

676

94th Congress }
1st Session }

JOINT COMMITTEE PRINT

CREDIT FLOWS AND INTEREST COSTS

A STUDY

PREPARED FOR THE USE OF THE
SUBCOMMITTEE ON ECONOMIC PROGRESS
OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

(Pursuant to S. Con. Res. 93)



MARCH 17, 1975

Printed for the use of the Joint Economic Committee

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1975

47-392

270

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LETTERS OF TRANSMITTAL

MARCH 13, 1975.

To Members of the Joint Economic Committee:

Transmitted herewith for the use of the Members of the Joint Economic Committee and other Members of Congress is a study entitled "Credit Flows and Interest Costs." The study was undertaken by the committee as part of its investigation of aspects of the inflation problem that was authorized by Senate Concurrent Resolution 93, adopted on August 7, 1974.

The study endeavors to measure the flow of credit into each major economic sector over the past five years, and particularly the 12 months ending with September 1974.

The study was prepared by Dr. Arnold H. Diamond, Special Assistant to the Deputy Assistant Secretary for Economic Affairs of the Department of Housing and Urban Development, who was loaned to the committee for this project. Dr. Diamond's work and the assistance rendered by officials of various Federal agencies, trade associations and financial institutions in furnishing data and explanations is gratefully acknowledged.

HUBERT H. HUMPHREY,
Chairman, Joint Economic Committee.

MARCH 10, 1975.

HON. HUBERT H. HUMPHREY,
*Chairman, Joint Economic Committee,
Congress of the United States, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith is a staff study entitled "Credit Flows and Interest Costs," which was undertaken by the committee as part of its investigation of aspects of the inflation problem that was authorized by Senate Concurrent Resolution 93, adopted on August 7, 1974.

The study endeavors to measure the flow of credit into each major economic sector over the past five years, and particularly the 12 months ending with September 1974. Using statistics on the volume of credits extended, instead of the traditional data on net changes of outstanding indebtedness, the study clearly shows that, with the exception of housing, each major economic sector received more credit in the past year than in the previous year, despite the historically high levels of interest rates in most sectors.

The study presents an array of statistics that demonstrate that significant amounts of credit were used to finance speculation in land, the stock market, foreign currencies, bank trading in securities and inventory stockpiling by businesses and diversions of funds from the U.S. credit markets via loans to foreign borrowers and the growth

of direct lease financing. In this connection, the study reports on the findings of a staff study of commercial bank responses to a Joint Economic Committee questionnaire inquiring of their compliance with lending policy guidelines issued by the Federal Advisory Council.

With respect to interest costs, the study measures the incremental interest costs that resulted from the record levels of interest rates that prevailed last year and the extent to which they are ultimately borne by the U.S. Treasury. For the latter purpose, it compares the sum of the interest cost shifted to the Treasury because of tax deductibility of interest cost plus the higher interest cost on Treasury borrowing with the estimated taxes paid on the incremental interest income. The study also examines the effects of higher interest rates on the Consumer Price Index, general prices and housing.

The study was prepared by Dr. Arnold H. Diamond, Special Assistant to the Deputy Assistant Secretary for Economic Affairs of the Department of Housing and Urban Development, who was loaned to the committee for this project. Dr. Diamond's work and the assistance rendered by officials of various Federal agencies, trade associations and financial institutions in furnishing data and explanations is gratefully acknowledged.

WRIGHT PATMAN,
Chairman, Subcommittee on Economic Progress.

CONTENTS

	Page.
Letters of transmittal.....	III
Introduction.....	1
Chapter I. Credit flows.....	7
1. To housing sector.....	8
2. To other sectors.....	12
(a) Agriculture sector.....	13
(b) Consumer sector.....	14
(c) State and local government sector.....	15
(d) Federal Government sector.....	17
(e) Industrial-commercial sector.....	18
(f) Foreign sector.....	20
(g) Financial sector.....	21
3. An overview and some observations.....	23
Chapter II. Financing speculation and other credit diversions.....	27
1. Speculative activity and credits for speculation.....	29
(a) Stock market credits.....	29
(b) Land and land development loans.....	30
(c) Currency transactions.....	31
(d) Trading account securities.....	33
2. Accommodating anticipatory borrowing.....	34
3. Fund diversions.....	36
(a) Loans to foreign borrowers.....	36
(b) Direct lease financing.....	40
4. Observance of credit guidelines: Voluntary or mandatory.....	43
(a) Voluntary guidelines: Federal Advisory Council experience.....	43
(b) Mandatory guidelines: The alternative.....	45
Chapter III. Interest cost considerations.....	47
1. Tax considerations.....	48
2. Effects on consumer price index.....	52
3. Effects on general price level.....	54
4. Effects on housing.....	56

APPENDEXES

A. Data sources and methods of estimation—volume of lending activity..	60
1. Mortgage credits to housing sector.....	61
2. Credits to agriculture sector.....	65
3. Credits to consumer sector.....	67
4. Credits to State and local government sector.....	68
5. Credits to Federal Government sector.....	69
6. Funds provided to industrial-commercial sector.....	70
(a) Bankers acceptances.....	73
(b) Foreign commercial and industrial loans.....	73
(c) Domestic commercial and industrial loans.....	73
(d) Bank loans to individuals.....	74
(e) Commercial paper.....	75
7. Funds provided to foreign sector.....	75
8. Funds provided to financial sector.....	77
B. Measurement of incremental interest costs.....	80
1. Measurement specifications.....	80
2. Interest rate differentials.....	81
3. Incremental interest costs.....	86
4. Who paid incremental interest costs?.....	86

VI

B. Measurement of incremental interest costs—Continued

	Page
5. Who received incremental interest costs?-----	89
(a) Nonfarm mortgage and construction loans-----	90
(b) Agricultural loans-----	90
(c) Consumer credits-----	91
(d) Marketable securities-----	91
(e) Other loans-----	96

CREDIT FLOWS AND INTEREST COSTS

By ARNOLD H. DIAMOND*

INTRODUCTION

With the Nation sliding into a deepening recession, resulting in growing and widespread unemployment, questions are being raised regarding the policies followed by the Federal Reserve credit authorities in the past year as they sought to overcome inflationary pressures. Briefly, they allowed interest rates to rise to historic levels, following the conventional wisdom taught in economic textbooks to the effect that high interest rates would cause marginal borrowers to withdraw from the capital market. They expected that such withdrawals would ease credit demands and eventually interest rates would decline to more moderate levels.

But during the 12 months ending in September 1974, the sharp increases in interest rates were accompanied by large amounts of credit extension in each major economic sector, with the exception of the housing sector. Moreover, despite the sluggish pace of the economy, the price indices continued to spurt upward. These economic incongruities were taking place in a nation stunned by the Watergate revelations, the forced resignations of both the President and the Vice President, and in a world plagued by food shortages and unconscionably high petroleum prices.

In an economy beset by inflationary expectations, hoarding of individual commodities is activated by rumors of shortages and speculative holding of assets becomes more commonplace. Although they have the most to lose as inflation erodes the purchasing power of the credit instruments they hold, banks and other financial institutions have helped to finance speculative acquisitions. They also have accommodated anticipatory borrowing by business firms that fear higher prices and higher interest rates in the future.

In this economic environment, the credit authorities understandably have difficulty in knowing whether overall credit should be contracted or expanded. They know they will be blamed if prices advance too fast; and they will be blamed if the economy falters and unemployment becomes more widespread. Their task is made more difficult by the absence of supportive fiscal and incomes policies, which might now exist had they not been demeaned by faithless execution in years past.

To make sense of the seeming economic incongruities that now confront the Nation requires a better understanding of what transpired in the past year, especially in the credit markets. It is generally

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recognized that the credit restraints exercised by the Federal Reserve credit authorities were not felt by each economic sector in equal proportions. It is also generally believed that some credits continued to flow into speculative and other diversionary uses. In addition, many people deduced that when interest rates were raised to record levels, Treasury borrowing costs increased and part of the higher interest costs paid by private borrowers were shifted to the U.S. Treasury because of the tax deductibility of interest payments.

Without precise information on the extent of such credit flows and interest cost sharing, such recognition, beliefs and deductions are essentially impressions, based on years of experience and fragments of data. But if the Federal Reserve credit authorities are to make better informed judgments in the future, they need to obtain a clearer picture as to what happened in the past. Toward this objective, this study seeks to shed light on three questions:

(1) Who received the credits that housing did not get in the past year and how large were the credit flows?

(2) To what extent were the credit funds that went elsewhere used to finance speculative activities and other fund diversions from housing and other productive purposes?

(3) To what extent does the U.S. Treasury wind up paying for the incremental interest costs occasioned by the record levels of interest rates that prevailed in the past year?

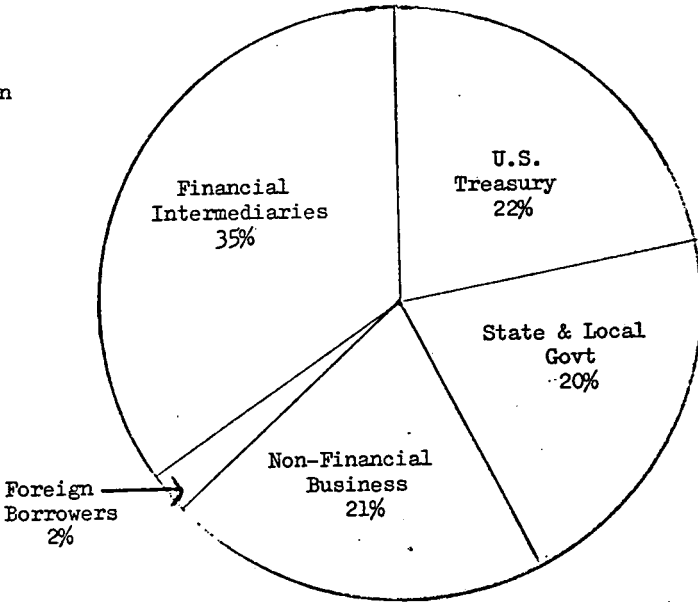
To answer these questions this study makes use of quarterly gross credit flow statistics¹ (some reported, some estimated) for eight economic sectors during the years 1970-1974. It focuses upon the 12 months ending September 1974 to measure the incremental interest costs resulting from the record levels of interest rates in this period and the distribution of the counterpart interest income among lender and investor groups. For the latter, gross flow statistics were developed for the major recipient financial institution groups.

This study is divided into three chapters. Chapter I traces gross credit flows during 1970-1974 in eight economic sectors. For each sector, separate statistics were compiled or estimated for short-term credits (maturity under one year) and long-term credits (maturity one year or more), respectively. Both the long-term and short-term credits distinguish between securities issued in the capital market and loans made directly by lenders to borrowers. Charts A, B, C and D depict these gross credit flows for the 12 months October 1973 through September 1974 for these four categories of credit, showing both principal uses and major sources for each credit category.

¹ Gross flow statistics differ from the traditional net change of holdings (or outstanding) figures appearing in the Federal Reserve "flow of funds" data in that the gross flow data reflect loans resulting from relending of loan repayments in addition to credits financed by "new money."

Chart A
Long-Term Securities Issued During October 1973-September 1974

Uses:
 \$108 billion



Sources:
 \$108 billion

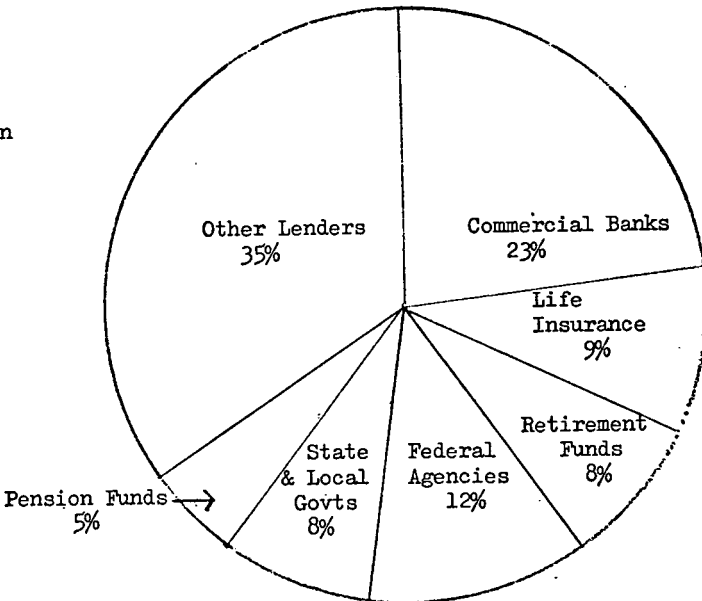
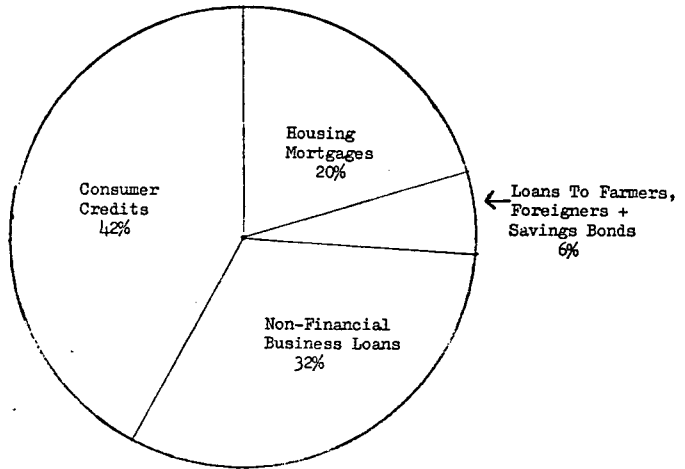


Chart B
Long-Term Loans Made During October 1973-September 1974

Uses:
 \$398 billion



Sources:
 \$398 billion

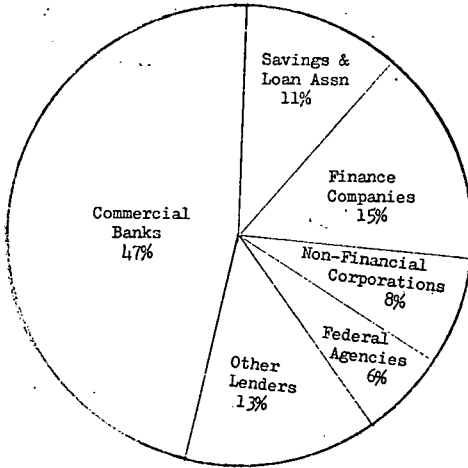
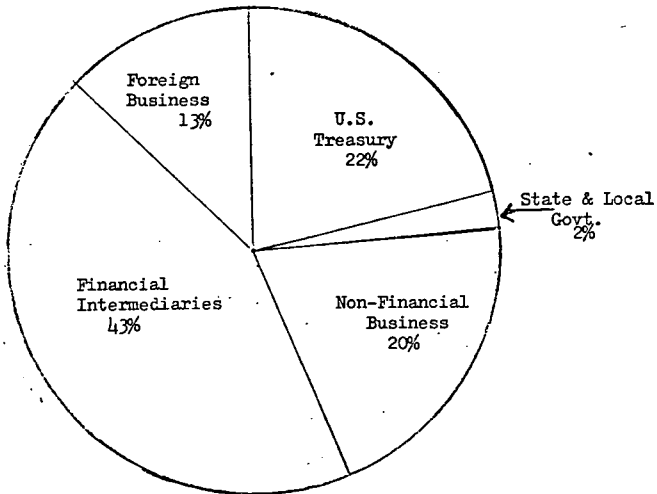


Chart C
Short-Term Securities Issued During October 1973-September 1974

Uses:
\$1,253 billion



Sources:
\$1,253 billion

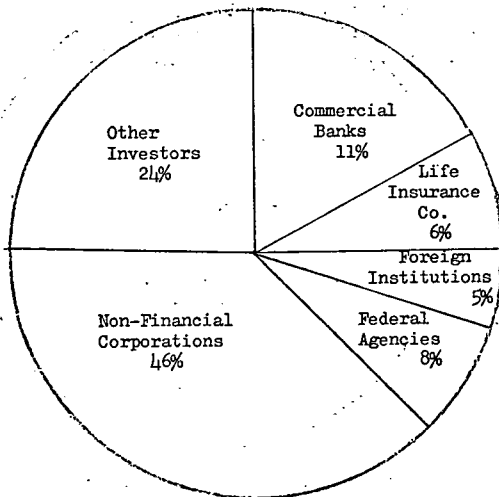
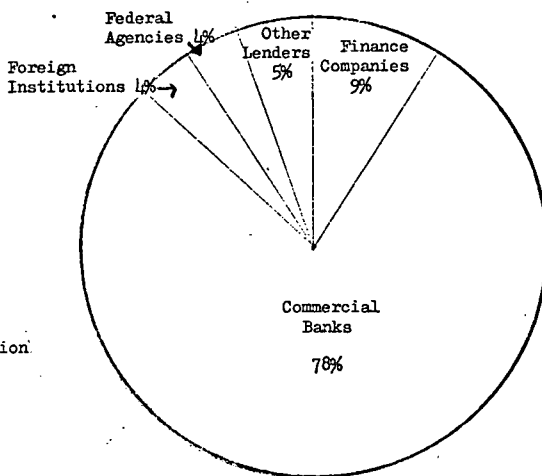
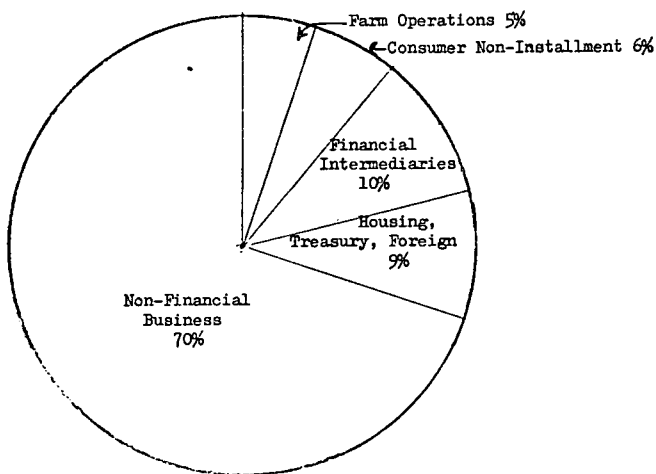


Chart D
Short-Term Loans Made During October 1973-September 1974

Uses:
 \$1,056 billion



Sources:
 \$1,056 billion

Chapter II investigates the extent to which credits provided by financial institutions have helped to finance speculative acquisitions of assets in anticipation of price changes or have resulted in a diversion of funds from U.S. customers. Chapter III deals with interest cost considerations in terms of tax considerations, effects on the Consumer Price Index, general prices and housing. There are also two appendices, one describing the estimation procedures and data sources for the gross flow data discussed in Chapter I and the other describing the data used to measure the distribution of incremental interest costs and incremental interest income.

CHAPTER I. CREDIT FLOWS

It is commonly believed that during periods of tight credit there is a cutback in the volume of credits extended by commercial banks and other financial institutions. Or, if, as usually happens, there are marked increases in the volume of loans made to the commercial-industrial sector, it is believed that there are corresponding reductions in the credits flowing in other economic sectors.

These suppositions are examined in detail in this chapter through extensive use of "gross flow" statistics, which measure the volume of credits actually provided during a particular quarter. They differ from "net flow" data that are frequently used in credit market analyses in that they take into account the very large amounts of credits flowing from the relending of loan repayments in addition to the credits flowing from a net change of loans outstanding or held by financial institutions. The limited usefulness of "net flow" data is shown by the following illustration.

Suppose that at the beginning of year A commercial banks held \$100 billion of loans and that during the year they increased their loan holdings by \$10 billion so that at the end of year A their loan holdings totaled \$110 billion. Suppose that at the beginning of year B the banks held \$200 billion of loans and that during the year they increased their holdings also by \$10 billion, bringing their year-end holdings to \$210 billion. As will be noted, in absolute amounts the banks' net change of loan holdings was \$10 billion in each year, while the annual rate increase fell from 10 percent in year A to 5 percent in year B.

