any kind of agreement. And the United States ought to bring its full leverage to bear, insisting on a higher growth rate in Japan and Germany, because it is in their interest as well as ours.

Let me also add that there is some evidence that if Japan and the United States grew at precisely the same rate, Japan would develop a surplus and we would develop a deficit because of the differential response of trade to growth of imports.

There are some studies to that effect, and they suggest this differential response, that if the United States and Japan both grew at 6 percent, the United States would develop a deficit and Japan would develop a surplus. That means that Japan ought to grow faster than the United States to attain and maintain equilibrium.

One point with respect to the LDC's. I agree with Mr. Dornbusch. One reason for the upsurge of protectionism in the United States has been deep penetration of imports, not only from Europe and Japan—where they are concentrated in highly visible industries such as steel and automobiles rather than spread across the board. It is this visibility that brings forth a sort of protectionist feeling, I am sure on the Hill and elsewhere. But also the increase in imports from LDC's. I think there is no question about that penetration, which, incidentally, is a favorable development.

LDC growth rates have increased. It is no longer true to say that the rich are getting richer and the poor, poorer, because the LDC growth rates are higher than the DC growth rates.

In several instances where I appeared on public panels with representatives of the U.S. labor movement, they suddenly started mentioning the general system of preferences, the GSP. On these occasions, my first reaction was that of surprise. I thought I was the only one who knew about the GSP. I didn't realize that it became sort of common knowledge.

To me it reflects the concern of U.S. labor with import penetration from underdeveloped countries.

Now, that does not concern me from the point of view of global U.S. interests, because the United States does have an interest in promoting economic development. However, for a long time I have been concerned with the lack of reciprocity between the industrial and the underdeveloped countries when it comes to trade negotiations. In other words, what happened at GATT is that the LDC's, so to speak, sit on the sidelines and collect the crumbs. They get the benefit of whatever is negotiated among the DC's without themselves having to reciprocate.

One effect of this procedure is that LDC's don't get many concessions on products that are being exported to them, and they complain about it. But it has another effect.

The LDC's subject themselves to extreme measures of protection in their economies, which interfere with their efficiency and their own development progress. Those LDC's that have changed their import

regime and switched to some measure of export promotion as against import substitution to the hilt, have grown faster.

So there happens to be a convergence of interests, on the part of the United States and Europe, on the one hand, and on the part of the LDC's, on the other hand, to induce the LDC's to come to the negotiating table and offer concessions.

In other words, to me the action paragraph of the statement Mr. Dornbusch made, that penetration by the LDC's is a problem, is that they should also offer concessions in GATT negotiations. That would be in both the interests of the industrialized and the developing countries.

Representative REUSS. My 10 minutes have expired. Maybe I should subside and come back to this.

There are some other questions I want to ask Mr. Solomon, and then Mr. Dornbusch has another point.

Representative BOLLING. Congressman Mitchell.

Representative MITCHELL. Thank you, Mr. Chairman.

Is the dollar overvalued or undervalued? Quite frankly, in this rather esoteric area, I am not even sure what factors enter into a determination as to whether the dollar is overvalued or undervalued. I raise the question because it seems to me that whether it is or is not, whether it is overvalued or undervalued, obviously whatever the condition is, it is going to accelerate intervention in the exchange rates. I guess that is a three-part question.

Is it or is it not overvalued or undervalued, and how do you go about determining whether these two conditions obtain, and what factors are brought into that decision; and whether it is overvalued or undervalued, will this not accelerate intervention in the exchange rate?

Mr. SOLOMON. Congressman Mitchell, it seems to me, if I may, I suggest that you now ask that question——

Representative MITCHELL. It is a good question.

Mr. SOLOMON. You can't expect a meaningful answer to it. No one can tell you whether the price of the dollar is overvalued or undervalued, just as they can't tell you whether the price of tomatoes is overvalued or undervalued. It depends on a whole variety of criteria.

Part of the trouble with the international monetary system in the past was that people had a notion that you could determine the appropriate value and exchange rate, and stick to it, and that system broke down. We are now in a system where that question is, in my view, simply not answerable, and therefore it doesn't make sense for countries to engage in sustained intervention in an attempt to maintain what they—or what somebody—regard as an appropriate value for the currency.

I think I take a little bit of comfort from the communique, which I have just hurriedly looked at. As I read it, it seems to me consistent with what I just said. It says that exchange rates depend upon underlying conditions in the various countries. Those conditions obviously change over time. Therefore, there is no fixed value for exchange rates.

They do talk about combating disorderly conditions, as they have done before.

Mr. DORNBUSCH. Let me try to answer somewhat differently. Of course, it is not enough to say that the U.S. dollar at present is overvalued, but I think there is reason to believe that this, in fact, is true.

First, there has been substantial intervention, not of the disorderly market kind, but dramatic dollar buying. The United States ran a $35 billion sale last year. Central banks were buying dollars to the tune of $35 billion. They haven't been getting rid of it, nor have their dollar holdings declined over the past 10 years.

There is a systematic pattern of U.S. intervention, which as of the end of April had reached $1.8 billion. If the United States were to pay off their liabilities now, it would make an $85 million loss. That is a rough calculation. It may be $60 or $100 billion, but the numbers that are shown on actual realized losses show profits consistently.

So the first argument is that there has been strong intervention, and dollar buying by the rest of the world. That is an indication that the dollar may be overvalued. The second is a movement in Europe toward monetary integration, which is really a movement, if you like, by Germany to allow the soft currency countries to come in and keep the mark from appreciating. I think this is, in part, a means to compensate for the dollar's present overvaluation.

Third, what would the world look like at a full employment pattern of trade and payments? I think the United States would have to have a depreciation in the real exchange rate relative to the rest of the world. The United States cannot achieve a depreciation relative to LDC's.

The only way the United States can, in effect, achieve a real depreciation is relative to other industrialized countries, and that means a movement of the nominal exchange rate relative to the mark area and the yen.

I have made that point before, and I think we have to get accustomed to it, that if the mark appreciates by 15 percent, it makes very little difference to the U.S. real exchange rate. The large exchange rate movements we observe are attempts by the market to get the real U.S. relative price structure right in the face of declining competitiveness.

We shouldn't be surprised by that depreciation, and we certainly shouldn't enter agreements with Germany and Japan to peg the dollar at its current level. Exchange rate movements have to take effect and restore U.S. competiveness. That is the only way to redress our current account.