Suppose further that during each year half of the loans outstanding at the beginning of the respective year were repaid and the repayment proceeds were relented during the year so that the year-end holdings of \$110 billion and \$210 billion can be achieved. Under the circumstances, the banks loan \$60 billion in year A (\$50 billion of relending plus a \$10 billion net increase of holdings) and \$110 billion in year B (\$100 billion of relending plus a \$10 billion net increase of holdings). In terms of credit availability, it should be evident that commercial bank lending activity increased from \$60 billion in year A to \$110 billion in year B, a rise of 83 percent.

From the foregoing it seems clear that at times figures on net change of loan holdings give either an exaggerated or an erroneous picture of what actually takes place in the credit markets. For example, during 1973, life insurance companies reduced their holdings of long-term mortgage loans on 1-4 family homes by \$1.8 billion, but their acquisitions of such loans in the same year aggregated \$614 million.¹ Commercial bank extensions of installment credits rose from \$41.0 billion in 1969 to \$43.0 billion in 1970, while their net increase in holdings of installment loans dropped from \$4.5 billion in 1969 to \$3.0 billion in 1970.

¹ Institute of Life Insurance *Life Insurance Fact Book*, 1974, p. 81.

The same disparities also occur in the statistics on debt outstanding and new security issues. For example, during the second quarter of 1974, the outstanding marketable public debt declined by \$7.0 billion, from \$273.6 billion to \$266.6 billion. Nonetheless, over the same period the U.S. Treasury issued \$65.6 billion of short-term marketable securities plus another \$7.3 billion of marketable securities with maturities of one year.

This chapter is divided into three sections. The first section reviews the diminished flow of credits to the housing sector in the past year and some of its consequences upon the housing industry. Section two traces the flow of credits to seven other economic sectors into which the rest of the economy is divided. The third section provides an overview of credit flows during the 12 months ending September 1974 and raises some questions as to why such information is not furnished to the Nation's credit authorities.

1. To Housing Sector

Throughout the past three decades housing has been the residual claimant for funds in the capital market. When funds are in plentiful supply, homebuyers are able to obtain mortgage loans to finance their home purchases, homebuilders are able to obtain construction loans to build new homes and apartment units and investors are able to obtain mortgage loans for apartment houses. Each time credit grew tight there was a sharp cutback in mortgage and construction loans, causing declines in housing starts, decreases in construction employment, large inventories of unsold homes in the hands of builders and deepening frustration on the part of prospective homebuyers who could not obtain mortgage loans except at very high interest rates.

In the latest credit crunch, housing suffered the severest drop in the post-World War II era, with housing starts falling (on a seasonally adjusted annual rate) from a 2.5 million high in October 1972 to levels of 1.1 million units during September and October 1974. While some may argue that the decline in housing starts can be attributed in part to overbuilding in recent years, as reflected by rising inventories of unsold new homes and high vacancy rates for rental units in some parts of the country, the primary reasons for the latest nationwide decrease in housing starts and permit authorizations for future starts have been the dearth of funds for long-term housing mortgage loans and for construction loans and the high interest rates for both. This scarcity of funds for housing is clearly documented by the statistics presented in Tables I-1—I-4.²

As detailed in Table I-1, the slide in mortgage loans for 1-4 family homes (mainly single family homes) began in the third quarter of 1973, particularly for existing homes. The decreases in loans close became more pronounced in the fourth quarter of 1973 and throughout the first three quarters of 1974. Since house prices were rising significantly throughout this past year, the volume of dwelling units financed by mortgage loans fell by larger percentages than the declines registered for mortgage credits, with the drop-off for existing homes again leading the way.

² The mortgage credit statistics for the 11 lender groups summarized in these tables reportedly account for about 95 percent of all housing credits made in the period covered by the tables.

TABLE I-1.—QUARTERLY VOLUME OF 1 TO 4 FAMILY HOMES FINANCED BY LONG-TERM MORTGAGE LOANS

Time period	Long-term loans closed ¹ (millions)			Volume of dwelling units financed ² (thousands)		
	New homes	Existing homes	Total homes	New homes	Existing homes	Total homes
	(1)	(2)	(3)	(4)	(5)	(6)
1970:						
I.....	\$2,463	\$4,161	\$6,624	106.2	233.8	340.0
II.....	3,147	5,901	9,048	133.9	322.5	456.4
III.....	3,420	6,567	9,987	145.5	349.3	494.8
IV.....	3,513	6,260	9,773	148.9	340.2	489.1
1971:						
I.....	3,715	6,390	10,105	149.8	322.7	472.5
II.....	4,957	10,053	15,010	197.5	483.3	680.8
III.....	5,620	11,398	17,018	225.7	550.6	776.3
IV.....	6,002	9,478	15,480	239.1	457.9	697.0
1972:						
I.....	5,490	9,181	14,671	208.0	423.1	631.1
II.....	6,442	13,802	20,244	244.9	630.2	875.1
III.....	7,391	14,836	22,227	284.3	671.3	955.6
IV.....	7,070	12,544	19,614	269.9	562.5	832.4
1973:						
I.....	6,405	11,771	18,176	232.1	530.2	762.3
II.....	7,802	15,729	23,531	292.7	686.9	969.6
III.....	7,456	14,235	21,691	261.6	595.6	857.2
IV.....	6,569	9,169	15,738	229.7	409.3	639.0
1974:						
I.....	5,349	9,252	14,602	184.4	387.1	571.5
II.....	6,553	14,004	20,557	222.9	571.6	794.5
III.....	6,212	11,914	18,126	206.4	474.7	681.1
Percent change:						
1973/1972: IV.....	-7.1	-26.9	-19.8	-14.9	-27.2	-23.2
1974/1973:						
I.....	-16.5	-21.4	-19.3	-20.6	-27.0	-25.0
II.....	-16.0	-11.0	-12.6	-21.2	-16.8	-18.1
III.....	-16.7	-16.3	-16.4	-21.1	-20.3	-20.5

¹ Loans closed by commercial banks, savings and loan associations, mutual savings banks, life insurance companies, mortgage companies, Federal credit agencies, State credit agencies, REIT's, pension funds, public retirement funds, GNMA pools and FHDA blocks of loans. (See table A-1.)

² Estimated by dividing total loans closed by average loan amounts for corresponding quarter.

Sources: Department of HUD: "Supply of Mortgage Credit, 1970-72." HUD releases reporting results of monthly surveys of mortgage lending by 11 groups, mortgage company data for 1970-73 estimated by HUD staff. Federal Home Loan Bank Board: releases on conventional interest rates for single family homes.

Inasmuch as many of the mortgage loans for new homes relate to commitments made sometime earlier, the figures on loans closed for existing homes are a more sensitive indicator of changing credit conditions. They also evidence the growing difficulties experienced by owners of existing homes seeking to sell their homes so that they can "trade up," usually by buying a new home. The sizeable fall-off in sales of existing homes contributed to a slowdown in new home purchases, resulting in larger unsold inventories of completed homes in the hands of builders. Homebuilders reacted to these accumulated inventories by delaying or postponing new construction, even if they could obtain construction funds pursuant to commitments issued before the credit crunch. They also found that construction loan interest rates were so high that the resultant increases in sales prices adversely affected the marketability of the new homes.

Turning to multifamily housing, Table I-2 shows that the volume of long-term loans closed for new units continued to rise (as compared to the corresponding quarter of the previous year) through the second quarter of 1974. However, it should be noted that most of the long-term loans closed for newly constructed apartment houses are pursuant to commitments issued by lenders 1-3 years ago. Significantly, when

account is taken of the growing amount of loan per dwelling unit (reflecting rising housing costs and prices) and the higher interest rates, the number of new multifamily units financed began to decline in the fourth quarter of 1973.

TABLE I-2.—QUARTERLY VOLUME OF MULTIFAMILY DWELLINGS¹ FINANCED BY LONG-TERM MORTGAGE LOANS

Time period	Long-term loans closed ² (millions)			Volume of dwelling units financed (thousands)		
	New units (1)	Existing units (2)	Total units (3)	New units (4)	Existing units (5)	Total units (6)
1970:						
I.....	\$1,457	\$409	\$1,866	100.1	31.2	131.3
II.....	1,656	488	2,144	101.9	33.3	135.2
III.....	1,464	397	1,861	86.7	26.1	112.8
IV.....	1,807	550	2,357	101.6	34.4	136.0
1971:						
I.....	1,305	576	1,881	73.2	35.9	109.1
II.....	1,502	1,097	2,599	84.0	68.1	152.1
III.....	1,869	1,101	2,970	104.4	68.3	172.7
IV.....	2,035	984	3,019	113.6	61.0	174.6
1972:						
I.....	1,637	1,211	2,848	92.1	75.7	167.8
II.....	1,782	1,637	3,419	101.0	103.1	204.1
III.....	2,058	1,431	3,489	119.9	92.6	212.5
IV.....	2,532	1,563	4,095	144.2	98.9	243.1
1973:						
I.....	1,805	1,404	3,209	97.3	84.1	181.4
II.....	2,016	1,842	3,858	110.2	111.8	222.0
III.....	2,132	1,303	3,435	124.3	84.4	208.7
IV.....	2,588	1,000	3,588	128.1	55.0	183.0
1974:						
I.....	2,118	894	2,012	102.9	48.2	151.1
II.....	2,143	1,217	3,360	111.9	70.6	182.5
III.....	2,012	808	2,820	94.2	42.0	136.2
Percent change:						
1973/1972: IV.....	+2.2	-36.0	-12.4	-11.2	-44.4	-24.7
1974/1973:						
I.....	+17.3	-36.3	-6.1	+5.8	-42.7	-16.7
II.....	+6.3	-33.9	-12.9	+1.5	-36.9	-12.6
III.....	-5.6	-38.0	-17.9	-26.5	-50.2	-34.7

¹ Containing 5 dwelling units or more.

² Loans closed by 11 lender groups identified in previous table. (See table A-2.)

³ Estimated by dividing total loans closed by average loan amounts for corresponding quarter.

Sources: Same as table 1. Department of HUD, average loan amounts for FHA-insured loans for new units. For existing units, average loan amounts assumed at 90 percent of average loan amount for new units for corresponding quarter.

In contrast, the drop³ in mortgage financing for existing multifamily dwellings began in the third quarter of 1973 for both loans closed and number of dwelling units financed.

From the viewpoint of the construction industry (homebuilders and building trades labor), the sensitive mortgage credit statistics are those relating to construction loans. As shown in Table I-3, the volume of construction loans for 1-4 family homes began to decline in the fourth quarter of 1973, while the decline in multifamily construction loans did not become evident until the first quarter of 1974. However, once they started, the cutbacks in construction lending for both types of housing continued throughout 1974.

Table I-4 shows originations of long-term mortgage loans and construction for 1-4 family homes and multifamily residential properties combined in current and constant dollars,⁴ respectively. Con-

³ Unless otherwise noted, the foregoing analysis involves a comparison of the current quarter with the corresponding quarter one year earlier.

⁴ As will be recognized, statistics on loan holdings are not amenable to conversion into constant dollars since it is impractical to determine which proportions are closed within the past quarter, as compared to a year ago or ten years ago.

stant dollar figures (current dollar statistics deflated by the appropriate GNP implicit price deflator) provide a truer picture of the sharp declines in loans for housing since they take into account price changes as well as decreases in aggregate loan amounts.

TABLE I-3.—QUARTERLY VOLUME OF HOUSING CONSTRUCTION LOANS AND VALUE OF NEW CONSTRUCTION PUT IN PLACE

(Dollar amounts in millions)

Time period	1-4 family homes		Multifamily properties ²	
	Construction loans	Value put in place ¹	Construction loans	Value put in place ¹
1970:				
III.....	\$2,606	\$4,673	\$1,878	\$2,165
IV.....	2,751	4,748	2,018	2,259
1971:				
I.....	2,783	4,396	1,806	2,327
II.....	3,866	6,587	2,582	2,708
III.....	4,043	7,227	2,219	3,104
IV.....	4,215	6,350	3,557	3,255
1972:				
I.....	4,038	6,047	2,476	3,398
II.....	5,101	7,953	3,010	3,677
III.....	5,335	8,677	3,068	3,963
IV.....	5,056	7,575	3,368	4,170
1973:				
I.....	5,186	6,697	2,981	4,057
II.....	5,702	8,746	3,888	4,326
III.....	5,720	8,618	3,867	4,510
IV.....	4,579	6,244	3,581	4,020
1974:				
I.....	3,546	5,168	2,843	3,424
II.....	4,508	7,299	2,688	3,117
III.....	4,063	7,246	2,204	2,559
Percent change:				
1973-1972: IV.....	-9.4	-17.6	+6.3	-3.6
1974-1973:				
I.....	-31.6	-22.8	-4.4	-15.6
II.....	-20.5	-16.5	-30.9	-22.5
III.....	-29.0	-15.9	-43.0	-43.3

¹ 1-4 unit structures, figures are for last 2 months of indicated quarter plus 1st month of following quarter.
² Containing 5 dwelling units or more.

Sources: Department of HUD statistics cited in table I. (See tables A-3, A-4.) Bureau of the Census: "Value of New Construction Put In Place" and unpublished figures distinguishing 2-4 unit structures from multifamily structures.

As Table I-4 indicates, in real terms the quarterly volume of long-term mortgage credits for housing were off 21-30 percent (as compared to the corresponding quarters in the prior year), while for residential construction loans, the quarterly drop ranged from 12 to 36 percent.

All told, during the 12 months ending September 1974, a total of \$69.0 billion of long-term loans were closed for 1-4 family homes, or \$14.0 billion less than in the previous 12 months. Over the same period, long-term loans closed for multifamily housing aggregated \$11.8 billion, or \$2.8 billion below the amount closed in the prior year. In terms of average loan amounts prevailing in the year October 1973 through September 1974, \$14.0 billion would have financed another 543,000 homes and \$2.8 billion would have financed another 144,000 multifamily dwellings. This then measures in financial and real terms the devastating effects of the 1973-1974 credit crunch upon the housing industry.

TABLE I-4.—LOANS MADE TO HOUSING SECTOR IN CURRENT AND CONSTANT DOLLARS

[Dollar amounts in millions]

	Current dollars		Constant dollars ¹	
	Long-term mortgages	Construction loans	Long-term mortgages	Construction loans
1970:				
I.....	\$8,490	\$2,764	\$6,064	\$1,974
II.....	11,192	4,070	7,898	2,872
III.....	11,848	4,484	8,524	3,226
IV.....	12,130	4,769	8,627	3,392
1971:				
I.....	11,986	4,589	8,341	3,193
II.....	17,609	6,448	11,995	4,392
III.....	19,988	6,262	13,478	4,223
IV.....	18,499	7,772	12,292	5,164
1972:				
I.....	17,519	6,514	11,435	4,252
II.....	23,663	8,111	15,296	5,243
III.....	25,716	8,403	16,184	5,288
IV.....	23,709	8,424	14,554	5,171
1973:				
I.....	21,385	8,167	12,790	4,885
II.....	27,389	9,590	15,915	5,572
III.....	25,126	9,587	14,108	5,383
IV.....	19,326	8,160	10,754	4,538
1974:				
I.....	16,614	6,389	9,039	3,474
II.....	23,917	7,196	12,576	3,783
III.....	20,946	6,267	10,649	3,186
Percent change:				
1973-1972: IV.....	-18.5	-3.1	-26.1	-12.2
1974-1973:				
I.....	-22.3	-21.8	-29.3	-28.9
II.....	-12.7	-25.0	-21.0	-32.1
III.....	-16.6	-34.6	-24.5	-40.8

¹ Reflecting GNP implicit price deflator for nonfarm residential.

Source: Table I-3.

2. To Other Sectors

While it is generally recognized that severe credit restraint hits the housing sector the hardest, there is usually a concomitant belief that several of the other sectors, particularly agriculture, State and local governments and small businesses,⁵ also experience a cutback in the supply credits extended when money gets tight. A review of the statistics presented in Tables 5-11 finds that this was not the case for the 12 month period ending September 30, 1974, during which there was actually an expansion of credit in each of the important economic sectors. This conclusion stems from the following analysis of credit flows.

To ascertain the credit flows to each of the major distinguishable economic sectors, the economy was divided into eight sectors that obtain funds in the capital and credit markets. Seven of the sectors may be characterized as "ultimate users" of credit and the eighth comprises various financial intermediaries. The financial intermediaries

⁵ The available statistics on loans by private financial institutions do not permit a separate delineation of credits to small businesses.

include banks and other financial institutions, Federal credit agencies and State credit agencies, which borrow from financial institutions or sell securities in the capital market. These funds, together with their other available resources (deposits, pension and insurance premiums, investment income plus loan repayments) are loaned to, or invested in securities issued by, the ultimate users.

The ultimate users include: (1) housing sector (discussed in the previous section), (2) agriculture sector, (3) consumer sector, (4) State and local government sector (excluding the State housing finance agencies), (5) Federal government sector (excluding Federal credit agencies), (6) domestic industrial and commercial businesses (excluding financial and real estate companies), and (7) the foreign sector (foreign governments, foreign business, foreign banks and international organizations).

For each of the eight sectors, quarterly gross flows of funds raised in the capital and credit markets⁶ were tabulated for the years 1970-1974.⁷

The individual loan and security categories were grouped under headings usually associated with the particular sector receiving the funds or under some other logical breakdown, i.e. long-term and short-term. The individual loan categories are explained in Appendix A, which describes estimation procedures and data sources. The individual sectors are discussed below.

(a) AGRICULTURE SECTOR

Loans to the agriculture sector may be classified under two headings—farm ownership loans and credits for farm operations. The acquisition and holding of farm properties are usually financed by mortgage loans, most of which are made by Federal agencies⁸ (Federal Land Banks and the Farmers Home Administration), commercial banks and life insurance companies.⁹ Aside from a slight dip in the fourth quarter of 1973, the quarterly volume of farm mortgage loans originated in the past year were higher than the amounts closed in the corresponding quarter in the preceding year (see Table I-5).

⁶ Excluded by this delineation are internal funds generated by non-financial businesses, trade credits from one non-financial business to another and equity investments not reflected by security sales. Also excluded are mortgage loans by credit unions, fraternal orders, investment companies, personal trusts and estates, individuals and miscellaneous sources, and other direct loans by individuals and minor sources of credit. In addition, transactions in the secondary markets for securities, Federal Funds loans, loans by Federal Reserve Banks, and Treasury non-marketable special securities issued to the U.S. Investment Accounts are omitted because of their very short maturities or because they offset each other.

⁷ Through the third quarter of 1974.

⁸ Government sponsored agencies, other "off-budget" agencies and agencies whose financing is included in the Federal Government budget are collectively referred to as "Federal agencies."

⁹ For details see Table A-5 in Appendix A.

TABLE I-5.—LOANS MADE TO AGRICULTURE SECTOR IN CURRENT AND CONSTANT DOLLARS

[Dollar amounts in millions]

	Current dollars		Constant dollars ³	
	Farm ownership ¹	Farm operations ²	Farm ownership	Farm operations
1970:				
I.....	\$645	\$7,920	\$545	\$6,690
II.....	728	6,250	609	5,230
III.....	651	6,020	539	4,980
IV.....	817	8,100	664	6,590
1971:				
I.....	907	8,700	734	7,040
II.....	1,169	7,070	937	5,670
III.....	1,039	6,540	831	5,230
IV.....	1,101	9,160	884	7,350
1972:				
I.....	1,405	9,930	1,120	7,920
II.....	1,557	8,260	1,235	6,550
III.....	1,332	7,770	1,045	6,090
IV.....	1,610	11,550	1,268	9,090
1973:				
I.....	1,819	13,790	1,427	10,820
II.....	2,076	10,800	1,607	8,360
III.....	1,608	10,830	1,227	8,260
IV.....	1,590	14,610	1,202	11,040
1974:				
I.....	1,923	15,780	1,427	11,710
II.....	2,103	11,860	1,511	8,520
III.....	1,819	10,360	1,252	7,130
Percent change:				
1973-1972: IV.....	-1.2	+26.5	-5.2	+21.5
1974-1973:				
I.....	+5.7	+15.7	NC	+9.4
II.....	+1.3	+9.9	-6.0	+2.0
III.....	+11.3	-4.3	+2.0	-13.7

¹ Long-term loans on farm properties by 11 lender groups.² Loans by commercial banks, production credit associations, banks for cooperatives, Farmers Home Administration, Commodity Credit Administration.³ Reflecting GNP implicit price deflator for producers durable equipment.

Sources: Tables A-5, A-6.

Farm operation loans for equipment and facilities, planting, harvesting and storage, livestock feeding and other operations are made by commercial banks, production credit associations, banks for cooperatives, Farmers Home Administration and the Commodity Credit Corporation. As shown in Table I-5, farm operation loans made in the first three quarters of the past year were higher than in the corresponding quarters in the preceding year by percentages ranging from 10 to 27 percent. However, in the July-September 1974 quarter, the volume of loans closed was four percent lower than in the third quarter of 1973.

In constant dollars, during the 12 months ending with September 1974, farm mortgage loans closed were eight percent below the amount closed in the previous year, but farm operation loans were five percent higher.

(b) CONSUMER SECTOR

Following the distinction made by the Federal Reserve Board, loans to the consumer sector are grouped in two categories—installment loans and non-installment loans. Installment loans comprise credits financing the purchase of automobile and other consumer goods, home improvement loans and personal loans, whereas non-installment loans include single payment loans, charge accounts, service credit

and policy loans made by life insurance companies and Veterans Administration life insurance.¹⁰

As detailed in Table I-6, loans extended to the consumer sector during each of the quarters in the past year were in greater aggregate amounts than in the corresponding quarters in the previous year.

TABLE I-6.—LOANS EXTENDED TO CONSUMER SECTOR IN CURRENT AND CONSTANT DOLLARS
[Dollar amounts in millions]

	Current dollars		Constant dollars	
	Installment loans extended ¹	Noninstallment loans extended ²	Installment loans extended ³	Noninstallment loans extended ⁴
1970:				
I	\$24,725	\$11,150	\$22,979	\$8,750
II	29,186	11,070	26,974	8,610
III	28,971	11,080	26,555	8,540
IV	29,276	11,910	26,375	9,050
1971:				
I	26,088	10,970	23,272	8,270
II	32,090	11,660	28,423	8,690
III	32,024	11,500	28,466	8,520
IV	34,079	12,590	30,537	9,280
1972:				
I	33,809	11,280	30,079	8,250
II	35,118	12,480	31,133	9,060
III	35,764	12,270	31,538	8,850
IV	37,877	14,030	33,549	10,040
1973:				
I	41,590	13,000	35,920	9,190
II	41,043	14,460	35,940	10,020
III	42,527	14,180	36,693	9,650
IV	41,101	15,850	35,432	10,510
1974:				
I	41,078	13,210	34,871	8,480
II	43,235	15,590	35,643	9,730
III	43,118	15,070	34,221	9,160
Percent change:				
1973-1972: IV	+8.5	+13.0	+5.6	+4.7
1974-1973:				
I	+1.2	+1.6	-2.9	-7.3
II	+5.3	+7.8	-8	-2.9
III	+1.4	+6.3	-6.7	-5.1

¹ Installment credit for automobiles, other consumer goods, home improvements, and personal loans. Data are seasonally adjusted figures.

² Includes single payment loans, charge accounts, service credit and policy loans by life insurance companies and Veterans' Administration life insurance.

³ Reflecting GNP implicit price deflator for durable consumer goods.

⁴ Reflecting GNP implicit price deflator for personal consumption expenditures.

⁵ Rounded to nearest \$10,000,000.

Source: Federal Reserve Bulletin, table A-8.

Installment loans were higher by percentages ranging from one to nine percent, while non-installment loans had increased by percentages ranging from two to 13 percent. However, in real terms, the installment loans during the 12 months ending with September 1974 were two percent lower than a year ago, while non-installment loans were three percent lower.

(c) STATE AND LOCAL GOVERNMENT SECTOR

State and local governments borrow funds through the sale of bonds and short-term notes. In many States, both municipalities and State governments are now permitted to issue bond anticipation notes, giving them an option to issue bonds or notes depending on their

¹⁰ See Table A-7 for the volume of credits extended for each non-installment category.

judgments regarding interest rate changes and the receptivity likely to be accorded to their bonds by the tax exempt municipal securities market. Hence, during periods of tight credit, which become even more pronounced in the municipal securities market where commercial banks are the dominant buyer, many State and local governments issue short-term notes with the expectation of refunding them with bonds later when interest rates are lower.

TABLE I-7.—SECURITIES SOLD BY STATE AND LOCAL GOVERNMENTS IN CURRENT AND CONSTANT DOLLARS

[Dollar amounts in millions]

	Current dollars		Constant dollars ²	
	Bonds sold ¹	Notes sold ¹	Bonds sold	Notes sold
1970:				
I.....	\$4,029	\$3,439	\$2,521	\$2,152
II.....	3,728	4,310	2,289	2,646
III.....	4,361	4,182	2,622	2,515
IV.....	5,659	5,356	3,345	3,165
1971:				
I.....	6,551	5,759	3,835	3,372
II.....	6,041	6,919	3,478	3,983
III.....	5,796	5,900	3,299	3,358
IV.....	5,681	6,868	3,217	3,889
1972:				
I.....	5,918	6,699	3,291	3,726
II.....	6,138	6,693	3,374	3,679
III.....	5,191	5,377	2,806	2,906
IV.....	5,745	5,692	3,060	3,031
1973:				
I.....	5,832	4,352	3,055	2,280
II.....	5,652	6,750	2,915	3,481
III.....	5,199	6,065	2,653	3,094
IV.....	5,881	6,327	2,951	3,175
1974:				
I.....	5,971	5,323	2,899	2,584
II.....	6,240	8,429	2,938	3,968
III.....	3,701	6,794	1,696	3,274
Percent change:				
1973-1972: IV.....	+2.3	+11.2	-3.6	+4.8
1974-1973:				
I.....	+2.4	+22.3	-5.1	+13.3
II.....	+10.4	+24.9	+ .8	+14.0
III.....	-28.2	+12.0	-36.1	+5.8

¹ Excludes securities sold by State housing finance agencies.² Reflecting GNP implicit price deflator for State and local purchases.

Sources: Securities Industry Association "Municipal Statistical Bulletin, Weekly Bond Buyer," bond sales section.

As shown in Table I-7, the quarterly volumes of notes¹¹ sold by State and local governments in the past year were higher than the amounts sold in the corresponding quarter in the prior year by percentages ranging from 11 to 25 percent. Moreover, in the first three quarters of the past year the volumes of municipal bonds¹² sold were

¹¹ Excluding securities sold by State housing finance agencies that are regarded in this study as funds borrowed by financial intermediaries. Notes issued by these agencies are detailed in Table A-16 and their bond issuances are depicted in Table A-15.

¹² *Ibid.*

higher than a year ago by percentages ranging from two to 10 percent, but in the July-September quarter they were 28 percent lower. In constant dollars, municipal bonds sold in the 12 months ending with September 1974 were 10 percent lower than in the previous 12 months, but notes sold by these State and local governments were nine percent higher, with the quarterly increases ranging from five to 14 percent.

(d) FEDERAL GOVERNMENT SECTOR

The U.S. Treasury borrows funds by selling marketable securities (short-term and long-term) and savings bonds and by issuing non-marketable securities to foreign governments and central banks and to the U.S. Investment Accounts (such as the social security trust funds, the civil service retirement funds and other trust funds). These borrowings have been grouped into three categories—long-term borrowing (maturities over one year), short-term borrowing (maturities up to one year) and foreign series securities.¹³ Securities issued by the U.S. Postal Service and by the Tennessee Valley Authority have been added to the Treasury borrowing data inasmuch as these agency borrowings are essentially another way by which funds are raised by the Federal Government for non-credit activities.¹⁴

As shown in Table I-8, most of the funds borrowed by the U.S. Treasury are raised by the sale of short-term securities, primarily 91 and 182 day bills.¹⁵ The Table further indicates that the quarterly amounts of Treasury short-term securities issued in the 12 months ending September 1974 were above the sums sold in the corresponding quarters a year ago by percentages ranging from five to 11 percent. In contrast, the Treasury cut back its long-term security issues¹⁶ by six to 34 percent in the first three quarters of this 12 month period, but in July-September 1974 it sold 12 percent more long-term debt than in the third quarter of 1973. Foreign security issues were 143 percent higher during October-December 1973, as compared to a year ago, but in the next three quarters they fell off by 18 to 30 percent.

In recent years attention has been focused on the sizeable Federal deficits each year and the resultant heavy Treasury borrowing. But in real terms, the Treasury actually borrowed five percent less in the last 12 months than in the previous year. Measured in constant dollars, long-term Treasury borrowing was down 20 percent in the year ending September 30, 1974, short-term borrowing declined one percent and foreign security issues were off by 14 percent.

¹³ The non-marketable special Treasury securities issued to the U.S. Investment Accounts have been excluded from these tabulations because of the almost daily transactions between the Treasury and the Investment Accounts that are best described as "churning" rather than loan activity.

¹⁴ Securities issued by Government sponsored agencies and other Federal agencies that engage in credit operations are attributed to the financial intermediary sector (see Tables A-15 and A-16).

¹⁵ See Table A-9 in Appendix A.

¹⁶ For details see Table A-8 in Appendix A.

TABLE I-8.—SECURITIES ISSUED BY FEDERAL GOVERNMENT IN CURRENT AND CONSTANT DOLLARS
 [Dollar amounts in millions]

	Current dollars			Constant dollars ⁴		
	Long term ¹	Short term ²	Foreign series ³	Long term	Short term	Foreign series
	(1)	(2)	(3)	(4)	(5)	(6)
1970:						
I.....	\$7,243	\$48,191	\$2,120	\$4,999	\$33,258	\$1,463
II.....	20,013	45,689	2,755	13,477	30,767	1,855
III.....	9,915	51,066	2,710	6,540	33,685	1,788
IV.....	10,217	55,568	2,549	6,660	36,224	1,662
1971:						
I.....	17,695	49,340	2,809	11,108	30,973	1,763
II.....	10,379	56,704	12,409	6,443	35,198	7,703
III.....	9,209	60,163	12,712	5,766	37,673	7,960
IV.....	17,189	63,368	7,589	10,670	39,335	4,711
1972:						
I.....	6,789	61,296	7,029	4,041	36,486	4,184
II.....	7,831	58,935	9,939	5,154	34,790	5,867
III.....	13,534	59,636	8,734	7,837	34,532	5,057
IV.....	8,815	66,430	4,473	4,961	37,383	2,517
1973:						
I.....	7,966	60,756	12,888	4,413	33,659	7,140
II.....	9,879	60,553	15,001	5,369	32,909	8,153
III.....	7,210	63,130	11,301	3,849	33,705	6,034
IV.....	5,816	69,509	10,869	3,028	36,184	5,658
1974:						
I.....	6,933	65,657	10,543	3,502	33,160	5,325
II.....	9,193	66,059	10,542	4,529	32,541	5,193
III.....	8,058	70,210	9,021	3,883	33,836	4,347
Percent change:						
1973-1972: IV.....	-34.0	+4.6	+143.0	-39.0	-3.2	+124.8
1974-1973:						
I.....	-13.0	+8.1	-18.2	-20.6	-1.5	-25.4
II.....	-6.1	+9.1	-29.7	-15.4	-1.1	-36.3
III.....	+11.8	+11.2	-20.2	+ .9	+ .4	-28.0

¹ Marketable Treasury securities, savings bonds, securities issued by U.S. Postal Service and TVA (excludes securities issued by Federal credit agencies).

² Marketable Treasury securities, securities issued by TVA.

³ Nonmarketable foreign series securities issued by Treasury.

⁴ Reflecting GNP implicit price deflator for Federal Government expenditures.

Source: Tables A-8 and A-9.

(e) INDUSTRIAL-COMMERCIAL SECTOR

The industrial-commercial sector consists of all non-financial private businesses (corporate and non-corporate), excluding housing and agricultural activities. It comprises public utilities, transportation companies, industrial firms and commercial establishments. Owing to its diverse means of financing, the funds raised by this sector in the capital and credit markets have been grouped under three headings—long-term securities, other long-term credits with maturities over one

year and short-term credits. Long-term securities include corporate bond and stock issues, excluding those sold by finance and real estate companies.¹⁷

Other long-term credits consist of "term loans" by commercial banks to U.S. companies,¹⁸ loans from finance companies, loans from Federal credit agencies, mortgage loans for commercial properties and commercial bank loans to individuals where the proceeds are used for business purposes.¹⁹ Short-term credits comprise commercial and industrial loans by commercial banks to U.S. companies,²⁰ commercial paper issued by non-financial corporations, bankers acceptances for the account of U.S. companies, finance company loans, construction loans for commercial properties and bank loans to individuals for business purposes.

Owing in large part to the relatively low levels of corporate bonds issued in the first nine months of 1973 (partially due to the sharp increase in bank term loans), the quarterly volumes of corporate bonds issued during January–September 1974 were appreciably larger than the quarterly amounts sold in the prior year.²¹ Corporate stock issues in the past year were somewhat lower than in the previous year. Similarly, other long-term credits to non-financial businesses were lower in each quarter of the 12 months ending with September 1974, as compared to a year ago, with the decreases ranging from one to four percent (see Table I-9).

In contrast, short-term credits to non-financial businesses, especially commercial and industrial loans by commercial banks, bankers acceptances and commercial paper, were considerably larger in each of the past four quarters, as compared to the corresponding periods a year ago, with the increases ranging from 20 to 35 percent. In effect, the tremendous expansion of business credits in the past 12 months was largely in the form of short-term loans by commercial banks.

In real terms, short-term credits to non-financial businesses in the 12 months ending September 1974 were 19 percent larger than in the year before, with the quarterly increases ranging from 14 to 23 percent (see Table I-9). As compared to a year ago, long-term security issues in the last 12 months were up by 14 percent, whereas other credits over one year were nine percent lower—with the decreases ranging from seven to 14 percent.

¹⁷ These companies are treated as financial intermediaries (see Tables A-15 and A-16).

¹⁸ Excluding loans to foreign companies, which are in the foreign sector.

¹⁹ Loans to individuals that are not classified by the Federal Reserve Board as consumer credits.

²⁰ Excluding bankers acceptances held by commercial banks.

²¹ See Table A-10 and A-11.

TABLE I-9.—LOANS MADE TO, AND SECURITIES ISSUED BY, INDUSTRIAL-COMMERCIAL SECTOR IN CURRENT AND CONSTANT DOLLARS

[Dollar amounts in millions]

	Current dollars			Constant dollars ⁴		
	Long-term securities issued ¹	Credits for over 1 year ²	Short-term credits ³	Long-term securities issued	Credits for over 1 year	Short-term credits
	(1)	(2)	(3)	(4)	(5)	(6)
1970:						
I.....	\$7,076	NA	NA	\$5,981	NA	-----
II.....	8,924	NA	NA	7,468	NA	-----
III.....	7,392	\$28,740	\$173,370	6,124	\$23,810	\$143,640
IV.....	9,934	27,650	153,320	8,076	22,480	144,650
1971:						
I.....	10,208	33,160	168,200	8,266	26,850	336,190
II.....	9,521	29,440	154,910	7,635	23,610	124,230
III.....	8,626	26,640	147,670	6,900	21,310	118,140
IV.....	8,254	30,790	154,820	6,624	24,710	144,250
1972:						
I.....	6,903	28,380	142,180	5,505	22,630	113,380
II.....	9,062	28,490	153,650	7,186	22,590	121,850
III.....	7,202	28,870	156,550	5,649	22,640	122,780
IV.....	7,758	31,920	181,000	6,109	25,620	142,520
1973:						
I.....	3,833	32,980	203,090	3,006	25,870	159,290
II.....	6,616	33,910	202,150	5,121	26,250	156,460
III.....	5,374	30,820	190,690	4,099	23,510	145,450
IV.....	7,815	31,570	225,080	5,389	43,860	170,130
1974:						
I.....	7,130	32,200	244,170	5,289	23,890	181,140
II.....	8,352	32,960	266,960	6,000	23,680	191,780
III.....	6,251	29,510	257,350	4,302	20,310	177,120
Percent change:						
1973-1972: IV.....	+0.7	-1.1	+24.4	-11.8	-6.9	+19.4
1974-73:						
I.....	+86.0	-2.4	+20.2	+75.9	-7.3	+13.7
II.....	+26.2	-2.8	+32.1	+17.2	-9.8	+22.6
III.....	+16.3	-4.3	+35.0	+5.0	-13.6	+21.8

¹ Corporate bonds and stocks issued, excluding issues by finance and real estate corporations, federally guaranteed ship mortgage and new community bonds.

² Commercial and industrial "term loans" to U.S. business and loans to individuals for business purposes made by all commercial banks; "term loans" to business made by finance companies, originations of mortgage loans on commercial properties by 11 lender groups, business loans made by Federal credit agencies.

³ Commercial paper issued by nonfinancial companies, short-term finance company loans to business, short-term "commercial and industrial loans" to U.S. business and loans to individuals for business purposes made by all commercial banks, construction loans for commercial properties originated by 11 lender groups, banker acceptances to U.S. companies.

⁴ Reflecting GNP implicit price deflator for producers durable equipment.

Source: Tables A-10, A-11, A-12.

(f) FOREIGN SECTOR

Foreign businesses and governments obtain long-term funds from the U.S. capital market via security sales, commercial bank "term loans," bank loans to foreign governments and credits from Federal agencies (Export-Import Bank and Agency for International Development). Short-term credits to foreign entities include bankers acceptances for the account of foreign companies, commercial and industrial loans and loans to foreign banks.

Both long-term and short-term credits to foreign entities rose in the past year as compared to a year ago, with the quarterly increases for long-term funds ranging from 22 to 49 percent and quarterly short-term credits (mainly bankers acceptances) expanding by percentages ranging from 33 to 329 percent (see Table I-10).

In constant dollars, long-term credits to the foreign sector grew by three percent in the past year whereas short-term credits jumped by 51 percent, with the latter reflecting quarterly increases ranging from seven to 227 percent.

TABLE 1-10.—U.S. LOANS MADE TO, AND SECURITIES ISSUED BY, FOREIGN ENTITIES IN CURRENT AND CONSTANT DOLLARS

[Dollar amounts in millions]

	Current dollars		Constant dollars ¹	
	Long-term loans and securities ²	Short-term credits ³	Long-term loans and securities	Short-term credits
1970:				
I.....	\$1,140	\$18,860	\$960	\$15,960
II.....	1,570	33,120	1,310	27,580
III.....	1,130	34,870	930	28,610
IV.....	1,450	32,460	1,190	26,650
1971:				
I.....	2,720	17,470	2,170	13,960
II.....	1,970	14,280	1,570	11,390
III.....	1,540	26,650	1,230	21,220
IV.....	1,420	26,090	1,130	20,720
1972:				
I.....	1,580	17,190	1,240	13,510
II.....	2,110	14,730	1,630	11,410
III.....	1,370 ³	14,430	1,050	11,070
IV.....	2,340	21,560	1,760	16,210
1973:				
I.....	2,730	23,080	1,990	16,830
II.....	2,170	30,740	1,500	21,230
III.....	1,170	17,370	750	11,210
IV.....	3,130	28,680	1,900	17,400
1974:				
I.....	3,340	32,680	1,870	18,260
II.....	3,230	50,520	1,710	26,770
III.....	1,390	74,500	680	36,610
Percent change:				
1973/1972: IV.....	+33.8	+33.0	+8.0	+7.3
1974/1973:				
I.....	+22.3	+41.6	-6.0	+8.5
II.....	+48.8	+64.3	+14.0	+26.1
III.....	+18.8	+328.9	-9.3	+226.6

¹ Reflecting GNP implicit price deflator for U.S. exports.² Foreign bond and foreign stock issues, loans by Export-Import Bank and Agency for International Development, large commercial bank loans to foreign governments, "term" commercial and industrial loans by large commercial banks.³ Bankers acceptances for account of foreign borrowers, large commercial bank loans to foreign banks, short-term commercial and industrial loans to foreign companies by large commercial banks.