Mr. KREININ. First of all, on the extended intervention in 1977, total global intervention has been estimated at $100 billion. The year before it was about $70 billion. I can't remember the exact figure.

So we are talking about substantial intervention to keep the dollar from depreciating. There is no question that the broader European snake will do more of that; 1977 centered attention on the depreciation of the dollar relative to three currencies, the mark, the Swiss franc, and the yen. It is relative to those that the dollar came down by 20 or 25 percent.

The effective exchange rate of the dollar—in other words, the weighted average change in the dollar relative to all U.S. trading partners, weighted by the importance of each trading partner in U.S. trade—came down only by 4 percent.

Remember that Canada is our major trading partner, and relative to Canada the United States dollar appreciated by about 10 percent. So the reason why the dollar depreciated so much against these three cur-

rencies is because it is through that movement we attained a 4-percent overall depreciation.

A better way of looking at what happened to exchange rates last year is to focus on the appreciation of three currencies rather than depreciation of the dollar. It would provide a much more representative notion of what has been happening.

Now, I suspect very much that Mr. Dornbusch is correct in suggesting that the dollar is still somewhat overvalued. In other words, we came down 4 or 5 percent last year, not 20 or 25 percent, in the value of the dollar relative to all our trading partners, and the dollar will probably depreciate some more.

Estimation of the equilibrium of exchange rate is difficult for any country. We have several conflicting theories.

There is a point of view, which I make parenthetically, among economists which don't care to devote any attention to the trade balance; only to the official settlement balance as it relates to money supply. And that view has been embraced by the Wall Street Journal. In other words, the current account or the trade balance is of concern to us, but there is a view that it can be dismissed.

So, there are conflicting theories of how to determine the equilibrium exchange rates for any currency. For the U.S. dollar it is much more difficult, because there are $250 billion floating out there, deposited in foreign banks, any and decline in confidence triggered by rumors, triggered by happenings, triggered by anything, can induce a small fraction of these holders to unload some of those billions and that is going to depreciate the dollar. In other words, for the dollar it is much more difficult than for any other currency to distinguish fundamental underlying trends from the actual exchange rate movements. Dollar deposits in foreign banks, in such substantial amounts, militate against U.S. intervention. In other words, I think the dollar ought to float clean.

It doesn't float clean primarily because foreign currencies intervene in their own foreign exchange markets. If they intervene in dollars to affect their own exchange rate, that indirectly affects the value of the dollar. But the United States should not contribute to that, because with so many dollars floating overseas, almost equal to the U.S. money supply, measured as M–1, there is little we can do.

I believe we shouldn't, and I think we cannot manage the dollar float. In other words, the dollar ought to float as clean as possible, both because we shouldn't and because we cannot intervene adequately. So that is the answer to your question concerning intervention.

I believe the dollar is still somewhat overvalued. It will depreciate further, but when it comes down, you have to look at the overall depreciation of the dollar rather than the depreciation relative to three currencies.

Representative MITCHELL. Thank you.

I might come back to that. I don't know how our time is running, and I want to get into another area.

There is one thing that almost all the Members of the House of Representatives agree on—and that is rare—and that is that oil imports are the chief cause of our balance-of-trade deficit. I think there is consensus on that.

The problem is, how do you try to limit the oil imports? There are options, of course. I think we can use quotas or tariffs. We could use a crude oil equalization tax, and maybe there are other options. But as I read it, the Members of Congress are groping with these options and still haven't come up with any answer.

I would like to get expressions from the members of the panel on what, in your opinions, are the most appropriate ways to limit oil imports?

Mr. DORNBUSCH. I certainly find myself in disagreement with your view that oil imports are the chief explanation for the deficit. I don't think one can look to oil, and I think it is a mistake to try and solve the current account with an oil policy. But I think there is, of course, an overwhelming case for saving energy in the U.S. economy, and it will in the intermediate term, 5 or 10 years, have beneficial effects on the current account.

I think the rise in domestic prices—allowing domestic prices to increase to the world level—is the best way. I wouldn't think that quotas are desirable. I think the minimum of regulations and the maximum of a clear sign that the real price of energy is up for good is the best way.

When you do that, there will be some cutdown in demand, but most of the adjustment takes time, as we change capital equipment and consumer durable goods and housing to more energy-conserving modes. That is a very long process, and I think the free market in that case is really indicated.

Mr. KREININ. Congressman Mitchell, in listening to your first question, is oil imports the crucial factor in our deficits? You might reverse it and ask if oil is the crucial factor in the deficit, why is it that Japan, which depends on imported energy 100 percent of its energy consumption, and Germany, which depends for maybe 80 percent, are running surpluses. If oil is the crucial factor, that is.

I am not denying that oil is some of the factor, but oil is not the crucial factor, because the evidence is against it.

Obviously, we can improve our position by cutting down on oil imports. In other words, oil does play a role in the deficit, but I wouldn't attribute the entire deficit to it, because, otherwise, you cannot explain the performance of Japan and Germany.

Oil is one of the second things. In my prepared statement, I make the following observation. Policy initiative in the United States should address the problems of energy, inflation and unemployment, and to permit the dollar exchange rate to be determined by market forces.

In other words, there is no question that energy is a big problem on its own merits and it ought to be tackled, because, in the long range, it is a problem in the United States, not because of its balance-of-payments implications only.

When I say that oil is not the beginning and the end of the balance of payments problem, I am not suggesting that energy is not a problem in the United States. It is. But it is a problem on its own merits rather than because of the balance of payments. That is the first part of your question.

With respect to energy policy, my own view is not similar to that of most economists. I would like to see energy prices rise to world

levels in the United States, as Professor Dornbusch suggested, but I don't think that is enough.

In other words, I would like to see a policy of taxes and subsidies—not import quotas. I think import quotas are the third or fourth best policies. There are other measures to bring U.S. prices first to the world market level.

That is No. 1.

No. 2, introduce additional taxes and subsidies schemes that would further discourage consumption of energy even then.

In other words, we, in the United States have become accustomed to it today, that 67 or 70 cents at the pump is sort of our God-given right. In fact, the real price of gasoline has declined over the years in the United States.

In foreign countries, it has gone up. In other words, the Europeans are accustomed to paying $1.50 or $2 a gallon. We are not. I, myself, believe that we do need an active policy of taxes and subsidies superimposed upon market prices.