Source: Tables A-13 and A-14.

(g) FINANCIAL SECTOR

The financial sector comprises various financial intermediaries that raise funds by the sale of securities and by borrowing to finance loans to, and investments in securities issued by, "ultimate users" or other financial intermediaries.²² They include commercial banks, savings and loan associations, personal and sales finance companies, real estate investment trusts, mortgage companies and other private financial institutions. They also include Federal credit agencies and State housing finance agencies that issue debt securities and use the proceeds for loans.

The funds raised by these financial intermediaries in the capital and credit markets are distributed among three categories—long-term securities, short-term securities and loans made. The securities (long-term or short-term) include: corporate bonds, corporate stock, bonds and notes issued by State housing finance agencies, bonds and notes issued by Federal credit agencies²³ and commercial paper issued by finance companies and REIT's. Short-term loans to financial intermediaries include: Federal Home Loan Bank advances to savings and

²² Conceivably one commercial bank can lend to another commercial bank, which uses the proceeds to buy bonds issued by the Federal Home Loan Banks, which use the proceeds to make advances to savings and loan associations that purchase mortgage loans originated by mortgage companies enabling them to repay "warehouse loans" obtained from commercial banks.

²³ Identified in Tables A-15 and A-16.

loan associations and commercial bank loans to other commercial banks, personal and sales finance companies, and other financial institutions (mainly mortgage companies and REIT's).²⁴ This financing is detailed in Table I-11.

TABLE I-11.—FUNDS PROVIDED TO FINANCIAL SECTOR, IN CURRENT AND CONSTANT DOLLARS

(Dollar amounts in millions)

	Current dollars			Constant dollars ¹		
	Long-term securities issued ²	Short-term		Long-term securities issued	Short-term	
		Securities issued ³	Loans made ⁴		Securities issued	Loans made
	(1)	(2)	(3)	(4)	(5)	(6)
1970:						
I.....	\$5,739	\$91,200	\$9,270	\$4,318	\$68,600	\$6,980
II.....	4,728	97,300	11,860	3,518	72,400	8,820
III.....	5,620	93,600	11,410	4,138	68,900	8,400
IV.....	7,101	92,100	12,380	5,149	66,800	8,980
1971:						
I.....	6,307	73,600	11,230	4,521	52,800	8,050
II.....	6,699	71,600	13,290	4,748	50,700	9,420
III.....	8,244	69,700	11,920	5,806	49,100	8,390
IV.....	7,825	70,900	13,540	5,484	49,700	9,490
1972:						
I.....	7,454	74,100	12,310	5,155	51,200	8,510
II.....	6,516	76,600	14,410	4,485	52,700	9,920
III.....	6,656	77,200	14,850	4,543	52,700	10,140
IV.....	6,712	81,400	19,900	4,535	55,000	13,450
1973:						
I.....	8,481	90,000	20,060	5,654	60,000	13,370
II.....	10,209	99,500	24,020	6,690	65,200	15,740
III.....	7,750	113,300	22,270	4,978	72,800	14,300
IV.....	10,414	117,600	24,510	6,554	74,000	15,420
1974:						
I.....	8,188	120,300	23,410	5,005	73,500	14,310
II.....	8,675	157,200	31,230	5,185	94,000	18,670
III.....	11,283	147,900	29,190	6,564	86,000	16,980
Percent change: 1973-						
74 4th quarter.....	+55.2	+44.5	+23.2	+44.5	+34.5	+14.6
1974-73:						
1st quarter.....	-3.5	+33.7	+16.7	-11.5	+22.5	+7.0
2d quarter.....	-15.0	+58.0	+30.0	-22.5	+44.2	+18.6
3d quarter.....	+45.6	+30.5	+31.1	+31.9	+18.1	+18.7

¹ Reflecting GNP implicit price deflator for entire gross national product.² Corporate bonds and stocks issued by financial and real estate corporations, bonds issued by State and local government housing finance agencies, bonds and debentures issued by Federal credit agencies (including Government sponsored agencies).³ Notes issued by State and local government housing finance agencies, commercial paper issued by financial companies notes issued by Federal credit agencies.⁴ Federal Home Loan bank advances to savings and loan associations, commercial bank loans to commercial banks, personal and sales finance companies and to other non-bank financial institutions.

Sources: Table A-15, A-16, A-17.

Reflecting heavy borrowing by Federal credit agencies, long-term securities issued by financial intermediaries were up 16 percent in the 12 months ending September 1974, as compared to the year before. This growth includes increases of 55 percent in the fourth quarter of 1973 and 46 percent in the third quarter of 1974. Short-term securities issued by financial intermediaries (mainly commercial paper) in the past year were 41 percent higher than those issued in the previous year, with the quarterly percent increases ranging from 34 to 58 percent.

²⁴ Loans of Federal Funds from one bank to another and Federal Reserve Bank loans to member banks logically belong in this loan category, but they have been omitted because their maturities are so short. If they were included, the commentary regarding growth patterns would be about the same.

Short-term loans to financial intermediaries (primarily commercial bank credits) over the same period were 26 percent above the loan volume in the year before.

In real terms, as compared to the year before, long-term security sales during the 12 months of October 1973 through September 1974 were higher by seven percent, short-term security sales were up by 29 percent and short-term loans were 15 percent larger.

3. An Overview and Some Observations

The foregoing credit flows are summarized in Table I-12, which compares quarterly lending activity in current dollars. As evidenced by the percent change figures, only the housing sector experienced cutbacks in the quarterly volume of credits extended, as compared to the same quarter a year ago in each of the last four quarters. In contrast, each of the other seven economic sectors increased their borrowing during the past four quarters, as compared to the corresponding quarter in the previous year.

TABLE I-12.—COMPARISON OF CREDITS EXTENDED BY ECONOMIC SECTOR, QUARTERLY AMOUNTS IN CURRENT DOLLARS

Economic sector	Percent change]			
	1973/1972	1974/1973		
	4th quarter	1st quarter	2d quarter	3d quarter
A. Housing sector:				
Mortgage loans	-19	-22	-13	-17
Construction loans	-3	-22	-25	-35
B. Agriculture sector:				
Farm ownership loans	-1	6	1	11
Farm operating loans	27	16	10	-4
C. Consumer sector:				
Installment loans	9	1	5	1
Noninstallment loans	13	2	8	6
D. State and local governments sector:				
Long-term bonds	2	2	10	-30
Short-term notes	11	22	25	12
E. Federal Government sector:				
Long-term securities	-34	-13	-6	12
Short-term securities	5	8	9	11
Foreign series securities	143	-18	-30	-20
F. Industrial-commercial sector:				
Securities issued	1	86	26	16
Long-term loans	-1	-2	-3	-4
Short-term loans	24	20	32	35
G. Foreign sector:				
Long-term funds	34	22	49	19
Short-term credits	33	42	64	329
H. Financial sector:				
Long-term securities	55	-4	-15	46
Short-term securities	45	34	58	31
Short-term loans	23	17	30	31

Source: Tables 4-11.

To be sure, the Federal Government and the industrial-commercial sectors reduced their long-term borrowing in three of the last four quarters, but they stepped up materially their short-term borrowing, with the short-term credits to the industrial-commercial sector exceeding, on the average, the prior year's loans by 28 percent. Loans to the foreign and the financial sectors in all four quarters were substantially higher than a year ago, while credits extended to the agriculture and consumer sectors were moderately larger. Even the State and local government sector borrowed more heavily than in the previous year, except for long-term bonds during July-September 1974.

A somewhat different picture emerges from Table I-13, which compares the credit flows in constant dollars. In real terms the drop in housing credits was more pronounced; while the Federal Government and the consumer sectors also show borrowing decreases (in three of the past four quarters). Each of the other five sectors experienced decreases in long-term loans in several quarters during the last 12 months, but these declines were more than offset by sharp increases in their short-term borrowing, especially by the industrial-commercial, foreign and financial sectors.

For all eight economic sectors taken together, total long-term credits extended in the year running from October 1973 through September 1974 were about one percent less than during the preceding 12 months, measured in current dollars. Measured in constant dollars they were about seven percent lower. However, short-term credits extended in the eight sectors in the past year were about 29 percent higher than in the prior year when measured in current dollars. In constant dollars, aggregate short-term credits were about 18 percent greater than in the prior year. In other words, the 12 months ending in September 1974 was a period of credit expansion, rather than the commonly believed credit contraction.

TABLE I-13.—COMPARISON OF CREDITS EXTENDED BY ECONOMIC SECTOR, QUARTERLY AMOUNTS IN CONSTANT DOLLARS

Economic sector	[Percent change]			
	1973/1972 4th quarter	1974/1973		
		1st quarter	2d quarter	3d quarter
A. Housing sector:				
Mortgage loans	-26	-29	-21	-25
Construction loans	-12	-29	-32	-41
B. Agriculture sector:				
Farm ownership loans	-5	0	-6	+2
Farm operating loans	22	9	2	-14
C. Consumer sector:				
Installment loans	6	-3	-1	-7
Non-installment loans	5	-7	-3	-5
D. State and Local Government sector:				
Long-term bonds	-4	-5	1	-36
Short-term notes	5	13	14	6
E. Federal Government sector:				
Long-term securities	-39	-21	-15	+1
Short-term securities	-3	-2	-1	0
Foreign series securities	125	-25	-36	-28
F. Industrial-commercial sector:				
Securities issued	-12	76	17	5
Long-term loans	-7	-7	-10	-14
Short-term loans	19	14	23	22
G. Foreign sector:				
Long-term funds	8	-6	14	-9
Short-term credits	7	9	26	227
H. Financial sector:				
Long-term securities	45	-12	-23	32
Short-term securities	35	23	44	18
Short-term loans	15	7	19	19

Source: Tables 4-11.

Comment

As will be recognized, analysis of credit extensions to the major economic sectors, with appropriate distinctions between long-term and short-term loans, provides a very clear and comprehensive picture of how, and to what extent, each sector is affected by policies of credit ease or credit tightness. Since the object of changes in Federal Reserve credit policies is to bring about changes in the availability of credit funds and the levels of interest rates, one would think that the Federal Reserve Board and the Federal Open Market Committee would have statistics such as those presented in the preceding sections so that they could judge the impact and effectiveness of their credit policy decisions.

Unfortunately, this is not the case. As evidenced by the statistics appearing in the *Federal Reserve Bulletin*, the analyses referred to in the Records of Policy Actions of the Federal Open Market Committee and the Federal Reserve Board's quarterly assessment of financial developments that it prepares for the Joint Economic Committee, most of the financial data brought to the Federal Reserve Board's attention are balance sheet figures. Even the highly regarded "flow of funds" statistics published by the Board are balance sheet figures of outstanding indebtedness of different sectors, loan holdings by identifiable groups of financial institutions and calculated net changes thereof.

To be sure, the *Federal Reserve Bulletin* does contain statistics on installment credit extensions and new long-term security issues of State and local governments and of corporations.²⁵ But all the other loan and investment data appearing in the statistical tables published in this *Bulletin* are shown either as outstanding debt figures or as assets held by different types of financial institutions. While these balance sheet figures are useful to those who want to know how much debt is outstanding or which institutions hold various kinds of loans or securities, they are not very informative on what occurred in the credit markets during a particular month or quarter.

To ascertain what happened in a credit market sector during a month or quarter, it is necessary to obtain statistics on credit extensions.²⁶ To enhance their usefulness, the credit statistics should distinguish long-term loans (over one year) from short-term loans (up to one year) for clearly identifiable economic sectors, as described in the preceding sections.

Considering the fact that many "gross flow" credit statistics already exist (some published, some unpublished)²⁷ and that others can be estimated (either along the procedures used in this study or by other methods) or compiled through periodic surveys, it is difficult to understand why the Federal Reserve Board and its staff do not assess credit market developments in terms of loan extensions to each major economic sector. Undoubtedly, they recognize that measuring growth rates of outstanding credit balances or calculating net changes in amounts outstanding or held on two successive dates are exercises in comparative statics. But the "real" economy, which the credit policies seek to influence, comprises such dynamic forces as business capital outlays, consumer expenditures, housing construction and other activity affected by availability of credit.

²⁵ The *Federal Reserve Bulletin* formerly published statistics on new long-term security issues of the U.S. Treasury and Federal agencies, but these series terminated, as of the end of 1973.

²⁶ Since many credit extensions, especially mortgage loans, are pursuant to commitments issued some time earlier, comparable data on commitments to make loans should also be obtained.

²⁷ See Appendix A for details.

With due allowance for appropriate leads or lags, relating statistics on credit extensions to the relevant economic activity measurements is bound to improve the precision of credit market analyses since both kinds of data would be activity quantifications. Greater precision, in turn, should lead to more accurate appraisals of conditions in the capital and credit markets not only by the Federal Reserve staff, but also by the multitude of economists, statisticians and others who try to interpret financial statistics. Who knows—the accuracy stemming from making more relevant comparisons might even improve the track record of econometric models that are used for economic forecasting.

To conclude, the Federal Reserve credit authorities shoulder heavy responsibilities as they seek to steer the U.S. economy between the shoals of inflation and recession. Right now the economy is aground on both, a circumstance that can be partially blamed on faulty economic intelligence. The Federal Reserve Board and the Federal Open Market Committee are assailed by the monetarists for not paying enough attention to the growth rate of the money supply. Spokesmen for the Federal Reserve respond that the credit authorities should take into account the levels of interest rates and conditions in the credit markets in addition to the money supply. Their case would be a lot stronger if the assessments of conditions in the credit markets were based on credit activity statistics that bear directly upon economic activity.²⁸

²⁸ Privately, Federal Reserve Board staff contend that lenders would have difficulty in reporting on business loans and other credit extensions, despite the fact that monthly statistics on "gross flows" of mortgage loans (including secondary market transactions) and consumer installment loans are collected from the important lender groups including commercial banks. Life insurance companies also report on their security acquisitions. The staff further contend that commercial banks might withdraw from the Federal Reserve System, if their reporting requirements became too burdensome. If this becomes a real problem, the requisite reporting could be made mandatory for all financial institutions benefiting from Federal Government deposit insurance.

CHAPTER II. FINANCING SPECULATION AND OTHER CREDIT DIVERSIONS

Commercial bankers and officials of other supervised financial institutions earnestly believe that the loans they make and the securities they purchase adequately respond to the credit needs of the communities in which they are located and are consonant with national social priorities. Their trade associations point with pride to their large holdings of residential mortgage loans, their programs to help rehabilitate inner city properties, their participation in small business loans, their provision of agricultural credits and their holdings of municipal securities issued to finance the Nation's infrastructure of public facilities.

From this viewpoint, these private financiers have difficulty in understanding why Federal and State legislatures enact laws establishing public credit programs under which Federal and State credit agencies are authorized to make and/or purchase loans for housing, agriculture, small business and public facilities. By the same token leading members of the financial community are deeply distressed by legislative proposals that would require financial institutions to invest at least specified percentages of their assets in designated "social priority" loans and investments, or would prescribe supplementary reserves to be held against earning assets, with preferential lower reserves for "social purpose" loans, or would authorize public agencies to issue enforceable credit allocation guidelines.

It should be recognized that the sharp differences between the views of many members of the private financial community and those of Federal and State legislators stem largely from the basic dilemmas confronting financial institutions. Because of their fiduciary responsibilities to safeguard the deposits, reserves and other funds entrusted to them, these financial institutions are expected to acquire only good quality loans and investments, eschewing speculative credits and transactions. Yet to maximize earnings (the usual way by which their success is measured) they frequently turn to riskier loans (with higher interest rates to compensate for credit risks), credits in anticipation of price changes and other kinds of speculative transactions.

If these improvident financial operations lead to losses and eventual insolvency, the private financial community expects the Federal and/or State regulatory agencies to take corrective action (by support, termination or merger) in such a way as to create minimum disturbance to other financial institutions in the area. Meanwhile, these other "well managed" financial institutions periodically seek broader loan and investment powers and authority to provide additional services, which they contend would improve their capability to serve the needs of the community. Simultaneously, they press for fewer administrative regulations and restrictions on their operations.

This continuing conflict between the public regulatory bodies (legislative and administrative), who feel that they must protect "the public's interest" in monitoring the way private financial institutions

operate, and the financial institutions that wish to be "unshackled" from constraining regulations should be borne in mind in any assessment of the lending operations of "supervised financial institutions." For unlike non-financial businesses, these financial institutions have unique powers that permit them to hold funds of the general public (including insurance or pension reserves); and in the case of commercial banks, they also have the unique power to create money on the basis of their fractional reserves.

During the past year, despite the slowdown in economic activity, the Nation has experienced one of the sharpest rises of prices since World War II. This inflation, which has eroded the purchasing power of the fixed return assets held by financial institutions, has been attributed by various analysts to the rapid growth of the money supply, material shortages, price hikes by the cartel of oil producing countries, and other "cost-push" or "demand-pull" forces.

By and large, the role played by financial institutions in this inflationary economy seems to have been overlooked. It is frequently assumed that financial institutions respond passively to emerging credit needs; and as the economy expands, so do the volume of credit extensions. But in an economic environment of bank holding companies and other means for promoting corporate growth, these financial institutions, particularly the large commercial banks, have become quite aggressive in seeking to attract funds and to put them to profitable use.

Motivated by targets for increasing growth rates and larger market shares, and stimulated by the desire for greater earnings and higher rates of return per share, the managements of many large banks (and other financial institutions) have striven to expand their institution's operations. They rapidly increased the number and size of foreign branches, moved aggressively into direct lease financing, provided extensive credits for the acquisition and holding of land, expanded considerably trading operations in currencies and securities and furnished financing for the heavy accumulation of business inventories in the past year. In addition, they extended loans to finance company take-overs, corporate purchases of their own outstanding shares and "luxury type" expenditures by middle and upper income families.

In an economy beset by rapidly rising prices in virtually all sectors, these credit extensions and fund diversions contributed to prevailing inflationary pressures by helping to step up demand for resources with limited supplies and by siphoning funds out of already tight credit markets. Partially due to these forces, interest rates spurted to historic highs in many capital market sectors. Since a large part of the foregoing list of credits and fund allocations were in anticipation of further increases in prices (and interest rates), they were helping

to finance the growing volume of speculation that generally arises in periods of raging inflation.

This chapter seeks to identify and quantify, to the extent feasible, the various ways by which credits were used to finance speculative activity and to accommodate business anticipatory borrowing. It also examines several kinds of fund diversions and reports on recent efforts to monitor the lending operations of commercial banks.

1. Speculative Activity and Credits for Speculation

By definition, speculation involves the entering into a transaction or venture, the profits of which are conjectural or subject to chance, i.e., buying or selling with the expectation of profiting by fluctuations in price. Speculators perform a useful economic function in markets subject to fluctuating prices such as commodity and currency markets in that they provide a counterpart for hedging by producers and processors and by exporters and importers against adverse price changes. Speculative considerations are also entertained by those who acquire securities or land in anticipation of price increases.

By their nature, speculative transactions are risky undertakings, resulting in losses as well as gains to those who speculate. Accordingly, speculators are expected to use their own funds rather than borrowed funds to finance speculative undertakings. Nonetheless, in years past, bank credits were used extensively to finance stock market operations. Of more recent vintage are the credits extended by various financial institutions to finance the acquisition and holding of land. In addition, commercial banks have engaged for their own account in currency transactions and in trading of debt securities. These undertakings are detailed below.

(a) STOCK MARKET CREDITS

As may be recalled the stock market boom of the 1920's was fueled, in part, by the ready availability of credits. Brokers loans rose from \$1.5 billion on September 30, 1923 to \$8.5 billion on October 4, 1929, while loans to brokers and dealers, secured by stocks and bonds, made by the weekly reporting commercial banks in New York City increased from \$2.8 billion on October 6, 1926 to \$6.8 billion on October 2, 1929.¹

In the current market, stock market credits have been sizeable, despite the slump in stock prices and margin requirements ranging between 50 and 65 percent. As detailed in Table II-1, margin credits by commercial banks and by brokers (primarily financed by bank loans) totaled \$5.1 billion at the end of September 1974, compared to \$7.0 billion last year and \$9.1 billion two years ago. Non-margin stock credits at banks totaled \$2.1 billion on September 30, 1974, compared to \$1.9 billion a year ago.

¹ Federal Reserve Board, Banking and Monetary Statistics, (Washington, D.C., 1943), pp. 494, 497, 498.

TABLE II-1.—STOCK MARKET CREDITS

[Dollars in millions]

	Margin credits by			Nonmargin credits by banks	Total stock market credits
	Brokers	Banks	Total		
	(1)	(2)	(3)	(4)	(5)
1970:					
March	NA	NA	NA	NA	NA
June	\$4,054	\$900	\$4,954	\$1,145	\$6,099
September	NA	NA	NA	NA	NA
December	NA	NA	NA	NA	NA
1971:					
March	4,531	861	5,392	1,137	6,529
June	4,976	807	5,783	1,228	7,011
September	5,208	782	5,990	1,182	7,172
December	5,700	835	6,535	1,197	7,732
1972:					
March	6,896	951	7,847	1,158	9,005
June	7,792	955	8,747	1,644	10,391
September	8,083	1,008	9,091	1,871	10,962
December	8,180	865	9,045	1,896	10,941
1973:					
March	7,468	879	8,347	1,862	10,209
June	6,414	953	7,367	1,973	9,340
September	5,949	1,005	6,954	1,909	8,863
December	5,251	1,131	6,382	1,866	8,248
1974:					
March	5,519	1,008	6,527	1,869	8,396
June	5,260	1,033	6,293	2,064	8,357
September	4,173	922	5,095	2,051	7,146

Source: "Federal Reserve Bulletin."

(b) LAND AND LAND DEVELOPMENT LOANS

The rapid build-up of the suburban rings surrounding the Nation's cities, especially the larger ones, during the past three decades left in its wake isolated pockets of unimproved land held off the market by owners who expect to reap large profits when the land is finally sold to developers. In the outer portions of suburban areas now undergoing development, pockets of land are being withheld from the market by owners who expect to sell at much higher prices when the adjacent areas are fully built.

Withholding of land lying in the path of urban growth tends to drive up the price of the remaining scarce land. It contributes to urban sprawl, uneven suburban growth and sometimes leads to duplicate costs in the provision of needed public facilities. Nevertheless, such land speculation is tolerated as a necessary part of our free enterprise system.

More difficult to fathom is the role financial institutions play in helping to finance such land speculation. As shown in Table II-2, land and land development loans held by significant mortgage lending institutions more than tripled in less than four years, rising from \$3.7 billion at the end of December 1970 to \$12.6 billion on September 30, 1974. Contributing to this sharp increase has been the growth of land loans acquired by the five lender groups covered by the Table, with aggregate loan acquisitions advancing from \$4.7 billion in 1971 to \$8.4 billion in 1973.²

² Statistics appearing in this table were not compiled prior to 1970.

TABLE II-2.—LAND AND LAND DEVELOPMENT LOANS BY SIGNIFICANT MORTGAGE LENDING INSTITUTIONS

[Dollars in millions]

	Commer- cial banks	Savings and loan associa- tion	Mortgage com- panies	Real estate invest- ment trusts	Mutual savings banks	Total
	(1)	(2)	(3)	(4)	(5)	(6)
A. Loans acquired:						
1971.....	\$2,286	\$759	\$728	\$879	\$79	\$4,731
1972.....	2,039	1,188	1,062	1,495	176	5,960
1973.....	3,552	1,127	1,181	2,421	145	8,426
1974 (9 mo.).....	2,387	788	700	913	110	4,969
B. Loan holdings:						
1970 (Dec. 31).....	1,546	1,055	385	584	122	3,692
1971 (Dec. 31).....	2,417	1,248	595	983	136	5,379
1972 (Dec. 31).....	2,577	1,745	1,187	1,966	207	7,682
1973 (Dec. 31).....	4,176	2,136	1,348	3,303	260	11,223
1974 (Sept. 30).....	4,457	2,262	1,874	3,324	282	12,576

Sources: Department of HUD: "Supply of Mortgage Credit, 1970-72"; unpublished results of monthly surveys of mortgage lending conducted by FDIC, FHLBB and SEC; mortgage company data for 1971-73 estimated by HUD staff.

As will be noted, three of the lender groups (commercial banks, savings and loan associations and mutual savings banks) are depository institutions. The other two (mortgage companies and real estate investment trusts) are heavily financed by commercial bank credits classified as loans to non-bank financial institutions other than sales and personal finance companies. For the 330 weekly reporting large commercial banks these loans jumped from \$15.5 billion at the end of September 1971 to \$34.4 billion on September 30, 1974.

While some of the land financed by these loans is awaiting construction scheduled in the near future, much of it is being held for "long-term investment" purposes, to be sold at prices expected to yield a handsome profit after allowance is made for the cumulative costs of annual interest charges, property taxes and hazard insurance in addition to the costs of acquisition and development.

(c) CURRENCY TRANSACTIONS

Each of the large multi-national commercial banks found it advantageous to open up one or more branches in foreign countries. They were joined by a number of smaller banks who for reasons of prestige, profit or both also established foreign branches. As a result, the number of foreign branches of Federally chartered national banks multiplied five-fold from 93 at the end of 1960 to 497 at the close of 1970. In the next three years they expanded by another 45 percent to reach 621 branches at the end of 1973. At that date there were also 73 branches of State chartered banks that are members of the Federal Reserve System (see Table II-3).³

³ Statistics on the number of foreign branches of State member banks are not available for dates prior to December 31, 1972.

TABLE II-3.—CURRENCY TRANSACTIONS OF FOREIGN BRANCHES OF U.S. BANKS¹

[Dollar amounts in billions]

	National banks (Dec. 31)		State member banks (Dec. 31)		All member banks (Dec. 31)	
	1972	1973	1972	1973	1972	1973
Number of branches.....	566	621	62	73	628	694
Total assets.....	\$54.7	\$83.3	\$22.7	\$34.7	\$77.4	\$118.0
Future contracts for foreign exchange and bullion:						
To buy.....	\$23.1	\$38.9	\$11.0	\$14.5	\$34.1	\$53.4
To sell.....	22.0	37.9	10.8	14.5	32.8	52.4
Total.....	45.1	76.8	21.8	29.0	66.9	105.8

¹ Excludes nonmember banks (which had a small number of foreign branches).

Source: Data furnished by Comptroller of the Currency and Federal Reserve Board.

Total assets held by the foreign branches of national banks mushroomed from \$1.6 billion at the end of 1960 to \$38.9 billion on December 31, 1970 and \$83.3 billion at the close of 1973.⁴ On the latter date, foreign branches of State member banks held \$34.7 billion of assets so that the total assets held by foreign branches of all member banks aggregated \$118.0 billion at the end of 1973,⁵ of which about 92 percent constituted claims against foreigners. Of the claims against foreigners, about two-thirds represented claims against other banks. In other words, a large part of the activities carried out by the foreign branches of U.S. banks involved transactions with other banking institutions.

From newspaper accounts reporting on the closing of the Franklin National Bank in New York and from the stories regarding the closing of Bankhaus I. D. Herstatt,⁶ a West German bank, there is no longer any mystery as to what the majority of these inter-bank transactions comprise. They involve the buying and selling of foreign currencies and bullion in anticipation of price changes, i.e., currency speculation. The extent of such currency speculation is revealed by the fact that at the end of December 1973 (the latest available figures) future contracts to buy or to sell foreign exchange (currency) and bullion for foreign branches of all member banks aggregated \$105.8 billion, or 90 percent of their total assets at that date (\$118.0 billion). (See Table II-3.)

As noted above, there is nothing wrong with currency speculation *per se* since it provides a necessary counterpart for those who have to buy or sell forward exchange as a hedge against currency fluctuations. And there is nothing wrong when commercial banks buy and sell foreign currencies to assist American exporters and importers and to accommodate American and foreign tourists. But there is reason to question the degree of currency speculation by the foreign branches of U.S. banks, particularly in periods of credit stringency within the United States amid an economy rife with inflationary pressures.

It is recognized that most of the funds used for currency speculation are obtained from deposits received from foreigners living abroad and that when losses occur, they are written off against the earnings of the

⁴ Assets and liabilities of foreign branches of U.S. banks are not counted in the usual statistics of commercial bank balance sheets that appear in the *Federal Reserve Bulletin*.

⁵ Foreign branches of non-member banks held assets totaling \$3.9 billion on that date.

⁶ Reported losses to American banks resulting from this closing include \$22.5 million for the Seattle First National Bank, \$13 million for the Morgan Guaranty Trust Company, and \$10 million for the First National City Bank of New York. (*Business Week*, September 28, 1974, p. 47)

foreign branches. But when the losses are large, they necessarily are reflected in the U.S. bank's consolidated financial statements and they could contribute to bank insolvency as was the case of the Franklin National Bank. In such instances, the currency trading activities of the foreign branches do have a bearing on the parent bank's financial position, which, in turn, affects its domestic lending operations.

(d) TRADING ACCOUNT SECURITIES

Most commercial banks, especially the small and medium sized institutions, confine their security investment activity to the purchase and holding of debt securities, including Treasury, Federal agency and municipal securities. In contrast, a number of the larger banks have found it advantageous to establish trading departments to buy and sell securities in the secondary market. Their traders try to outguess the traders of other commercial banks, investment banking firms and others active in this market as to prospective changes in security prices and interest rate levels.

As shown in Table II-4, commercial bank security trading has grown appreciably over the past few years, with the aggregate amount of trading account securities held rising from \$3.2 billion, or 2.5 percent of total securities held by commercial banks at the end of 1969, \$8.7 billion or 4.6 percent at year-end 1973. As of June 30, 1974, trading account securities held by commercial banks totaled \$6.4 billion, or 3.3 percent of their security holdings, compared to \$3.0 billion held on June 30, 1970, or 2.3 percent.

TABLE II-4.—COMMERCIAL BANK TRADING ACCOUNT SECURITIES
[In millions of dollars]

Date	Trading account securities	Investment securities	Total securities	Ratio: Trading account securities to total securities (percent)
	(1)	(2)	(3)	(4)
1969: December.....	\$3,186	\$123,370	\$126,556	2.5
1970:				
June.....	2,979	124,722	127,691	2.3
December.....	5,666	148,403	154,069	3.7
1971:				
June.....	4,131	154,194	158,325	2.6
December.....	5,310	165,041	170,351	3.1
1972:				
June.....	3,351	169,167	172,518	1.9
December.....	5,154	180,045	185,199	2.8
1973:				
June.....	4,712	175,111	179,823	2.6
December.....	8,659	181,188	189,847	4.6
1974: June.....	6,373	184,316	190,689	3.3

Source: Federal Deposit Insurance Corporation "Assets and Liabilities—Commercial and Mutual Savings Banks."

Here again, there is nothing wrong or illegal about banks engaging in extensive security trading as a means of earning additional income. But when a commercial bank suffers losses from its trading operations, and then seeks to conceal the losses by false accounting records, these practices deserve to be questioned. In early October 1974, the Chase Manhattan Bank disclosed that it had uncovered false records by its bond trading department intended to conceal some \$34 million of

losses the department had experienced on an \$800 million bond portfolio. As a result, the bank's quarterly income was reportedly reduced by \$15 million. The vice president in charge of the department was fired, a victim of the continuing pressures within banks to maintain targeted growth rates of income, however earned.⁷

2. Accommodating Anticipatory Borrowing

One of the earmarks of an inflation-prone economy is the rapid growth of business inventories measured in constant dollars. Fearful that rising prices and interest rates would increase the future costs of inventory acquisitions, various non-financial businesses have stockpiled critical raw materials, partially finished goods and final products. In doing so they bid up the prices of these materials, goods and products, helping to bring about the higher prices they anticipated.

TABLE II-5.—STOCK OF BUSINESS INVENTORIES IN CONSTANT (1958) DOLLARS

[In millions of dollars]

	Total	Manu- facturing	Wholesale	Retail	Farm	Other industries
	(1)	(2)	(3)	(4)	(5)	(6)
1970:						
March.....	\$197.1	\$91.5	\$25.8	\$39.1	\$26.7	\$14.1
June.....	198.2	91.9	26.1	39.5	26.7	14.1
September.....	199.5	92.4	26.4	39.8	36.7	14.2
December.....	200.6	93.0	27.2	39.1	26.8	14.5
1971:						
March.....	202.2	92.7	27.1	40.5	27.1	14.7
June.....	203.7	92.7	27.4	41.3	27.4	15.1
September.....	204.8	91.9	27.6	42.5	27.7	15.2
December.....	205.7	91.6	28.4	42.7	27.9	15.3
1972:						
March.....	206.9	91.9	28.5	43.0	28.1	15.5
June.....	209.6	92.4	28.7	43.4	28.3	15.8
September.....	210.7	93.6	29.2	43.5	28.5	16.0
December.....	212.9	94.4	29.6	44.1	28.6	16.3
1973:						
March.....	214.8	95.2	29.5	44.3	29.0	16.4
June.....	216.7	96.1	29.6	45.1	29.4	16.5
September.....	218.7	97.1	29.6	45.6	29.9	16.6
December.....	223.7	99.0	30.6	47.0	30.4	16.8
1974:						
March.....	226.4	100.6	31.3	46.7	30.7	16.9
June.....	228.4	101.5	31.8	46.9	31.3	17.0
September.....	229.2	102.1	31.7	46.5	31.7	17.1
Percent change:						
1973/1972: December.....	+5.1	+4.9	+3.4	+6.6	+6.3	+3.1
1974/1973:						
March.....	+5.4	+5.7	+6.1	+5.4	+5.9	+3.0
June.....	+5.4	+5.6	+7.4	+4.0	+6.5	+3.0
September.....	+4.8	+5.1	+7.1	+2.0	+6.0	+3.0

Source: Bureau of Economic Analysis, Department of Commerce.

Table II-5 depicts the continuing increases of business inventories measured in constant (1958) dollars. As will be noted, with few exceptions, the stock of inventories has grown increasingly large in each sector during the past five years. In the last 12 months, real inventories rose at annual rates in excess of five percent, particularly in the manufacturing, wholesale and farm sectors. Since the overall economy has been sluggish throughout most of the last year, with real GNP actually declining in each of the first three quarters of 1974, these heavy inventory accumulations have grown disproportionately large.

⁷ *Business Week*, October 5, 1974, p 34. Falsification of bank records is a reprehensible act, irrespective of the reason as to why it was done.

In the current period of slackening production and disappointing sales, business managers are now finding these swollen inventories unacceptable as they seek to cut costs in the wake of declining profits. Whereas a year ago they were prepared to build up their stocks to assure steady production in the face of rising costs, now they are beginning to pare these inventories to reduce carrying charges and business losses. The sudden turnaround in views regarding inventory accumulations is already resulting in fewer replacement orders, which, coming at a time of general economic slowdown, will serve to deepen the developing recession and to exacerbate the accompanying level of unemployment.

Although the heavy accumulation of inventories can be attributed mainly to the apprehensions about rising costs and optimism regarding sales prospects, the relative ease at which short-term credits were available undoubtedly helped to dispel any lingering doubts business managers might have had as to whether to build up inventories. The tremendous expansion of short-term commercial and industrial loans by commercial banks, with extensions rising from \$393 billion in the first three quarters of 1973 to \$467 billion in the corresponding period in 1974,⁸ evidences that they experienced little difficulty in obtaining increasingly larger loans. Comparable increases in bankers acceptances and commercial paper issuances by non-financial companies attest further to this credit ease.⁹

To be sure, these loans were being negotiated at increasingly higher interest rates. But the industrial and commercial businesses evidently were willing to pay these higher rates, since over half of the resultant interest costs would be paid by the Federal and State governments because of the deductibility of interest costs under Federal and State income taxes.¹⁰ As a result, they effectively outbid housing and possible other sectors for the available supply of funds.

As a general rule, commercial bank loan officers and other lenders apparently did not probe too deeply in their credit analyses of the commercial and industrial loans to inquire whether the borrowers were accumulating excessive inventories. So long as the loans were adequately backed by collateral (albeit at inflated prices), they concluded that the loans were sound and they consequently approved them. In a sense, these bankers and the other lenders "sat impassionately at their cash registers" approving and disbursing all sorts of commodity loans, secure in their collective belief that each loan was sound because it was fully collateralized. But as the number of business failures rises in the current recession, some loan losses can be expected.

While most banks and other lenders will probably escape substantial losses, unless they are unfortunate enough to have a concentration of bad loans, their over-indulgence in accommodating business anticipatory borrowing remains a cause for concern. By providing the means of financing for the heavy inventory accumulations they were literally the "hand maidens" of this kind of business speculation, that served to accentuate inflationary pressures and helped to set the stage for the precipitous economic downswing now in force.

⁸ See Table A-12 in Appendix A.

⁹ See Table A-12 in Appendix A.

¹⁰ Discussed in the next chapter.

3. Fund Diversions

When credit funds are in tight supply, questions arise, especially from those whose credit needs are not being accommodated, as to whether there are fund diversions out of the U.S. credit markets. Two kinds of diversions are examined in this section—loans to foreign borrowers and direct lease financing by commercial banks.

(a) LOANS TO FOREIGN BORROWERS

As detailed in chapter one,¹¹ commercial banks and other lenders materially stepped up their credit extensions to foreigners during each of the past four quarters, as compared to the amounts loaned out in the corresponding quarters of the previous year. But these credit increases do not necessarily mean that there was a diversion of funds out of the U.S. credit markets, since they were more than offset by an expansion of foreign deposits at U.S. banks. A realistic assessment of these supposed fund diversions requires a comprehensive analysis of the sources and uses of funds vis a vis the United States for the financial institutions that deal in international credits.

Four groups are reviewed below: (1) Domestic operations of U.S. banks, (2) U.S. agencies and branches of foreign banks,¹² (3) non-banking concerns in the U.S., and (4) foreign branches of U.S. banks.

(1) *U.S. Banks*.—Short-term claims of U.S. banks on foreigners (primarily loans and acceptances) doubled from \$9.9 billion at the end of 1973 to \$19.8 billion on September 30, 1974, while long-term claims rose from \$4.8 billion to \$5.6 billion so that total claims advanced from \$14.7 billion to \$25.4 billion (see Table II-6). Meanwhile, total liabilities of U.S. banks to foreigners (mainly deposits, including certificates of deposits) grew from \$22.6 billion to \$33.3 billion.

Although the net liability position of the U.S. banks to foreigners was just \$60 million larger on September 30, 1974, as compared to the end of 1973 (\$7,958 million versus \$7,898 million), total claims as a percentage of total liabilities advanced from 63 percent to 76 percent. Hence, relatively more funds were flowing out of the U.S. through the U.S. banking system than were coming in.

¹¹ See Table I-10 and accompanying text.

¹² At the request of Joint Economic Committee staff, the Treasury Department retabulated its statistics on U.S. banks liabilities to, and claims on, foreigners to show separate figures for (a) U.S. banks and (b) U.S. agencies and branches of foreign banks.