In other words, I would like to see market-plus. What we have now is market-minus.

The reason for my different views, different from most economists on that—most economists probably would advocate letting the market price prevail—is because I look at the energy problem as very, very long run, spread over generations.

It requires probably a generation or two to switch the economy from an oil-natural gas base to, say, coal base or some other base, and I am not sure that if left to the markets, we would have enough time for smooth transition.

In other words, we all agree that markets do discount, but I do not—I am not sure at all that we have experience with this over generations, and it is for that reason that my own view is this; but there is no question that energy prices must rise in order to discourage consumption. I just don't see any other way out.

But that is not because of the balance of payments implication. It is because we do face a longrun energy problem which ought to be taken on its own merits.

Representative MITCHELL. Thank you, Mr. Chairman. Mr. Solomon, you had a comment?

Mr. SOLOMON. One word, if I may.

As you know, when you assemble three economists, you expect to hear more than three different views on any single subject.

Representative BOLLING. Would the intervention of the members? [Laughter.]

Mr. SOLOMON. I would like to enter just a slight reservation to what has been said by my colleagues. I don't disagree with them head on. Neither of them, however, said anything about the current inflation problem in the United States. The existence of inflation and the threat of it is having a significant impact on macroeconomic policy of the United States.

It is having a significant impact on all sorts of other aspects of our society, and it is obviously a matter of deep concern to many people in this country, just the present rate of inflation.

If we go about solving our energy problem, and we all agree that there is an energy problem in the long run, if we go about solving it in

the short run by raising prices abruptly, this will have, in turn, feedback effects through wages and worsen the wage-price cycle that Mr. Strauss and Barry Bosworth and others are trying to do something about.

I thought that consideration ought to be put into the record along side the other views.

Representative MITCHELL. Thank you. I know my time is up, but I would like to seize this opportunity to press my position, which recognizes the danger of inflation but takes serious issue with singling that out as the key problem right now.

Every time I get an opportunity, I suggest that there are two dangers, not just inflation, but unemployment and more in particular structural unemployment, because you cannot separate these out and give one a higher priority over another.

Thank you, Mr. Chairman.

Representative BOLLING. Congressman Reuss.

Representative REUSS. I am glad, Mr. Solomon, you made the point you did just now, that raising domestic oil prices to the world price, while it sounds simple, it is possible could be a most Draconian measure, and I have been disappointed that the White House has not, in my judgment, faced up to what really needs to be done.

You do have to raise the domestic price to the world price over a period of years, but, meanwhile, nobody seems to take into account the position of a large part of the American working public, which was conditioned by public policy into buying a little home 40 miles away from the working place and commuting back and forth.

It seems to me you have to do something for them. You have to do something for other people who need to use gasoline, and I don't know why the Department of Energy hasn't cooked up—is it perfectly possible to do, and it was done in World War II—some kind of a phased-in program, where you take, for instance, as gas rationing program, where everybody gets 15 gallons a week.

If you cushion that so that those who need more in order to get to work and for other essential purposes get more at a lower price for a while, 3 or 4 or 5 years, that would be helpful.

I think, then, and only then, would it become politically possible. I gather that something like that is in your mind when you say we should raise the prices to the world level, and that that will have an inflationary impact.

Mr. SOLOMON. Yes.

Representative BOLLING. Anybody want to comment?

Mr. KREININ. Yes.

Let me suggest two things.

First of all, the topic of this meeting was not energy policy, and I am sure that the reason why nobody here expounded their views on energy was because we had a totally different focus. But in direct response to your points, I, myself, would not support an abrupt price increase to world prices.

I would support a gradual, preannounced increase over a period of several years.

Representative REUSS. If I may interrupt you, that is sensible, because that is a signal to somebody who is contemplating buying a home 40 miles from his workplace, that it isn't a very good idea.

Mr. KREININ. Yes. The adjustment in the economy would start immediately after the announcement is made and everybody can be certain it is coming over a period of years. Most observers would like to see a gradual change, although we might differ about how gradual it should be.

Second, when it comes to the gasoline tax, which is a big part of the original administration program, it was not proposed only as a tax. Rather, it was coupled with a direct subsidy. It was a tax-subsidy combination. In other words, you could impose a 100-percent tax on gasoline, and return the money to people in the low- and middle-income brackets in the form of a direct subsidy.

The reason why the general public failed to understand the nature of the proposal is because economists went on confusing it with technical statements, such as substitution effect and income effect. But actually the idea is very simple.

If you take an average family that spends $500 a year on gasoline, and if you double the price by a tax, you increase the relative cost of gasoline; and at the same time you return the $500 to the family in the form of an income subsidy. The income of this representative family was not affected by the tax-subsidy action.

As long as the family is not going to spend the additional money on gasoline, you have reduced gasoline consumption without making the family worse off.

Representative REUSS. This, again, isn't a hearing on energy, but the poor devil who has been induced by American social decisions to so order his lifestyle that he has to use a lot of gasoline is worse off. That fact that he gets back peanuts on the income tax isn't going to save him.

If you shy away from a quasi-rationing system, which I think one should not shy away from—I think one needs one—if you shy away from that, about the best way of getting the money back in the right pockets that I can think of in a simple way is to repeal the increase in the workers' share of the social security tax that we mistakenly enacted last December.

There is a rough correspondence, a very rough correspondence there.

As you say, this is not a hearing on energy.

Mr. KREININ. It is a different issue. But if you match the tax for the average person with a direct subsidy; if he spends $500 on gasoline in a year and you doubled the price by tax to $1,000, and you returned the $500 to him, he is no worse off than he was before, and all the adjustment that he would make is of his own choosing.

You have only changed relative prices, but have not affected his income.

Representative REUSS. He would probably choose to buy additional gas.

Mr. KREININ. Not to the full extent.

Mr. DORNBUSCH. I am happy Congressman Reuss mentioned social security, because that, of course, is one way to offset the inflationary effect.

I think the U.S. economy has plenty of measures of that variety to act where we can control inflation on the supply side. I do think that

is a way of compensating for the inflationary impact of an energy program.

It is true, too, that in the aggregate, the U.S. economy has been poorer, because the increased oil price has to be borne, and I don't think it is right to go out and compensate everyone that has an identifiable loss. Of course, we may want to ask for changes in the real income distribution, but that is a separate question.