TABLE II-6.—U.S. COMMERCIAL BANKS DOLLAR CLAIMS ON, LIABILITIES TO, FOREIGNERS

[In millions of dollars]

A. CLAIMS ON FOREIGNERS

Date	Short-term claims				Long-term loans (5)	Total claims (6)
	Loans (1)	Acceptances (2)	Other (3)	Total (4)		
1970:						
March.....	\$2,611	\$2,612	\$429	\$5,652	\$2,738	\$8,390
June.....	2,518	2,795	502	5,815	2,719	8,534
September.....	2,548	2,525	486	5,559	2,674	8,233
December.....	2,355	3,438	562	6,356	2,612	8,968
1971:						
March.....	2,289	3,456	557	6,302	2,644	8,946
June.....	2,650	3,302	559	6,511	2,781	9,292
September.....	2,982	3,289	735	7,006	2,990	9,996
December.....	3,819	3,455	568	7,841	3,168	11,009
1972:						
March.....	3,319	3,497	1,235	8,051	3,336	11,387
June.....	3,830	2,651	1,205	7,685	3,671	11,356
September.....	3,971	2,260	1,350	7,620	3,954	11,574
December.....	4,418	2,365	1,327	8,110	4,206	12,316
1973:						
March.....	4,999	2,439	2,055	9,493	4,378	13,871
June.....	5,501	2,735	1,440	7,676	4,619	12,295
September.....	4,963	2,540	1,692	9,196	4,352	13,548
December.....	5,520	2,886	1,577	9,983	4,751	14,734
1974:						
March.....	6,644	3,800	3,001	13,445	4,786	18,231
June.....	8,632	5,905	3,519	18,057	5,669	23,726
September.....	8,199	7,542	4,060	19,801	5,551	25,352

B. LIABILITIES TO FOREIGNERS AND BALANCE

Date	Short-term liabilities			Long-term liabilities	Total liabilities	Net claims (+), net liabilities (-)
	Deposits	Other	Total			
1970:						
March.....	\$19,293	\$6,458	\$25,751	\$1,291	\$27,042	(-\$18,652)
June.....	19,331	5,467	24,798	1,085	25,883	(-17,349)
September.....	18,114	4,170	22,284	855	23,139	(-14,906)
December.....	14,947	2,865	17,812	690	18,502	(-9,534)
1971:						
March.....	11,012	4,084	15,097	530	15,627	(-6,681)
June.....	9,885	3,914	13,799	333	14,132	(-4,840)
September.....	9,778	3,563	13,341	187	13,528	(-3,532)
December.....	88,162	4,656	12,818	200	13,018	(-2,009)
1972:						
March.....	8,070	4,531	12,601	211	12,812	(-1,425)
June.....	9,311	4,820	14,132	242	14,374	(-3,018)
September.....	9,185	5,294	14,478	225	14,704	(-3,130)
December.....	10,523	5,984	16,507	217	16,724	(-4,408)
1973:						
March.....	9,971	6,208	16,179	468	16,647	(-2,776)
June.....	11,423	7,589	19,012	450	19,462	(-7,167)
September.....	11,329	8,236	19,565	477	20,042	(-6,494)
December.....	14,175	7,970	22,145	487	22,632	(-7,898)
1974:						
March.....	14,364	11,294	25,658	408	26,066	(-7,835)
June.....	16,764	12,584	29,358	462	29,820	(-6,094)
September.....	17,288	15,807	33,095	215	33,310	(-7,958)

¹ Includes certificates of deposit and intrabank liabilities.

Source: Special tabulation by Office of International Affairs, Treasury Department.

(2) *Agencies and Branches of Foreign Banks.*—For the U.S. agencies and branches of foreign banks a different pattern emerges. Whereas total claims of such bank offices on foreigners increased from \$6.3 billion at the end of 1973 to \$8.7 billion at the end of September 1974, their total liabilities to foreigners rose from \$12.1 billion to \$16.0 billion and their net liabilities expanded from \$5.8 billion to \$7.3 billion (see Table II-7). As a result, their claims on foreigners as a percentage of liabilities to foreigners edged upward from 52 percent to 54 percent, a minor change compared to the large increase registered by the U.S. owned banks. On the whole, the U.S. agencies and branches of foreign banks were bringing in more funds to the U.S. credit markets than they were drawing out.

(3) *U.S. Non-Banking Concerns.*—In contrast to the net liability position found for banks, non-banking concerns in the U.S. had a net claim position vis-a-vis foreigners. According to the statistics presented in Table II-8, total claims of non-banking concerns increased from \$12.5 billion, as of December 31, 1973, to \$14.9 billion at the end of September 1974, while total liabilities advanced from \$8.2 billion to \$9.0 billion. As a result, their net claims on foreigners grew from \$4.3 billion to \$5.8 billion. In effect, the non-banking concerns have been siphoning funds out of the U.S. credit markets for investment abroad.

TABLE II-7.—U.S. AGENCIES AND BRANCHES OF FOREIGN BANKS DOLLAR CLAIMS ON, LIABILITIES TO, FOREIGNERS

[In millions of dollars]

A. CLAIMS ON FOREIGNERS

Date	Short-term claims				Long-term loans	Total claims
	Loans	Acceptances	Other	Total		
	(1)	(2)	(3)	(4)	(5)	(6)
1970:						
March.....	\$637	\$433	\$96	\$1,166	\$57	\$1,223
June.....	708	492	107	1,308	68	1,376
September.....	681	531	119	1,331	74	1,405
December.....	693	547	204	1,443	85	1,528
1971:						
March.....	709	593	198	1,500	99	1,599
June.....	747	688	165	1,600	117	1,717
September.....	846	759	239	1,844	130	1,974
December.....	681	788	540	2,008	172	2,180
1972:						
March.....	848	914	755	2,517	194	2,711
June.....	923	832	639	2,394	198	2,592
September.....	1,006	708	823	2,536	268	2,804
December.....	1,254	839	1,151	3,243	328	3,571
1973:						
March.....	1,517	1,043	1,653	4,213	403	4,616
June.....	1,816	1,249	1,366	4,431	477	4,908
September.....	1,843	1,178	1,663	4,684	528	5,212
December.....	2,196	1,269	2,304	5,769	576	6,345
1974:						
March.....	2,434	1,325	2,962	6,721	643	7,364
June.....	2,865	1,533	3,578	7,976	717	8,696
September.....	2,443	1,978	3,503	7,924	760	8,684

TABLE 11-7.—U.S. AGENCIES AND BRANCHES OF FOREIGN BANKS DOLLAR CLAIMS ON, LIABILITIES TO, FOREIGNERS—Continued

[In millions of dollars]

B. LIABILITIES TO FOREIGNERS AND BALANCE

Date	Short-term liabilities			Long-term liabilities	Total liabilities	Net claims (+) or net liabilities (-)
	Deposits	Other ¹	Total			
1970:						
March.....	\$5,556	\$1,668	\$7,224	\$160	\$7,384	(-\$6,161)
June.....	5,665	1,929	7,594	140	7,734	(-6,358)
September.....	6,033	2,062	8,095	144	8,239	(-6,834)
December.....	6,377	1,948	8,325	114	8,439	(-6,911)
1971:						
March.....	5,555	1,997	7,552	80	7,632	(-6,033)
June.....	5,455	2,118	7,573	75	7,648	(-5,931)
September.....	5,411	1,959	7,370	54	7,424	(-5,450)
December.....	1,954	5,257	7,212	73	7,284	(-5,104)
1972:						
March.....	1,879	6,149	8,028	61	8,089	(-5,318)
June.....	2,149	7,164	9,313	49	9,362	(-6,770)
September.....	2,183	7,277	9,461	45	9,506	(-6,702)
December.....	2,783	7,483	10,266	36	10,302	(-6,731)
1973:						
March.....	2,670	6,762	9,432	53	9,485	(-4,869)
June.....	2,895	6,981	9,876	59	9,935	(-5,027)
September.....	3,121	7,640	10,761	79	10,840	(-5,628)
December.....	3,775	8,309	12,084	55	12,139	(-5,794)
1974:						
March.....	3,924	9,121	13,045	31	13,076	(-5,712)
June.....	4,079	9,831	13,909	52	13,961	(-5,265)
September.....	4,100	11,808	15,908	84	15,992	(-7,308)

¹ Includes certificates of deposit and intrabank liabilities.

Source: Special tabulation by Office of International Affairs, Treasury Department.

TABLE 11-8.—NONBANKING CONCERNS CLAIMS ON, LIABILITIES TO, FOREIGNERS

[In millions of dollars]

	Claims on foreigners			Liabilities to foreigners			Net claims (+) or net liabilities (-) viz foreigners
	Short term	Long term	Total	Short term	Long term	Total	
	(1)	(2)	(3)	(4)	(5)	(6)	
1970:							
March.....	\$4,275	\$2,744	\$7,019	\$2,234	\$2,358	\$4,592	\$2,427
June.....	4,557	2,757	7,214	2,387	2,587	4,974	2,240
September.....	4,361	2,885	7,246	2,512	2,785	5,297	1,999
December.....	4,160	2,950	7,110	2,677	3,102	5,779	1,231
1971:							
March.....	4,515	2,983	7,498	2,437	3,177	5,614	1,884
June.....	4,708	2,982	7,690	2,375	3,172	5,547	2,143
September.....	4,894	3,019	7,913	2,564	2,939	5,503	2,410
December.....	5,004	3,118	8,112	2,763	3,138	5,901	2,221
1972:							
March.....	5,177	3,191	8,368	2,844	3,093	5,937	2,431
June.....	5,331	3,255	8,586	2,925	3,300	6,225	2,361
September.....	5,495	3,235	8,730	2,933	3,448	6,381	2,349
December.....	6,373	3,493	9,866	3,533	3,688	7,221	2,645
1973:							
March.....	7,200	3,635	10,835	3,460	3,874	7,334	3,501
June.....	7,437	3,703	11,140	3,435	3,857	7,292	3,848
September.....	7,809	3,877	11,686	3,757	4,086	7,843	3,843
December.....	8,575	3,950	12,525	3,215	3,984	8,199	4,326
1974:							
March.....	10,608	4,045	14,653	4,695	3,924	8,619	6,034
June.....	11,165	3,965	15,130	5,188	3,549	8,737	6,393
September.....	10,772	4,084	14,856	5,688	3,341	9,029	5,827

Source: "Federal Reserve Bulletin," tables on short- and long-term liabilities to, and claims on, foreigners reported by nonbanking concerns.

(4) *Foreign Branches of U.S. Banks.*—Less than 10 percent of the resources currently held by the foreign branches of U.S. banks represent funds obtained from banks and firms domiciled in the United States. As shown by the statistics presented in Table II-9, at the end of September 1974 foreign branches owed to their parent banks in the U.S. \$1.5 billion more than the amounts they obtained from the parent banks, whereas in prior years they maintained a surplus position in relation to their parent banks. In addition, foreign branches received more funds from other U.S. firms (via issuances of certificates of deposit bearing higher interest rates than those payable on certificates issued by the banks located in the U.S. and other liabilities) than they loaned out to American firms:

Taken together, the data in Table II-9 indicate that during much of the past year the foreign branches had net liabilities vis a vis U.S. entities, whereas in prior years they had sizeable net claim positions. In other words, the foreign branches in the past year have been draining funds out of the U.S. credit markets.

To recapitulate, although the combined statements for the four groups indicate that the U.S. receives more funds from abroad than it lends or sends out, a reverse pattern appears to have developed in the past year.

TABLE II-9.—FOREIGN BRANCHES OF U.S. BANKS, CLAIMS ON, LIABILITIES TO, UNITED STATES

[In millions of dollars]

	Dealings with parent bank			Dealings with other U.S. firms			Net claims (+) or net liabilities (-) viz U.S. entities (7)
	Claims on (1)	Liabilities to (2)	Net claims (3)	Claims on (4)	Liabilities to (5)	Net liabilities (6)	
1970:							
March.....	\$12,066	\$693	\$11,373	\$1,688	\$2,146	\$458	\$10,915
June.....	12,089	638	11,451	1,938	2,189	251	11,200
September.....	10,253	661	9,592	2,124	2,006	-118	9,710
December.....	7,248	716	6,532	2,491	1,859	632	5,900
1971:							
March.....	4,055	559	3,496	2,714	2,080	634	2,862
June.....	2,661	528	2,133	2,191	2,038	-153	2,286
September.....	2,970	501	2,469	2,077	2,514	437	2,032
December.....	2,302	658	1,644	2,454	2,403	-51	1,695
1972:							
March.....	2,085	635	1,450	2,480	2,411	-69	1,519
June.....	2,279	643	1,636	2,576	2,440	-136	1,772
September.....	2,243	728	1,515	2,709	2,575	-134	1,649
December.....	2,113	997	1,116	2,565	2,504	-130	1,246
1973:							
March.....	1,976	1,209	767	2,283	2,854	571	196
June.....	2,325	1,005	1,320	2,601	3,451	850	470
September.....	1,916	1,180	736	2,890	3,548	658	78
December.....	1,882	1,158	724	3,000	3,912	912	-188
1974:							
March.....	5,172	2,127	3,045	2,603	4,502	1,899	1,146
June.....	4,166	3,011	1,155	2,677	5,539	2,862	-1,707
September.....							

Source: "Federal Reserve Bulletin," tables on assets and liabilities of foreign branches of U.S. banks.

(b) DIRECT LEASE FINANCING

One of the most rapidly growing means of business financing is equipment direct lease financing wherein the lessor-owner acquires and retains ownership of capital equipment such as machine tools, office equipment, jet airplanes, railroad boxcars, barges, farm ma-

chinery and production equipment. These are leased to the lessee-user under one of two basic arrangements: finance (or full payout) leases or operating (or non-full payout) leases. According to the American Association of Equipment Lessors, Inc., during the 1960's, leasing grew at annual rates of between 15 percent and 20 percent and in the early 1970's the annual growth rate is estimated at around 15 percent a year.¹³ This association estimated that at the end of 1973 about \$75 billion of equipment was being provided via direct leasing.

In 1963, the Comptroller of the Currency ruled that national banks may engage in direct lease financing and may incur additional obligations incident to becoming an owner and lessor of the leased property. Thereafter various State banking laws were amended to permit State chartered banks to engage in direct leasing so that by late 1973 State chartered banks in 41 States were permitted to do so.

TABLE II-10.—DIRECT LEASE FINANCING BY COMMERCIAL BANKS

[Dollar amounts in millions]

Date	National banks		State member banks		Insured nonmember	
	Amount	Number of banks	Amount	Number of banks	Amount	Number of banks
	(1)	(2)	(3)	(4)	(5)	(6)
Dec. 31, 1969.....	\$694	353	(1)	(1)	(1)	(1)
Dec. 31, 1970.....	790	390	(1)	(1)	(1)	(1)
Dec. 31, 1971.....	871	446	(1)	(1)	(1)	(1)
Dec. 31, 1972.....	1,073	510	(1)	(1)	(1)	(1)
Dec. 31, 1973.....	1,585	590	\$563	74	(1)	(1)
Apr. 24, 1974.....	1,805	623	596	74	(1)	(1)
June 30, 1974.....	2,107	649	462	79	\$151	221

¹ Not available.

Sources: Data furnished by Comptroller of the Currency, Federal Reserve Board, Federal Deposit Insurance Corporation.

Direct lease financing by national banks has increased dramatically in the past decade, with the amount outstanding rising from \$24 million at year-end 1963 to \$1,585 million at the end of 1973 and to \$2,107 million, by 649 banks, on June 30, 1974. On the latter date, 79 State member banks held \$462 million of leases and 221 insured non-member banks held another \$151 million. Altogether, commercial banks had \$2.7 billion of leased equipment at mid-1974 (see Table II-10).

By virtue of 1970 amendments to the Bank Holding Company Act and a subsequent decision by the Federal Reserve Board to include personal property leasing among their permissible non-banking activities, bank holding companies turned to equipment leasing in a big way. By late 1973, over 120 bank holding companies had established or acquired leasing subsidiaries, including virtually all of the largest commercial banks.¹⁴ At the end of 1973, non-bank subsidiaries of the 25 largest bank holding companies had \$937 million of direct lease financing outstanding.¹⁵

¹³ *Fortune Magazine*, November 1974, p. 51.

¹⁴ Steven J. Weiss and Vincent J. McGugan, "The Equipment Leasing Industry and the Emerging Role of Banking Organizations," *New England Economic Review* (Nov.-Dec. 1973), p. 17.

¹⁵ Special tabulation for the Joint Economic Committee, prepared by Federal Reserve Board staff.

This remarkable growth of commercial bank participation in direct lease financing, by the banks themselves and also by non-bank subsidiaries of bank holding companies, may be attributed to the following. Since lease rentals are payments for the use of property rather than loan repayments, lease financing is not subject to lending limits and interest rate limitations applicable to loans. Some observers estimate that banks or holding company subsidiaries earn $\frac{1}{2}$ to $2\frac{1}{2}$ percent more on a simple interest basis over the lessee's normal borrowing rate.¹⁶ In addition, the lessor realizes gain from the residual value of the leased equipment.

Perhaps the greatest advantages of direct lease financing over regular commercial bank loans are the combined effects of leveraging and Federal income tax benefits. Typically, the lessor bank or holding company subsidiary puts up only a small fraction of the equipment's cost from its own funds, borrowing the rest from commercial banks, life insurance companies and other financial institutions. Under existing Federal income tax law, equipment expenditures enjoy a double tax benefit. First, the owner-lessor obtains a seven percent tax credit for the entire expenditure (including the portion financed by borrowed funds). Second, the owner is accorded accelerated depreciation for the total cost of the equipment (less residual value), including the amount covered by the seven percent investment credit.

All three parties involved in direct lease financing gain from the financial arrangements. The lessor bank or holding company subsidiary earns a very handsome return on its limited equity investment resulting from the high degree of leveraging. A special Federal Reserve Board tabulation of leasing subsidiaries of bank holding companies found that at the end of 1973 there was a leverage factor of 4.5 times for direct indebtedness.¹⁷ If account is taken of non-recourse loans¹⁸ (for which there are no figures presently available), the leverage factor would be substantially higher.

The participating lenders are assured of a well-secured loan since the value of the equipment exceeds the aggregate loan amount; and because the equipment is generally movable, it can be leased to another user in the event the first user defaults on its lease payments. Moreover, when involved, the financial strength of the lessor is usually greater than that of the lessee company. On its part, the lessee gains the use of capital equipment without incurring debt or tying up its own funds (for the equity portion of the cost), an arrangement termed "off balance sheet" financing.¹⁹ For this it is willing to forego the tax incentives for equipment expenditures. However, the lease rentals are tax deductible for the lessee-user.

Owing to the roundabout method of financing wherein the lessor shares a large part of the credit risk attached to the lease rentals with the participating lenders (or passes it off to them), the lessor is likely to be less severe in its credit analysis of the leasing transaction. In fact, since it has so much to gain from the tax benefits, leveraging and sometimes higher financing charges (part of which

¹⁶ Weiss and McGugan *op cit.*, p. 18.

¹⁷ Measured by comparing indebtedness of the leasing subsidiaries to third parties with the sum of the parent holding company equity investments in, and advances to, the subsidiaries.

¹⁸ These non-recourse loans (which do not appear on the subsidiaries' balance sheets) are secured by the rental payments from, and a mortgage lien on, the leased properties.

¹⁹ However, recent SEC rulings require the lessee to disclose in footnotes to its balance sheets the present value of the long-term lease commitments and the effect of the commitments on earnings.

are reportedly passed on to the participating lenders),²⁰ it may have taken the initiative in suggesting direct lease financing to the lessee company when the latter was inquiring about regular credit financing for its equipment needs. Under such circumstances, the lessee may have been induced to lease a larger capacity than it actually needed at the time because of the favorable terms that the lessor was prepared to offer in order to "close the deal."

It is generally recognized that many, if not most, of the Nation's airlines have been suffering losses, which are largely attributable to the fact that they have insufficient passengers to fill their airplane seats. Much of this excess plane capacity has been financed by direct lease financing. This under-utilization reflects either incredibly bad judgments by the airline companies regarding future passenger loads or it results from aggressive salesmanship by the direct leasing firms, many of which are banks or subsidiaries of bank holding companies. Whatever the reason there was a diversion of credit funds²¹ from what might have been more productive uses.

4. Observance of Credit Guidelines: Voluntary or Mandatory

The statistics presented in prior sections clearly evidence that private financial institutions, particularly commercial banks, channeled sizeable amounts of funds into speculative, or non-productive or diversionary uses during the past 12 months, a period that will go down in history as a period of tight money. It stands to reason that a large part of these funds could have been used instead to finance loans in credit starved sectors, especially the housing sector, without upsetting the credit restraint efforts of the Federal Reserve credit authorities. Moreover, there are grounds for believing that had there been fewer bank loans to finance land speculation, inventory accumulations, and excess equipment capacity, there might have been less inflationary pressures and prices might not have risen to the extent that they did.

To assure that funds otherwise available in the credit markets are not used to finance speculation, anticipatory borrowing or other diversions, requires the establishment of some kind of credit guidelines that lists purposes and uses for which credits should be expanded and identifies purposes and uses for which credits should be curtailed. Observance of these guidelines could be voluntary or mandatory. These alternatives are considered below.

(a) VOLUNTARY GUIDELINES: FEDERAL ADVISORY COUNCIL EXPERIENCE

On September 16, 1974, the Board of Governors of the Federal Reserve System released a statement on bank lending policies developed by the Federal Advisory Council (a statutory body established under the Federal Reserve Act) suggesting how banks can effectively adapt lending policies in the current period of credit restraint. The FAC statement, together with the Board's announcement, was mailed to all member banks in the Federal Reserve System.

²⁰ To cover the greater risk. See Peter Vanderwicken, "The Powerful Logic of the Leasing Boom," *Fortune Magazine* (Nov. 1973), p. 135.

²¹ According to a study, "Survey of Leasing Activities," of registered bank holding companies, prepared by Carter Golembe Associates for the Association of Registered Bank Holding Companies, in early 1974 most of the credit funds obtained came from the bank affiliates of the holding companies.

Briefly, the FAC identified certain types of loans that would be inappropriate or unsuitable uses of the limited supply of bank funds during a period of credit restraint. The restricted categories include: (1) Purely financial activities, such as acquisitions or the purchase of a company's own shares; (2) loans for speculative purposes, such as purchasing securities or commodities other than in the ordinary course of business, excessive inventory accumulation, or investing in land without well-defined plans for its useful development; (3) loans to foreigners which divert loan funds from United States customers.

On the other hand, the Federal Advisory Council listed categories where credit should be expanded. They include: (1) Normal operations of established business customers, to assure the production and distribution of goods and services; (2) homebuilding; (3) capital investment to improve productivity or to increase capacity to meet existing or clearly anticipated demand, with particular attention to the relative importance of the borrower's product or service and the borrower's significance as an employer in the local area; (4) consumer credit to finance the basic requirements of individuals for household needs and automobiles, but not for discretionary spending which might be deferred.

On October 11, 1974, Mr. John R. Stark, Executive Director of the Joint Economic Committee, sent a letter to the 300 largest commercial banks (as of mid-1973) requesting that they furnish the percentages of their total loans and investments, as of September 1, 1974, that were accounted for by these loan categories. The banks were also asked to indicate their target percentages for these categories as of June 1, 1975 and July 1, 1975. The banks were requested to reply to this letter by November 10, 1974.

Through December 3, a total of 166 replies were received from the 300 banks to which the JEC letter was sent. These 166 responses were examined by JEC staff in terms of whether they conveyed information regarding bank lending in the categories which the FAC said should be restricted. (Since commercial banks ordinarily make the loans that fall under the categories which the FAC said should be expanded, the staff concluded that it did not seem too informative to learn that the banks, in fact, do hold most of their loans in these categories.)

Of the 166 responses received, the staff found that 80 of the banks indicated specifically whether they did or did not hold the "restricted type" loans in their portfolios. Fifty-four of the banks provided specific quantification of the percentage of loans accounted for by the restricted type categories, 14 banks stated that they had minimal amounts of such loans but provided no quantifications and 12 banks explicitly stated they do not make such loans (see Table II-11).

Of the remaining 86 banks that responded, the JEC staff found that 71 advised that they cannot compile the requested information from their records without inordinate expense and effort, 5 banks questioned the propriety of the JEC inquiry, 4 banks said the data are, or could be, available from statistics compiled by the Federal Reserve, and 6 banks had miscellaneous reasons for not providing the categorical breakdowns.

TABLE II-11.—COMMERCIAL BANK RESPONSES TO JEC LETTER RE OBSERVANCE WITH FEDERAL ADVISORY COUNCIL CREDIT SUGGESTIONS

Nature of response and number of responses

A. Responded to inquiry re "restricted type" loans:	
1. Do not make such loans.....	12
2. Have minimal amount, but no quantification.....	14
3. Quantified volume of "restricted type" loans.....	54
(a) Under 1 percent of loans.....	22
(b) 1-5 percent of loans.....	19
(c) Over 5 percent of loans.....	13
4. Banks responding to inquiry.....	80
B. Did not respond to inquiry re "restricted type" loans:	
1. Cannot compile requested information from banks' records.....	71
2. Questions propriety of JEC inquiry.....	5
3. Says data are, or could be, available from Federal Reserve.....	4
4. Calls for definition of terms.....	1
5. Says information being tabulated.....	3
6. Other negative responses.....	2
7. Banks not responding to inquiry.....	86
C. Total responses received.....	166

The low response rate of slightly over 50 percent to a Congressional inquiry by a group of financial institutions that are subject to Federal supervision, either as national banks or as State member banks of the Federal Reserve System does not augur well for voluntary credit guidelines. In this connection, the aforementioned JEC staff study concluded:

The fact that 86 of the 166 bank respondents replied that they could not furnish the requested information suggests that either they have poor data retrieval systems (despite the large sums of money spent by most large commercial banks in computerizing their files of loan data) or that they did not want to bother to find out how well they performed in terms of suggested loan patterns propounded by an officially recognized group of prominent commercial bankers. Presumably, some of the banks did not want to admit that they had been making loans that could be categorized as speculative, non-productive or diversionary.

At the time of this writing (early December 1974), the Federal Reserve Board is developing a questionnaire for the purpose of compiling periodic information on the nature of bank accommodation to the Federal Advisory Council statement on commercial bank lending policies. Perhaps these surveys will be more successful than the JEC inquiry.

(b) MANDATORY GUIDELINES: THE ALTERNATIVE

In reporting on the aforementioned JEC study, the *American Banker* obtained statements from several of the large commercial banks that did not supply the requested information. They included the following:²²

Morgan Guaranty Trust Company.—We have not considered the council's statement as intending that extensions of credit made in the normal course of a bank's business be quantified in this way.

Chase Manhattan Bank.—While we share in the objectives of the program, we regretfully are not in a position to supply information requested since we maintain no such detailed compilation of purposes of loans on our books.

Manufacturers Hanover Trust Company.—We respectfully request that you accept our assurance and representation that we have conducted our lending activities in compliance.

²² *American Banker*, December 6, 1974, p. 16.

First National City Bank.—As we understand these guidelines, they were contemplated to be essentially prospective in nature.

These statements reflect an unwillingness on the part of large commercial banks to face up to the realities of today's economic situation. Worried by the deepening recession and troubled by the disaster that hit the housing industry, neither the Congress nor the critical sections of the general public are likely to be calmed by "business as usual" statements, assertions that the purposes of loans made are unknown or by assurances that better credit allocations will be observed in the future. In commenting upon the poor response rate to the JEC survey, Congressman Henry S. Reuss declared:²³

With inflation running at 12 percent and unemployment climbing to its highest level since the Great Depression, we can no longer afford to waste credit on non-productive and speculative uses—from empty Florida condominiums to gambling in foreign exchange—while uses that provide jobs and expand supplies—low- and middle-income housing, and productive capital investment, for example—go begging.

Failure to develop meaningful responses to such critical commentary could lead to the imposition of mandatory credit controls, which are already authorized by existing Federal law. Under the Credit Control Act,²⁴ upon authorization by the President the Federal Reserve Board can institute a broad range of credit control measures. It can prescribe maximum amounts of credit that may be extended, maximum interest rates and repayment periods, minimum down-payments, methods for determining purchase prices or market values and various reserve ratios, and it can "prohibit or limit any extensions of credit under any circumstances the Board deems appropriate."

In a speech on December 5, 1974, Mr. George A. Le Maitre, a Director of the Federal Deposit Insurance Corporation, observed that the best case bankers will have against mandatory credit allocation is to demonstrate that they can allocate loans themselves equitably, rather than arguing that controls interrupt free market forces. He said:

In the present political and economic environment the failure to make that case will and should sooner or later lead to further Federal intervention.²⁵

To conclude, the private financial community has an opportunity to forestall mandatory credit controls by demonstrating conclusively that it is meeting all of the high priority national and local credit needs at moderate interest rates and that it has sharply cut back, if not terminated, credits for speculative or non-productive or diversionary purposes. It can do so by establishing clear guidelines for lending policies and by cooperating with Federal surveys designed to quantify the degree of compliance by banks and other financial institutions.

If these private financial institutions are unable or unwilling to monitor voluntarily their credit operations and to curb speculative loans, anticipatory borrowing and other non-productive activity, then some form of credit controls can be expected. If they do occur, the banks and other financial institutions will have no one to blame but themselves.

²³ *American Banker* (November 26, 1974), p. 10.

²⁴ Title II of Public Law 91-151, approved December 23, 1969.

²⁵ Speech before the Virginia Bankers Association's Committee on Bank Management. (See *American Banker*, December 6, 1974, p. 1.)

CHAPTER III. INTEREST COST CONSIDERATIONS

The primary objective of Federal Reserve monetary and credit policies is to provide a financial environment that sustains continuing economic growth without excessive increases in prices or levels of unemployment. In pursuit of this objective, the Federal Reserve credit authorities employ various credit policy instruments to expand the money supply and to adjust credit conditions commensurate with the needs of the economy. If the economy expands too quickly and inflationary pressures reach disturbing proportions, the credit authorities invariably initiate credit tightening policies, which are quickly manifested by increase in interest rates. Alternatively, if the economy slows down and unemployment rises to intolerable levels, the Federal Reserve takes steps to loosen credit, which are soon reflected by lower interest rates.

Since they are so easily recognizable, interest rate adjustments are generally regarded as the bellwether of credit conditions. In the economic literature many learned studies have been written about how changes in interest rates serve as the mechanism by which equilibrium is restored to credit markets. So long as the economy is relatively "inflation free," the interest rate changes need not be too large to accomplish their intended objective, as evidenced by the U.S. experience in the 1950's and early 1960's. But in an "inflation-prone" economy such as prevailed in the past two years, the interest rate changes were of massive proportions.

Consequently, during the past year, interest rates in virtually all credit market sectors rose to historically high levels. These large increases were deemed necessary as a means of allocating credit in an economy beset by inflationary expectations that led to anticipatory borrowing by those who feared further rises in prices and interest rates and insistence on the part of lenders for an "inflation premium" to compensate for the declining purchasing power of their loan funds. Despite these record levels of interest rates, borrowing continued to grow via short-term credits, as detailed in Chapter I.

In relying upon high interest rates to screen out less urgent and "marginal" credit demands, the Federal Reserve credit authorities apparently were reflecting the conventional wisdom regarding the efficacy of interest rates as the mechanism for restricting credits. But interest rate theory does not allow sufficiently for the "real world" considerations entertained by borrowers and lenders. Both are heavily influenced by tax considerations. The borrower thinks in terms of how much of his interest cost can be shared with Federal and State tax-collectors through deductibility of interest costs and the lender thinks in terms of how much of his interest income can be sheltered by outright tax exemption or by various tax preferences. Business borrowers are also motivated by a belief that higher interest costs can always be passed on as part of their costs of production.

This chapter deals with these "real world" considerations. It consists of four sections. Section one examines the unequal burdens of rising interest costs because of tax factors and seeks to measure the extent to which the recent historically high interest rates are, in reality, being borne by the U.S. Treasury. Section two investigates the effects of higher interest rates on the Consumer Price Index. Section three reviews the debate on the impact of high interest rates on the general price level and Section four analyzes the effects of higher interest costs on housing.

1. Tax Considerations

Under existing tax law, interest costs are regarded as a necessary cost of producing business income and they are, therefore, deductible from taxable income as a business expense. For individuals filing personal income tax returns, interest paid on their home mortgage loans, consumer debt or other borrowings is also deductible from taxable income. Although individuals and businesses are treated equally with respect to the deductibility of interest costs, in reality the tax impacts differ materially.

For the business corporation with a taxable income over \$25,000, an additional dollar of interest cost will involve an after tax outlay of around 45 cents since its marginal tax bracket under the Federal income tax is 48 percent and its tax bracket under State income taxes averages around 7 percent. For moderate income families with four persons and a taxable income of \$4,300, an additional dollar of interest cost will involve an after tax outlay of around 84 cents since it is in the 14 percent tax bracket under the Federal income tax and its State income tax bracket is about 2 percent. Families with incomes too low to pay income taxes would have to pay the entire amount of any increase in interest costs.

Over the years, in response to credit tightening policies, lenders raised interest rates on their new loans and investors were able to obtain higher yields on the new securities being issued. According to economic theory, higher interest rates are supposed to reduce credit demands of those unwilling or unable to pay the increased rates so that they are brought into line with the available supply to achieve a "new equilibrium." However, business corporations can disregard a substantial part of any increase in interest rates since they bear less than half of the higher interest cost as a result of the deductibility of interest payments in calculating income tax liability. Households also can deduct interest payments in calculating income tax liability. But since most homeowners and consumers are in the lower tax brackets (below 20 percent), they bear the brunt of any competitive escalation of interest rates and they fall hopelessly behind in trying to outbid the business, foreign and financial sectors for the available supply of loan funds.

Not only does the U.S. Treasury, and ultimately the American taxpayer, bear nearly half the interest costs paid by corporate borrowers, but they also bear the entire cost of higher interest rates on the public debt. Moreover, when interest rates rise, the U.S. Treasury bears the cost of additional tax revenues foregone on account of the tax exemption accorded to the interest on municipal securities. In effect, the Federal Government, in one way or another, pays¹ for a large share of the rise in interest costs occasioned by the higher level of interest rates produced by severe credit restraints.

The extent of such "interest cost sharing" has been quantified in Appendix B. Briefly, this Appendix measures the additional interest costs that were paid, or contracted for, during the 12 months of October 1973 through September 1974 as a result of the record levels of interest rates in this period. For each identifiable group of borrowers, the Appendix shows the amount of "incremental interest costs" it was required to pay and the extent to which these incremental interest costs were probably shifted to the U.S. Treasury because of deductions permitted under the Federal income tax. The Appendix then distributes these incremental interest costs among the financial institution groups that made the loans or acquired the securities, and assesses the extent to which they paid Federal income taxes on the resultant "incremental interest income."

For the purpose of this analysis, incremental interest costs paid by each borrowing group represent the amounts it borrowed in the past year multiplied by an interest rate differential reflecting the difference between the interest rates it actually paid, or contracted to pay, and the rates it would have paid had the interest rates prevailing in the preceding year been in effect.² To facilitate the computations, all of the calculations were applied to quarterly interest rate and credit extension data, which were then aggregated to provide the annual figures summarized in Tables III-1 and III-2.

According to the statistics presented in Table III-1, the "additional" interest costs paid by U.S. borrowers for funds borrowed during the year October 1973 through September 1974 aggregated \$17.6 billion. Of this amount, \$2.6 billion represent incremental interest costs paid by the U.S. Treasury on Treasury securities issued in this period. Of the remaining \$15.0 billion, it is estimated that about \$6.0 billion were shifted to the U.S. Treasury through deductibility of interest costs so that the private borrowers involved paid, on an after tax basis, only about \$9.0 billion of their incremental interest costs.³

¹ Including larger payments under interest subsidy programs.

² As explained in Appendix B, only the amounts borrowed in this 12 month period are relevant to this analysis. While the interest rate differentials could have been calculated for any other prior 12 months, the rates prevailing in the immediately preceding year seemed to be most appropriate for this comparison.

³ Between \$5 billion and \$1.0 billion of this \$9.0 billion were probably shifted to State governments because of the deductibility of interest costs under State income taxes.

TABLE III-1.—WHO PAID INCREMENTAL INTEREST COST ON CREDITS EXTENDED TO U.S. BORROWERS DURING YEAR ENDING SEPTEMBER 1974

[Dollar amounts in millions]

Economic sector (loan category)	Incremental interest cost			Borrowers' marginal tax rate (percent)
	Total paid	Paid by borrower	Paid by Treasury	
	(1)	(2)	(3)	
A. Housing sector:				
1. Mortgage loans:				
I to 4 family	\$673	\$511	\$162	24
Multifamily	114	62	52	46
2. Construction loans	573	310	263	46
B. Agriculture sector:				
1. Farm ownership loans	37	30	7	20
2. Farm operation loans	260	208	52	20
C. Consumer sector:				
1. Installment loans	425	357	68	16
2. Noninstallment loans	10	8	2	22
D. Federal Government sector:				
1. Short-term marketable	1,523		1,523	0
2. Long-term securities	266		266	0
3. Other securities	811		811	0
E. State and local government sector:				
1. Bonds	114	114	0	0
2. Notes	250	250	0	0
F. Industrial-commercial sector:				
1. Long-term securities	281	152	129	46
2. Long-term loans	3,186	1,720	1,466	46
3. Short-term credits	4,776	2,579	2,197	46
G. Financial sector:				
1. Federal agencies	477	421	56	
FNMA	(117)	(61)	(56)	48
Other agencies	(360)	(360)	(0)	0
2. State housing finance agencies	22	22	(10)	0
3. Advances to S. & L.'s	234	164	70	46
4. Credits to banks and finance companies	2,362	1,275	1,087	46
5. Loans to other financial institutions	850	654	196	46
H. Other credits:				
1. Stock market	277	150	127	46
2. Land loans	109	59	50	46
I. Total	17,630	9,046	8,584	

Source: App. B.

As detailed in Table III-2, of the \$17.6 billion of the incremental interest income accruing to lenders and investors, about \$4 billion constituted tax exempt interest on obligations issued by State and local governments. Of the remaining \$17.2 billion, approximately \$2.6 billion were received by investor groups that are exempt from the Federal income tax⁴ and another \$.6 billion were received by the Federal Reserve Banks (that are assumed to transfer about 95 percent of it to the U.S. Treasury). The balance of \$14.0 billion was received by lenders-investors subject to the Federal income tax who paid about \$6.2 billion of taxes on this incremental interest income.

Thus, in terms of additional interest paid on the public debt and tax revenues foregone on account of deductibility of interest costs, the higher interest rates prevailing during October 1973 through September 1974 cost the U.S. Treasury about \$8.6 billion. However, the Treasury recouped \$6.8 billion, including \$6.2 billion of tax receipts and \$.6 billion via payments from the Federal Reserve Banks. The net effect of these costs and payments was an apparent net cost to the U.S. Treasury of \$1.8 billion. Added to this amount would be another \$.2 billion representing tax revenues foregone on account

⁴ Federal and State credit agencies, State and local governments, U.S. Investment Accounts, foreign official institutions, other foreign investors, private pension and public retirement funds, credit unions and REIT's.

of tax exemption accorded to the interest income on State and local government securities.⁵

TABLE III-2.—WHO RECEIVED INCREMENTAL INTEREST INCOME ON CREDITS EXTENDED TO U.S. BORROWERS DURING YEAR ENDING SEPT. 30, 1974

[Dollar amounts in millions]

Lender-investor group	Incremental interest income			Lenders marginal tax rate ¹ (percent)
	Total received	Retained by lender	Paid to Treasury	
Total incremental interest.....	\$17,630	\$10,823	\$6,806	
Tax exempt interest.....	386	386	0	0
Taxable interest.....	17,244	10,437	6,807	
Distribution of taxable interest:				
A. Tax free investors ²	2,573	2,573	0	0
B. Federal Reserve banks.....	646	32	614	(95)
C. Tax benefit lenders: ³				
1. Mutual savings banks.....	173	138	35	20
2. Savings and loan associations.....	603	452	151	25
3. Life insurance companies.....	239	210	29	12
Subtotal.....	1,015	800	215	
D. Fully taxable lenders:				
1. Commercial banks.....	10,181	5,498	4,683	46
2. Individuals (savings bonds) ⁴	28	21	7	24
3. Other lenders ⁵	2,801	1,513	1,288	46
Subtotal.....	13,010	7,032	5,978	

¹ Based on advice from knowledgeable sources.

² Federal credit agencies, State credit agencies, State and local governments, U.S. Investment Accounts, foreign official institutions, foreign investors, private noninsured pension funds, State and local government retirement funds, credit unions, real estate investment trusts.

³ The marginal tax rates shown for these "tax benefit" lenders reflect the special tax treatment accorded to thrift institutions and life insurance companies.

⁴ Investors of Treasury savings bonds tend to be in the lower tax brackets.

⁵ Mortgage companies, finance companies, retail outlets, nonfinancial corporations, fire and casualty insurance companies, personal trusts and estates, individuals and others.