I do think the price increase is important to give a subsidy to the production of energy conserving resources and products and equipment. If we have a slowly phased-in nominal price increase, we don't know whether that wouldn't be overtaken by inflation. Of course, if Congress would make it a real increase, and would have regulations, that might do it, but I don't think that is the right approach either.

We have agreed that a relatively free market-oriented solution is preferable, and that it should come very soon, and if it has an inflationary impact, that is a good occasion to cut out other regulations and taxes in the economy.

Representative REUSS. Thank you, and other members of the panel.

Representative BOLLING. Thank you.

Congressman Brown.

Representative BROWN of Ohio. No questions at this time, Mr. Chairman.

Representative BOLLING. Let's take Bonn again. It was not a disaster. It was a very nonspecific success. [Laughter.] That is much better than a disaster. You gentlemen have studied a great deal in terms of international economics. Is that the best we can expect out of a developing technique of summits annually?

Have we made progress over the one, two, three, or have we retrogressed?

What I am asking you in effect is an impossible question, and this is another impossible question, but it has to be asked because we have to try to think about it here.

What are the ways in which we can improve the possibility of coordinating whatever seems to agree is an absolute essential—the efforts of a variety of economies of different kinds in the world?

What I am getting at is, is there a structural approach? Is there a technical approach? Is there any approach that will make it more likely that we will do what I think everybody agrees we have to do, do a better job of coordinating world economies?

May I start with you, Mr. Solomon, sir?

Mr. SOLOMON. Mr. Chairman, I think the first thing one has to do is define what one means by coordination. I don't think what we are talking about is having all countries necessarily move in the same direction at the same speed at the same time.

That isn't what is implied by your question at all.

Representative BOLLING. No.

Mr. SOLOMON. I think what coordination ultimately comes down to is, one, acknowledging that it is in the interests of all countries that all countries should expand somehow along an optimum growth path with a minimum of inflation. That is the objective that they can agree upon. They can agree upon that without having meetings, of course.

Then, the next question is, how do governments go about pursuing policies to achieve that result? That is, an optimum growth of the world economy, each one taking into account what the others are doing, the policymakers in each country taking into account the economic performance of their major trading partners.

That is how I would define coordination; namely, adjusting your own economic policies, country by country.

Now, that cannot be done exclusively by Presidents and Prime Ministers, particularly when in all frankness those Presidents and Prime Ministers don't understand economic processes very well.

I could quote to you, and I shall not do it, a statement from Prime Minister Fukuda, which may have been put out for political reasons, and maybe he knows better. The statement was that the slow growth of the world economy was the result of U.S. oil imports. That indicates to me that he needs a little more education in the field of economics. I say that with, I hope, respect to Prime Minister Fukuda; he cannot be an expert in everything.

To get back to my main point, this process of coordination, as I have just tried to define it for you, and I hope it is a helpful way of defining it, has to be pursued at all sorts of levels.

It can be discussed at the Presidential level, but it certainly needs to be discussed also at the Minister of Finance level and the Under Secretary level, and, perhaps, at lower and more technical levels among governments, and within the framework of the international economic institutions to which the nations of the world belong, particularly the OECD and the IMF.

I think that is all I wish to say. My main purpose was to try to help a little bit in defining what we mean by this process.

Representative Bolling. What you are really saying is that there is no substitute for a rather slow, and for lack of a better word, I will say a "grinding" process, in which we learn by going through each month and each year, pursuing our best goals at whatever level we are working.

Mr. Solomon. I am afraid there is an awful lot of learning to be done. Since Mr. Kreinin has given a little bit of free publicity to the Wall Street Journal, perhaps I could mention, Mr. Chairman, that I write a newspaper column fortnightly in the Journal of Commerce, in which I try to spread a little bit of economic wisdom as I see it. I have tried in these columns over the past few months to comment on the state of the world economy in an effort to make a very tiny contribution to an improvement to what we have just been calling economic knowledge and economic education.

I think that has a long way to go, if one looks at the statements that come out of our leaders. I have already mentioned Prime Minister Fukuda, and I won't pick on him any more.

I could say something about some of the statements Chancellor Schmidt has made, and with all due respect to our President, as I listened to him being interviewed by John Chancellor the other night, perhaps tired after 2 days of meetings, but I felt his comprehension of some of the problems he had been concerned with could have been more acute.

Representative Bolling. That leads me inevitably to what I consider an even more acute problem in this country, which is not the executive,

but right here in Congress—at least, so it seems to me as I grapple from day to day with the handling of problems in our domain.

Mr. SOLOMON. I didn't dare raise that subject. [Laughter.]

Representative BOLLING. But, really, what that amounts to, and I will be curious to see if anybody agrees with that particular approach, but that says that we need a vast amount of time for self-education if we are to move into what is in effect a totally new kind of situation, not just in the last 10 years, but from 1966 on.

We have a totally different economy and world economy to deal with.

Now, that is a very simple minded statement, but I think it is terribly important that more and more people up here, at least, realize it.

Would you like to comment?

Mr. KREININ. Yes, I would like to say a few words.

You might ask yourself the following question, Mr. Chairman.

Why is it that suddenly without any preparation, the world's leaders, on the spur of the moment, agreed on an antihijacking agreement?

Representative BOLLING. Agreed on what?

Mr. KREININ. Antihijacking agreement.

Representative BOLLING. I think for reasons we all understand.

Mr. KREININ. Because there is a commonality of interest. They came together and found they had a common interest, and they agreed immediately.

Representative BROWN of Ohio. It is easier than reaching agreement on the economies?

Mr. KREININ. Yes. The areas in which we can reach an agreement are areas in which we have common interest.

Mr. SOLOMON. Nobody is going to lose any votes by signing that agreement.

Mr. KREININ. Finally, areas of mutual agreement in economics are not all that easy to find. Even if we were all educated on both sides of the Atlantic and there were absolutely no information problem, there are problems of perception.

Every time I go across the Atlantic, I am surprised by some of the things the Europeans are preoccupied with, a contrasted to what Americans are occupied with, and I am talking about well-informed people.

I am not talking about people who don't understand the issues. Their preoccupations are different.

So what we have is three things.

No. 1, education; No. 2, interchange of views; No. 3, finding areas of common and mutual interest.

These matters cannot be handled over a 2-day period by seven Presidents, and what strikes me about the summits is that the staff work is incomplete.

What I would suggest on that score is to assign a task force within the OECD exclusively devoted to doing staff work in preparations for those annual summit meetings, and try to identify areas where they could reach agreement because of commonality of interest.

Otherwise, I just don't think it will be very advantageous to have those meetings.

Representative BOLLING. From the Hill, the staff work looks rather remarkably good. I am not disagreeing with you, but I am giving you

a different perception. I think you are right and I am right. I think it is true of the staff work, given the moment in time in which we find ourselves, is good, but I think undoubtedly, in line with what Mr. Solomon said, we need more involvement at different levels.

Have you any comment?

Mr. DORNBUSCH. I think the summits deserve more cynicism than they have so far received. The main purpose they must serve is to make interaction between the executive and the domestic parliaments easier by the executive signing blank checks abroad and taking them back home.

That may be an effective technique.

Representative BOLLING. It hasn't been very effective in this country. [Laughter.]

Mr. DORNBUSCH. In the present case, of course, it is natural, because none of the foreign commitments is fresh or new. In fact, is there anything that was really different?

If, on the other side, one asks what benefits can be achieved, the executive is better prepared for economic issues, and that might not happen otherwise.

We should not assign too much importance to this, and, certainly have not much optimism that it changes international economic circumstances in any way.

Since the last summit things are going worse.

Mr. SOLOMON. If I may take the other side.

Since I criticized President Carter, let me quote him.

He said in answer to a question of John Chancellor last night, "None of us knows what would have happened had we not had a summit a year ago."

One can say that to Mr. Dornbusch. One cannot really attribute the worsening of economic conditions since the last summit to the fact that a summit took place.

Representative BOLLING. I would like to say that we are really talking about two different things. I think they are clearly two different things.

One is an attempt of the soft science to be hard economics, and a totally known science to be effective politics, and I think we find that a summit, sort of a blending of that with one element that I think is terribly important, and that is that I think all of you would agree that psychology has something to do with that conference.

Mr. DORNBUSCH. I think the last summit did some damage, because every country came out with growth targets that they did not achieve.

Mr. SOLOMON. What harm did that do?

Mr. DORNBUSCH. In designing their own policies, they all understimulated their own economies. Only those who ran large deficits and had the large depreciations did achieve their targets. I think there is a real risk in going out and making promises and coming home and getting less. The differences between last year and this year was that chiefs of state recognized that this had happened, and this leads them to be more careful. Japan, moreover, could say they couldn't make 7 percent because the dollar depreciation worsens their position.

Representative BOLLING. Congressman Brown.

Representative BROWN of Ohio. My first question is, why do we always have to take economic advice from the Germans?

I don't know your background.

Mr. KREININ. Mine is not German.

Mr. SOLOMON. Mr. Fukuda is not German, too.

Representative BROWN of Ohio. Have you already persuaded me not to take his advice on anything?

I wasn't trying to think of his redeeming virtues, but I think he speaks Japanese better than any of us, which has to be some recommendation.

Representative BROWN of Ohio. In your prepared statement, Mr. Kreinin, you talk about causes of some of the gyrations, and it seems to me that a couple of those factors are not within our control, such as the quadrupling of the oil price by OPEC, or the changes in world-wide food situations brought on by unfavorable weather. Then there is the need to divert resources to environmental cleanup and to develop new energy sources.

It seems to me we could slow or defer our environmental cleanup policies and thereby reduce unproductive investments. I wouldn't say necessarily to reduce such investment permanently, but defer it.

Or, we could maintain our existing energy sources in this country by appraising policy or making policies that will encourage use of American resources over foreign resources.

Would either of those steps be desirable, given our current situation?

Mr. KREININ. I said that these developments were combined with policy measures to bring about the gyrations and certainly those policy measures were within our control. To put it in broader context, the reason why I made the statements is to suggest why exchange rate fluctuations were large.

In other words, the Europeans are saying the exchange rate fluctuations are excessive.

To return to your immediate concern.

First, with respect to the environment: This is a matter of social choice.

I don't think that the economist in his capacity as economist, has all that much to say about it. It is a social choice.

Representative BROWN of Ohio. How fast we want to pay for it, I guess, is an economic choice as well as a social choice. The social choice is that we want to do it, but we would like to do it at a somewhat different rate than we are now doing it.

Mr. KREININ. The economic input into that is what are the costs and benefits?

Representative BROWN of Ohio. I would agree with you.

Let me suggest that we close all the factories in the country tomorrow and get clean air and stop all the automobiles tomorrow and get cleaner air.

Now, that probably is not a good social choice, but it clearly is not a good economic choice. Let's go from that situation and go to my question which was: What should be the rate?

Should it be faster in terms of environmental cleanup, or slower, given the current economic situation that we face not only in the United States but in the world?

Mr. KREININ. My personal feeling on that is that we are proceeding at about the right pace.

Representative BROWN of Ohio. Isn't it true that some of the other manufacturing countries and trading countries are proceeding somewhat more slowly than we are?

Mr. KREININ. Yes; it is certainly true from what I have heard that Germany is proceeding further than we are, and that Germany is prepared to expand the use of coal in dealing with the energy situation. But this is a matter of view. I don't think I can give you an economic answer on how fast or how slow we should go.

My view is that we are proceeding at about the right pace, because the environmental decay has increasing social and economic costs, in terms of disease and so forth, that are only now coming to the surface.

Representative BROWN of Ohio. It sounds like you are giving me a social response to what was an economic question.

Mr. KREININ. The economic answer is that investments in the environment and in Germany have severe economic dislocations.

I have my pet theory that the tax revolt in the United States is due partly to massive expenditures on environmental cleanup and the development of energy sources. Because those developments are holding down or slowing down or leveling off the standard of living in the United States.

We are devoting much resources to these areas. Since these investments are a part of GNP, GNP rises. But that increase is not reflected in your standard of living. We have attained a situation where the standard of living may be leveling off, and people resist income redistribution through the Government budget when that occurs.

That, I think, explains many initiatives in favor of the so-called middle class; people who were traditionally happy with their economic lot. I think we have to adjust, but there really is not much of a choice on energy development.

We have to pay the price with respect to that and the environment.

Representative BROWN of Ohio. You add the second dimension, and I want to ask you about that, the domestic energy development. You think we should develop domestic energy?

Mr. KREININ. Yes.

Representative BROWN of Ohio. Should that be continuing the development of our traditional sources of energy, and also, "new sources"?

Mr. KREININ. It depends on what sources. I am not knowledgeable on the nuclear energy, because I am not an engineer. I constantly talk to engineers, and I get different views.

Representative BROWN of Ohio. Engineers like economists tend to be politicians and social thinkers, and it is difficult for them to keep things in organized boxes.

Mr. KREININ. We were talking about the real technical dangers of developing nuclear energy. Well, I wish we could skip the nuclear stage and move to solar.

I would like to see the Federal Government subsidize solar more heavily. Certainly, coal has to be expanded. I, myself, am an agnostic on the nuclear question.

I don't know whether my colleagues here have a view.

Mr. SOLOMON. I don't have the confidence to express a view, Congressman Brown.

Representative BROWN of Ohio. Let's not get hung up on nuclear power as the main point of the question.

The question was, should we, from an economic standpoint—if you can separate your economic view from the social view—continue our environmental cleanup at the same pace, pursue it somewhat more gradually, or quicker?

I guess that is the other choice. The same thing applies to energy development.

Mr. SOLOMON. I am not normally an unresponsive person.

Representative BROWN of Ohio. Maybe the question is irrelevant.

Mr. SOLOMON. No, no; I don't think it is irrelevant at all. I am not an expert on the environment. I have a feeling as a citizen that we ought to continue. As I look at the C. & O. Canal and the Potomac River, I would like to jump into once in a while, but I cannot.

Representative BROWN of Ohio. Let me ask you a question as an economist, and never mind your proclivities to jump into the Potomac River, or your religious feeling with nuclear power.

Could you tell me from an economic standpoint if you think we ought to go faster or slower on environmental cleanup and domestic energy development?

If you want to opt out altogether, I will try another question.

Mr. DORNBUSCH. It is easy to detect why we are reluctant, because we have to know what the purposes of society are. That is a technical question.

I think there is a different economic answer to it that is important. Investment performance in the United States is extremely poor. It is starting to interfere with output. It interferes with capacity growth and employment, and I believe we have to do very dramatic things in the U.S. economy about investment.

The environmental programs have, to some extent, cut into corporate profitability, because they were imposed without much consideration for the costs. We need more attention on how to do it better. The extraordinarily difficult administrative nightmare that surrounds the environmental controls are important. For that reason, I think we ought to slow controls and cleanup, and reexamine it, and let investment get up a bit. I think that is a sufficiently overriding concern to delay jumping into the Potomac. [Laughter.]

Representative BROWN of Ohio. Do you want to comment on energy? You have given me a response, "environmentally."

Mr. DORNBUSCH. I think there is room for domestic improvement. I really don't know anything about nuclear plants. I have faith, however, in technological progress. Over the last 150 years, it has been a main factor in economic growth.

With the right price structure, I think we can expect responses on the demand and supply side.

Technological progress has been extremely important historically. You cannot ask what will be tomorrow's product, but over the past 150 years, it has been the main source of growth, and I think it is something we should let happen and see what it will be.

Representative BROWN of Ohio. Would you agree with Mr. Solomon on energy, Mr. Kreinin?

Mr. KREININ. Yes.

Representative BROWN of Ohio. Let me ask a prepared question.

Can we support the value of the dollar by currency intervention if the Federal Reserve keeps expanding the money supply too rapidly?

Isn't the oversupply and falling value of the dollar interest naturally largely reflecting the oversupply and the falling dollar domestically?

Mr. DORNBUSCH. If you compare monetary growth in the United States and abroad, you will find the United States, certainly on M–2, has a very low growth compared to Germany. There is not excessive monetary growth in the United States at the current stage.

We know money is very tight and very expansive, depending whether you take the view of M–1 or M–2. There is really no way, however, you can go directly from monetary growth to the depreciation of the dollar.

It is true that the average higher rate of inflation that we have in the United States compared to, say, Germany, will imply that the dollar will depreciate over time.

I have argued before that the depreciation rate should be even higher to restore competitiveness to the U.S. trading sector.

We certainly shouldn't try at all to support the dollar. I think that would be a terrible policy. There should be depreciation, because our inflation is still higher than abroad, and I think there should be even more to gain competitiveness, and I don't believe the monetary growth is an obstacle. I think there is substantial support across the economics profession that you cannot stop inflation by stopping monetary growth.

Representative BROWN of Ohio. Mr. Kreinin, I would like an agreement on this growth.

We seem to be on the brink of solving the problem by eliminating some of the options.

Would you agree with Mr. Dornbusch's analysis of monetary growth in the United States?

Mr. KREININ. Yes; I think there is surprising agreement among the three of us.

When I got the invitation to appear here, I expected disagreement between Mr. Dornbusch and myself, until I read his book.

I think that there is a high measure of agreement between us with respect to the role of money, although I did mention that there is a body of economic thought that would disagree with us.

Secondly, there is a very substantial measure of agreement on the need for the dollar to float freely. In other words, I don't think we can do anything by intervention, and I don't think we should do anything by intervention.

Representative BROWN of Ohio. Mr. Solomon.

Mr. SOLOMON. I agree. One of those newspaper columns I wrote was on this subject, and I showed there that one cannot attribute the change in exchange rates to differences in monetary growth rates.

That is simply an incorrect view that many monetarists have adopted because they just assume, given the religion by which they live, that if the exchange rate moves, there have to be differences in monetary expansions.

Representative BOLLING. I would like to see what you say about the effect of U.S. deficits on the economy.

Mr. SOLOMON. U.S. current account deficits?

Representative BOLLING. No. I am talking about deficits in the budget. I will start with either of you.

Mr. SOLOMON. Since I am still panting here [laughter], it seems to me it still has equally little or less to do with the international economy than differences of rates of growth in the money supply.

To a significant degree, the U.S. budget deficit is the result of a shortfall from our potential GNP, and I acknowledge immediately that there is great uncertainty as to just what our potential GNP is.

Secondly, the U.S. budget deficit is an offset to the substantial current account deficit in our balance of payments, which is, as you just heard, a drag on economic activity.

Thirdly, the Federal budget deficit is an offset to the very substantial surpluses of the State and local governments in our country.

You put all that together, and the Federal deficit doesn't look all that large. Meanwhile, Germany with its very, very strong currency and insufficiently strong economy, has a budget deficit which Chancellor Helmut Schmidt tells us with great pride, equals 4 or 5 percent of Germany's GNP, considerably greater than the Federal budget deficit in the United States.

So, I don't think that Federal budget deficits are relevant to the subject of this hearing.

Representative BOLLING. You are clearly not agnostic on that.

Mr. SOLOMON. I don't say deficits are appropriate on all occasions.

Representative BOLLING. I understand that. But I am interested in the revival of an old religion, which has now become a new religion in this country, that the whole cause of inflation in every respect is the Federal deficit.

Mr. DORNBUSCH. The point I want to make has been raised.

First, with respect to the size of the deficits, we have to aggregate Federal and State and local deficits. For macroeconomic purposes, you have to aggregate them. It doesn't matter whether it is Cook County or Washington, D.C., that does the spending.

When we aggregate them, the Federal deficit is largely offset by State and local surpluses. You next want to make allowances for price level changes that have taken place since 1950. The consolidated deficit in real terms has fallen over the last 3 years substantially. When you adjust for the fact that the economy has grown, then the consolidated deficit as a fraction of GNP is lower now than in any period of comparable economic slack, defining it in the usual way. We really don't have a budgetary problem at present in the United States.

Now, it is true that the current account deficits tend to equal the budget deficit plus the excess of investment of the private sector over saving. We thus can see a relation between the budget and the current account but we should be happy that the deficit was so large, because, otherwise, the economic slack would be even bigger in the United States.

What we should worry about is, in fiscal policy, that we are trying to throw an enormous amount toward the consumers at the expense of investment. That is the concern, not the size of the deficit, but the nature of the fiscal initiatives.

I think we should not give any cuts to consumers and instead use a policy that would reduce inflation, such as social security rollbacks,

and second, bring about a very significant increase in investment opportunities.

Mr. KREININ. I think the budget policy should be formulated with eyes on the domestic economy, and we should not pay too much attention to the external situation. You cannot neglect it altogether, but the primary consideration in formulating policy is the domestic economy, and I agree with Professor Dornbusch that it is the composition of the fiscal initiatives, rather than the other way around.

Representative BROWN of Ohio. I want to get into this just to make a comment.

One is inclined to be very careful, because I think by holding up your hand, you may be falling into a "Lafferesque" position.

If we don't follow the suggestion, it seems to me we should do what Professor Dornbusch suggests, that is, to start stimulating saving and investment in order to improve the domestic economy.

Perhaps, after all, the Lafferites may have a point, that one should not worry about the deficit. One ought to cut the taxes so as to stimulate the investment of those dollars rather than their seizure by the Government and their use to benefit consumers.

Now, what is wrong with my logic there?

Mr. DORNBUSCH. I think the logic is very good that we should do something about investment.

When we come to implementation, we would depart from measures that would cut personal income taxes. I think we should consider instead investment subsidies to policies of inflation control.

Representative BROWN of Ohio. In other words, you must target investment or the tax cuts or whatever vehicle you use, to increase productivity.

Mr. DORNBUSCH. Capital formation and productivity.

Representative BROWN of Ohio. I was skipping capital formation. Your objective would be to improve productivity, to obtain with those dollars an increase in the supply of goods; is that right?

Mr. DORNBUSCH. We are really not so worried about the shortness of supply. We have two problems. One current aggregate demand or should we expand total spending?

The second is the makeup of that increase in spending. That is what worries us. We should shift away from the policy followed in the last 5 years, a proconsumption policy. To redress it we should choose between the fiscal initiatives of $10 or $15 billion, and that size might be appropriate, policies that favor investment.

Representative BROWN of Ohio. How about a subsidy on savings such as the Germans use? Would that encourage people to put their money in the bank and savings and loans rather than go out and buy widgets with it?

Mr. DORNBUSCH. I don't think we want to get people to stop consuming that way. I think if we go for investment subsidies and better treatment for investment, we will have done enough.

I wouldn't worry about the savings, because this comes at the moment the stock market goes up and people find there is an alternative to current consumption.

People will stop buying refrigerators as a form of investment when the real returns in the economy, on the stock market, are restored.

Representative BROWN of Ohio. It seems to me what people are buying now is an investment, meaning people who have discretionary money. They don't buy refrigerators, but gold or Chinese paintings, or antique furniture, which——

Representative BOLLING. That is a very good group.

Representative BROWN of Ohio. Or land.

Mr. DORNBUSCH. Policies that will subsidize the savings will not affect the way in which people choose to hold their wealth. What determines that is the rate of return on those assets. What has happened is that the profitability of capital has not fared very well, and, therefore, people have shifted out of capital. That is why people have been investing in housing and in Chinese paintings.

Representative BROWN of Ohio. It would seem to me the people who invest in real estate trusts and Chinese paintings, as the chairman pointed out, are those people who in the current inflationary period have discretionary wealth, but the policy pursued by the Federal Government toward subsidizing savings might establish some other people who have discretionary wealth.

For instance, those Congressmen who still drive 1969 automobiles might decide not to buy a new car this year, and instead put that money into the savings account, or in the bank. The same reasoning goes for the purchasing of a refrigerator or perhaps a new color television or some other product.

In other words, you create some discretionary savings in that marginal area of discretionary consumption that perhaps even middle income people in the current inflationary period might be able to find.

Mr. DORNBUSCH. There is no evidence in the United States that the distribution of wealth has shifted, and that inflation has acted in a way to redistribute it by lowering savings on the part of lower income people.

Representative BROWN of Ohio. I was trying to compare our savings rate not to some previous savings rate, but to the savings rate in Germany, where they do subsidize savings.

Mr. SOLOMON. There is an implication, Congressman Brown, that investment in the United States is somehow being impeded by an absence of savings, and I think probably all three of us would—I cannot speak for all three of us, but I am guessing—disagree with that in the present condition of our economy.

Representative BROWN of Ohio. There is no relationship between the savigs rate and the rate of productivity in the United States?

Mr. SOLOMON. I will speak only for myself, but repeating what Mr. Dornbusch said, certainly incentives for higher investment are desirable, and the savings would be forthcoming.

We still have enough slack in our economy, though it is not enormous, so that higher investment and higher income would also generate higher real savings.

If, at the same time you encourage savings, you also reduce consumption, and this might also discourage investment.

Representative BROWN of Ohio. I had some additional questions that I wanted to ask, but I want to go to the quorum call. I was absent yesterday.

Representative BOLLING. I think this is about the right time to stop.

We thank you for your patience and for your contribution to our education.

The committee stands recessed.

[Whereupon, at 12:12 p.m., the committee recessed, to reconvene at 10 a.m., Wednesday, July 19, 1978.]

[The following written questions and answers were subsequently supplied for the record:]

RESPONSE OF MORDECHAI E. KREININ TO ADDITIONAL WRITTEN QUESTIONS POSED BY REPRESENTATIVE BROWN OF OHIO

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C., July 20, 1978.

Mr. MORDECHAI E. KREININ,
Department of Economics,
Michigan State University,
East Lansing, Mich.

DEAR DR. KREININ: Representative Clarence J. Brown has requested that the enclosed questions be sent to you. They, along with your answers, will be included in the record of the hearing on our Midyear Review of the Economy which was held on July 18.

We would appreciate your reply as soon as possible in order to insert the answers in the final transcript.

Thank you for your attention to this matter.

Sincerely,

JOHN R. STARK,
Executive Director.

Enclosure.

The Law of One Price states that identical products sell for identical prices at any one time, adjusted for transportation and tax differences between countries. Or, to put it another way, wheat bound for Boston and wheat bound for Bombay originally sell for the same price in Chicago.

You question Mundell and Laffer's use of this law because of price differentials between products of different brands. But, all they are saying is that, after a devaluation, the relative prices of goods return to their normal predevaluation pattern—that identical goods which traded at identical prices before the devaluation, will sell at identical prices after the devaluation, that a product which sold at a (say) 2 percent premium over its competition before the devaluation will return to the same premium after the devaluation.

You seem to be implying that, if German wine had a 2 percent premium over American wine before the deutsche mark began to rise, it could develop a 4, 8, 16, or 32 percent premium as the mark continues to rise, with no regard whatsoever for the relative real costs of production of wine in Germany and the United States. Please explain.

You then claim that Mundell and Laffer use a "ratchet effect" to say that devaluation raises inflation in the devaluating-country without lowering prices in the revaluing country. Can you document this claim? Remember that Mundell is the chief author of the theorem that the devaluing country experiences more inflation, and the rest of the world less inflation, sharing the adjustment burden in inverse proportion to the relative sizes of the domestic and rest-of-world economies.

Something resembling a ratched effect is discussed by Mundell in the case where nations are competitively cheaping their currencies in an attempt to boost government spending, or to export unemployment to each other, and, particularly, where the IMF requires countries to intervene in the exchange markets to print more of their own money to prop up the value of someone else's currency. It is not a general rule in the Mundell-Laffer model of devaluation, and it is an entirely separate question from the one of who bears the adjustment burden of a devaluation. They do not have an asymmetry in their theory that puts the whole impact of a devaluation into inflation in the devaluing country.

Finally, we have been given charts by H. C. Wainwright and Company showing that wholesale price indexes, adjusted for exchange rates, move in tandem across major nations with very little lag or error. Prices are set by real conditions of supply and demand, not by exchange rates. If you wish to contest this point, please furnish the Committee some charts showing long-term divergence of wholesale price indexes of various foreign countries from the U.S. index, with each country's index adjusted for the dollar exchange rate.

—

MICHIGAN STATE UNIVERSITY,
DEPARTMENT OF ECONOMICS.
East Lansing, Mich., August 10, 1978.

JOHN R. STARK,
Executive Director, Joint Economic Committee,
Washington, D.C.

DEAR DR. STARK: Representative Clarence Brown raises a couple of important points relating to my analysis of the Mundell-Laffer hypothesis.

First, concerning the documentation of the thesis and the ratchet effect embodied in it, I would draw your attention to the following articles: Arthur B. Laffer, "Do Devaluations Really Help Trade"? Wall Street Journal, February 5, 1973, p. 10; and "The Bitter Fruits of Devaluation", Wall Street Journal, January 10, 1974, p. 14. Jude Wanniski, "The Case for Fixed Exchange Rates", Wall Street Journal, June 14, 1974; and "The Mundell-Laffer Hypothesis—A New View of the World Economy", Public Interest, No. 39, Spring 1975, pp. 31–52.

There exist other secondary references to the M–L thesis. And when I summarized it for the second edition of my textbook (M. E. Kreinin, "International Economics—A Policy Approach," Harcourt Brace Javanovich, 1975), I checked whether the summary represented their views, and indeed it did.

Because several years have elapsed since originally expounded, it is perhaps more reasonable to refer to the hypothesis as one attributed to Mundell-Laffer.

With respect to the "Law of One Price," it is indeed correct that the Law applies to homogeneous products such as wheat. It would probably also hold in the case of materials whose prices are determined internationally. But the burden of evidence is against the "Law" in the case of differentiated products; namely in the case of most finished manufactures. Furthermore there is considerable evidence that relative prices are affected by exchange rate changes. And finally, there is evidence of price reductions in cases of revaluation.

I shall cite three studies relating to the points raised in the last paragraph: (1) C. Pigott. R. Sweeney and T. Willett. "Some Aspects of the Behaviour and Effects of Flexible Exchange Rates" (especially table 10), U.S. Treasury Discussion Papers (mimeographed), June 1975. (2) Peter Isard, "How Far Can We Push the 'Law of One Price'?" the American Economic Review, December 1977. And (3) M. E. Kreinin, "The Effect of Exchange Rate Changes On The Prices and Volume of Foreign Trade", International Monetary Fund Staff Papers, July 1977.

Finally, I do not have charts similar to those supplied by H. C. Wainwright and Co. However, together with a colleague I have completed a comprehensive if not exhaustive survey of the literature pertaining to that topic. It is scheduled to appear later this year in M. E. Kreinin and L. H. Officer, "The Monetary Approach To The Balance of Payments: A Survey." Princeton Studies in International Finance No. 43.

Chapter 10 of that study surveys the empirical tests of the 'Law of One Price' on the goods market, Bonds market, and Equity market. With one or two exceptions the 'Law of One Price' in the commodities market does not receive empirical support. Nor does it receive support in the bonds and equity markets. It would appear the 'Law of One Price' must be rejected at the present state of the globe.

I trust this reply is responsive to the issues raised by Representative Brown, and appreciate the opportunity to expand on the original discussion.

Thank you,
Sincerely,

MORDECHAI E. KREININ,
Professor of Economics.

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