Source: Tables B5a-B5h.

This total of \$2.0 billion should be regarded as the minimum net cost to the U.S. Treasury resulting from the record levels of interest rates during the 12 months ending September 1974. As a practical matter, commercial banks (which received \$10.2 billion of the \$17.6 billion of incremental interest income) are known to shelter most of their income from taxes so that their average effective tax rate comes to about 16 percent.⁶ Allowing for comparable tax savings by "other lenders," including large non-financial corporations,⁷ the Treasury might have lost another \$3.0 billion via tax revenues foregone, bringing the total net cost to the U.S. Treasury to about \$5.0 billion, or around 28 percent of the incremental interest costs.

The perverse effects of high interest rates during an inflationary period are beginning to be recognized by some economists and others. For example, in a paper presented in September 1973, Professor Ezra

⁵ Assuming that the average marginal tax rate of investors who acquired tax exempt securities was 44 percent.

⁶ According to data tabulated by Donald J. Mullineau, "The Taxman Rebuffed: Income Taxes at Commercial Banks," *Business Review of the Federal Reserve Bank of Philadelphia* (May 1974), p. 13, the average effective tax rate for commercial banks was 16.8 percent in 1972. Knowledgeable observers advise that the commercial banks have improved their tax sheltering efficiency so that their average tax rate in 1974 was about 16 percent.

⁷ A study by the Joint Committee on Internal Revenue Taxation found that 143 major corporations (including banks) paid an effective Federal income tax rate of 23.6 percent in 1973 (reported by the *Wall Street Journal* on December 19, 1974).

Solomon (a former member of the Council of Economic Advisers) observed:

Increases in interest rates, which are wholly or largely due to inflation itself, do not serve to reduce the demand for credit in a world of tax-deductibility. Indeed in some situations their effect can be perverse. Assume for example that the nominal rate of interest is 5 percent in a world that perceives zero inflation. At a 50 percent tax rate the real cost of interest is 2.5 percent. Assume that expected inflation rises to 4 percent per annum and that the nominal interest rate rises to 9 percent. The after-tax nominal cost would be 4.5 percent, but the real after tax cost *falls* to 0.5 percent.⁸

To deal with these perverse effects, some observers have proposed radical changes in the Federal income tax law. One would have the U.S. Treasury disallow 50 percent of deductible interest costs in excess of a 9 percent rate paid by corporate borrowers on loans in excess of \$2 million as a means of lessening "the demand for money, particularly for the purpose of inordinate inventory accumulation and speculation as such."⁹

A second would deny the deductibility of corporate borrowing costs on loans to finance inventory, with such inventory financing loans being identified by comparing unit inventory to sales ratios to increases in corporate borrowings.¹⁰

In view of the impracticality of amending the Federal income tax law along these lines, the above-described perverse effects of high interest rates in an inflationary period are likely to continue. This prospect, coupled with the fiscal burdens¹¹ occasioned by high interest rates and the tax inspired inequalities in the competition for loan funds, raises some serious questions regarding efficacy of raising interest rates as part of a policy designed to curb inflation. These disquieting factors should be viewed in the context of the fact that the high interest rates of the past year were accompanied by an overall increase in credits, rather than the commonly supposed decrease.

2. Effects on Consumer Price Index

Households are directly affected by interest rate changes whenever they buy on credit. Because of their heavy cost relative to family income, most home purchases are financed by mortgage loans. Similarly, a substantial portion of household purchases of automobile and other durable consumer goods are financed by installment loans. Households also utilize personal loans, single payment loans, charge accounts and service credits to finance a variety of purchases and family needs.

Of these household credits, the financing charges of only two are explicitly covered in the Consumer Price Index compiled by the Bureau of Labor Statistics of the Department of Labor. One is the mortgage interest cost for homeownership, for which statistics are compiled and the other is automobile financing charges, which are imputed from automobile purchase costs. By far, the most important is the mortgage interest cost for home purchase.

⁸ Ezra Solomon "Monetary Policy and Credit Allocations—The Basic Issues." *Credit Allocation Techniques and Monetary Policy*, conference sponsored by the Federal Reserve Bank of Boston in September 1973 (Conference Series No. 11) p. 11.

⁹ Ralph M. Gomar, letter to the Financial Editor of the *New York Times* (printed in the Business and Finance Section of the July 28, 1974 issue), p. 2.

¹⁰ Paul J. Sherman, letter to the Editor of the *New York Times* (printed in the October 11, 1974 issue).

¹¹ Which tend to be regressive because the tax brackets of most taxpayers who wind up paying for the above described net costs to the U.S. Treasury are appreciably lower than the tax brackets of lenders, investors and of those who hold deposits.

Table III-3 traces the relative importance of homeownership mortgage interest in the Consumer Price Index between December 1963 and September 1974. As will be noted, the ratio of home mortgage interest cost to total consumption expenditures has fluctuated within this period from 2.82 percent in December 1964 to 4.22 percent in September 1974. Significantly, this ratio rose sharply each time there was a pronounced increase in mortgage interest ratio.

Thus, in 1966 when mortgage interest rates increased by 12.5 percent the relative importance of home mortgage interest costs to total consumption expenditures rose from 2.84 to 3.09 percent, or 9 percent higher. In 1968, mortgage rates went up 12 percent, while the relative importance ratio increased by 11 percent and in 1969 mortgage rates advanced 11 percent, while the relative importance ratio grew by 12 percent. In 1970, the ratio rose another 12 percent, while mortgage interest rates increased by 7 percent. In 1964, 1967, 1971 and 1972 mortgage interest rates declined and the relative importance of mortgage interest costs decreased by comparable percentages.

TABLE III-3.—RELATIVE IMPORTANCE OF HOMEOWNERSHIP, MORTGAGE INTEREST IN CONSUMER PRICE INDEX¹

Date	Home mortgage interest	
	Cost as percent of all expenditures	Annual growth of rate ²
December:		
1963.....	2.83	-1.2
1964.....	2.82	- .6
1965.....	2.84	.9
1966.....	3.09	12.5
1967.....	3.04	- .9
1968.....	3.38	11.7
1969.....	3.79	11.3
1970.....	4.17	6.9
1971.....	3.75	-11.0
1972.....	3.70	- .9
1973.....	4.05	14.7
1974.....	* 4.22	* 7.2

¹ Dollar amount of mortgage interest cost (reflecting interest rate and size of loan) as related to total consumption expenditures used in calculating Consumer Price Index.

² Annual growth rate of mortgage interest rate from December to December.

³ Estimated for September 1974.

⁴ Growth rate for 9 months.

Sources: Bureau of Labor Statistics "Relative Importance of Components in the Consumer Price Index," printout on mortgage interest rates.

During the 21 months of January 1973 through September 1974, mortgage interest rates jumped 22 percent, while the relative importance of mortgage interest costs to total consumer expenditures advanced from 3.70 percent to 4.22 percent, an increase of 14 percent. In effect, in September 1974, the proportion of the monthly expenditure budget of urban wage earners and clerical workers to pay for home mortgage interest costs was 50 percent more than they allocated in December 1964, when the relative importance ratio was 2.82 percent.

It should be noted that these relative importance ratios are largely due to the way the Consumer Price Index is constructed. Since the quantities and qualities of the goods and services priced for the Index are kept essentially unchanged, any movement in the Index is due to changes in prices. This necessitates periodic (annual) adjustments of the value weights and corresponding relative importance

ratios by the different rates of price change among the various items included in the Index. For those items with price increases greater than the average price increase, the relative importance ratios are expanded, while for those items with price increases less than the average the relative importance ratios are reduced.

In other words, when home mortgage interest rates rise more rapidly than the average of consumer prices, as has been the case in each of the recent periods of tight credit, those families who purchase homes in such periods have to allocate a larger share of their consumption expenditures for mortgage interest costs. This greater importance attributed to mortgage interest costs, in turn, contributes further to the upward movement of consumer prices. In this sense, rising interest rates can be regarded as inflationary.

3. *Effects on General Price Level*

If higher interest rates paid by consumers can be considered to be inflationary, does it follow that higher interest rates paid by business companies are also inflationary, as contended by Congressman Wright Patman, Chairman of the Joint Economic Committee, and by spokesmen for organized labor? They argue that since interest is one of the costs of doing business, higher interest rates, like higher wages tend to raise rather than lower prices.

In their assessment of this contention, Professors Lawrence S. Ritter and William L. Silber comment:

Higher interest rates *do* increase costs, and thereby push up prices from the supply side. They also do result in large incomes for lenders, owners of savings deposits, and bondholders, enabling them to increase their spending, thereby pulling prices up from the demand side * * *. Higher interest rates *do* raise costs and incomes and thereby generate cost-push and demand-pull inflationary pressures.¹²

They point out, however, that neither wage increases (in excess of productivity gains) nor interest rate increases alone could fully explain either cost-push or demand-pull inflation. They note that if inflation is to be maintained for any sustained period of time, the wage increases or the interest rate increases must be accompanied by continued injections of new money. As they put it:

Permissive increases in the money supply are a necessary condition for the continuation of inflation. If the central bank does *not* increase the money supply, or actually reduces it, inflation will sooner or later peter out, regardless of the strength of unions or the monopoly power of business.¹³

As will be noted, Professors Ritter and Silber distinguish between the short-run cost and income after effects of higher interest rates, which they conclude are inflationary, and the subsequent effects of further increases in prices, which may or may not occur depending upon what happens to the money supply. Hence they argue that rising interest rates resulting from monetary restriction:

Should be equated *not* with higher wages plus an enlarged money supply, which is typically the equation that is implied, but with higher wage rates accompanied by a constant or lower money supply—as if every time wages increased by so many percent, the central bank automatically cuts back the rate of growth in the money supply a similar percent. For this, in general terms, is what happens when interest rates rise during a period of *tight* money.¹⁴

¹² Lawrence S. Ritter and William L. Silber *Money* (New York: Basic Books, Inc. 1973) pp 85-86. Virtually the same language also appears in the textbook by Ritter and Silber *Principles of Money, Banking and Financial Markets* (New York: Basic Books, Inc., 1974) pp 202-204.

¹³ *Ibid*, p. 86.

¹⁴ *Ibid*, p. 87.

They conclude:

With a constant or lower money supply, further increases in the price level would be difficult to finance, the higher interest rates will choke off some spending, and sooner or later total expenditures will stop rising. At that point the inflation process will grind to a halt, regardless of the higher costs, as a result of tight monetary policy.¹⁵

The remarks of Professors Ritter and Silber are quoted at length because they succinctly set forth the conditions under which higher interest rates, after the initial cost and income effects, are not further inflationary. They are not further inflationary only when money supply is constant or contracted. As detailed in Table III-4, during each of the 12 months running from October 1973 through September 1974 the seasonally adjusted money supply under the three commonly accepted definitions experienced increases, with one exception.¹⁶

TABLE III-4.—MEASURES OF THE MONEY STOCK

[All figures seasonally adjusted in billions of dollars]

	M ₁	M ₂	M ₃
1973:			
September.....	\$265.5	\$556.8	\$873.5
October.....	266.6	561.9	880.3
November.....	269.2	567.3	887.7
December.....	271.4	572.1	894.8
1974:			
January.....	270.6	575.1	900.1
February.....	273.1	581.2	908.3
March.....	275.2	585.0	914.6
April.....	276.7	588.5	919.9
May.....	277.8	591.0	923.1
June.....	279.6	596.2	929.2
July.....	280.0	598.9	932.9
August.....	280.6	602.0	936.4
September.....	280.7	603.1	938.4

Note: Composition of the money stock measures is as follows:

M₁: Averages of daily figures for (1) demand deposits of commercial banks other than domestic interbank and U.S. Government, less cash items in process of collection and Federal Reserve float; (2) foreign demand balances at Federal Reserve Banks; and (3) currency outside the Treasury, Federal Reserve Banks, and vaults of commercial banks.

M₂: Averages of daily figures for M₁ plus savings deposits, time deposits open account, and time certificates other than negotiable CD's of \$100,000 of large weekly reporting banks.

M₃: M₂ plus the average of the beginning- and end-of-month figures for deposits of mutual savings banks and for savings capital of savings and loan associations.

Source: Federal Reserve Bulletin (November 1974), p. A-14.

M₁ (currency in circulation plus demand deposits) increased from \$265.5 billion in September 1973 to \$280.7 billion in September 1974, a growth of 5.7 percent. M₂ (M₁ plus savings and time deposits at commercial banks, excluding large negotiable certificates of deposit) advanced from \$556.8 billion in September 1973 to \$603.1 billion in September 1974, an expansion of 8.3 percent. M₃ (M₂ plus deposits at mutual savings banks and savings capital of savings and loan associations) rose over the same period from \$873.5 billion to \$938.4 billion, an increase of 7.4 percent.¹⁷

In view of the foregoing, coupled with the fact that short-term business credit extensions expanded considerably throughout this year, it would appear that the relatively high interest rates paid by businesses on loans obtained during the year served to raise business prices, thereby contributing to the inflationary spiral.

¹⁵ *Ibid.*, p. 87. However, unless there is a decline in prices, the price increases reflecting the higher interest costs remain.

¹⁶ M₁ decreased by 3/10 of one percent in January 1974.

¹⁷ *Federal Reserve Bulletin* (November 1974), p. A. 14.

4. *Effects on Housing*

Housing is a unique commodity in that it is both a consumer good and a capital good. As a consumer good, along with food and clothing, housing is one of three basic necessities for human sustenance. Unlike the other necessities, housing has several unique characteristics. First of all, satisfaction of the need for a housing unit can be postponed for one household by doubling up with another household. Still, the need cannot be eliminated entirely, for an American family simply must have shelter. In some nations, such as India, it is recognized that there is not enough housing for all so that it has become accepted that many families will have to live in the streets. However, since the standards of this country will not tolerate such a situation, housing is considered a necessity for even the poorest family. Moreover, a wealthy country such as the United States seems prepared to go an extra step and say that *decent* shelter is a necessity, not a luxury.

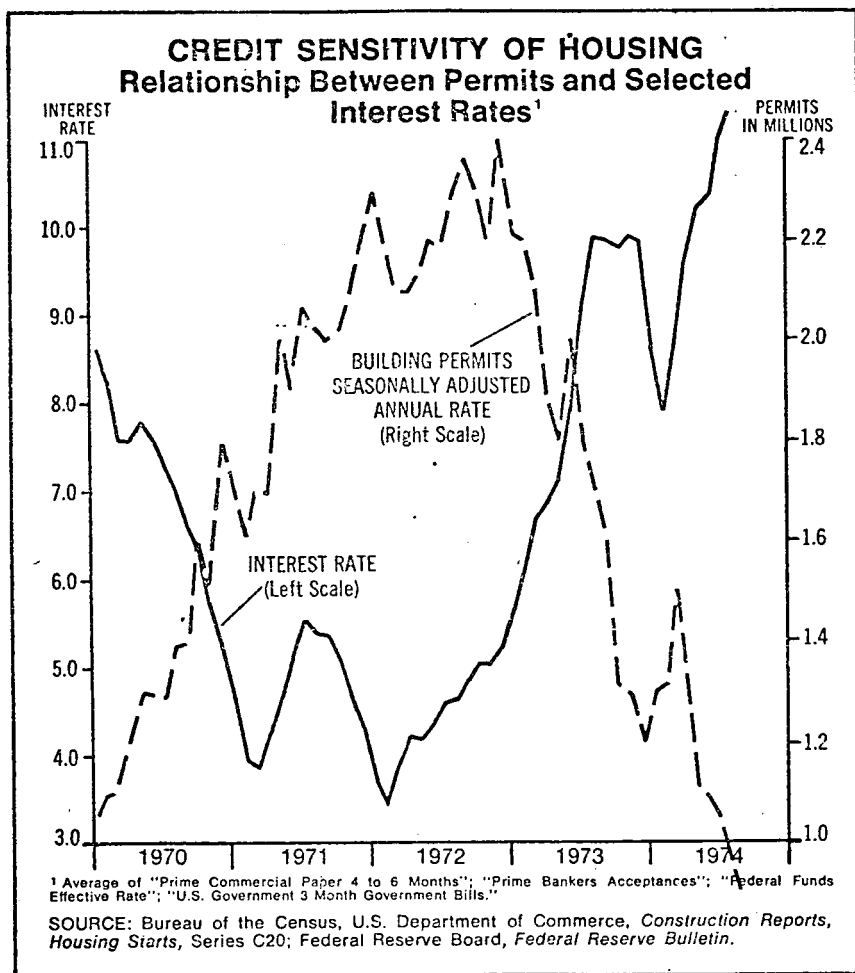
Housing is unique also in terms of its high cost in relation to family income. When a home is purchased, it is likely to be the largest single expenditure ever made by a single household, generally requiring a long-term loan to help pay for the purchase. Rent for an apartment unit also looms importantly in a family's budget, with the leasing arrangement usually extending over periods of one year or more. Whether for a home or an apartment, housing cost is a fairly rigid part of a family's budget, unlike food and clothing which are more flexible items on which expenditures can be reduced.

There is a certain minimum cost below which no housing is available. It is not purchasable "a little at a time" such as food and clothing; and unless one is prepared to change his address or place of abode daily, weekly or even monthly it is not very practical to rent dwellings for short periods of time. The housing commodity is not portable, nor is it as easily transferable from one person to another as are other commodities. This quality has important implications in a mobile society—the housing commodity must not only be available in sufficient quantity, but it must also be available in the right places.

Housing is particularly vulnerable to increases in interest rates. Not only does an upward movement of mortgage interest rates make long-term mortgage loans more costly, but the usually concurrent rise in interest rates on marketable securities serves to attract funds out of thrift institutions—the major source of residential loans. Higher interest rates on commercial bank credits to mortgage companies and other loan originators make it more expensive for them to hold an inventory of unsold mortgage loans. Higher interest rates also increase the cost of construction of new housing units and the cost of holding land awaiting construction.

Thus, in periods of high interest rates the combined effects of disintermediation (withdrawal of funds from thrift institutions for investment in marketable securities), more expensive warehouse credits to mortgage loan originators, and more costly construction loans to homebuilders, coupled with the increased rates on long-term mortgage loans to finance the purchase of homes and apartment houses (newly constructed or existing units), lead to pronounced reductions in sales of new and existing homes and in the construction of new dwelling units.

The credit sensitivity of housing is clearly portrayed by chart 1, which traces the relationship of permits issued to authorize housing construction with a composite of short-term interest rates during the years 1970-1974.¹⁸ This chart clearly demonstrates the inverse relationship between an important housing construction indicator and interest rates. However, the casual relationships between the two are much more complex than are implied by this simple chart.



Building permits for new housing construction decline when home-builders become doubtful of their ability to sell the homes either before or after construction completion. Their doubts are engendered by heavy inventories of unsold newly constructed homes, declining sales and indications of buyer interest in new homes and rising construction costs that make new housing units more expensive to produce. These

¹⁸ This chart was included in the testimony by Dr. Michael Sumichrast, chief economist of the National Association of Home Builders, presented to the Joint Economic Committee on October 2, 1974.

factors, in turn, stem in large part from the increasing non-availability of funds in the mortgage and construction markets and the rise in interest costs.

Table III-5 shows the increasing importance of interest costs in the cost structure of new single family homes. As will be noted, whereas the total construction cost increased by 40 percent between 1969 and 1974, the financing cost jumped by 100 percent. Land costs rose by 59 percent, reflecting both higher interest costs and larger lot size. In effect, the importance of financing costs in relation to total costs increased from 7 to 10 percent, while the share for land costs advanced from 22 to 25 percent. Contrariwise, the proportion of home construction costs accounted for by labor and materials dropped from 54 to 48 percent.

TABLE III-5.—SHARE OF MAJOR COST ITEMS, TYPICAL SINGLE FAMILY DETACHED HOMES

Item	1969		1974		Percent increase
	Percent	Dollars	Percent	Dollars	
Land.....	22	\$5,630	25	\$8,950	59
Financing.....	7	1,790	10	3,580	100
Overhead and profit.....	13	3,330	12	4,300	29
Other.....	4	1,020	5	1,790	75
Hard cost, total.....	54	13,830	48	17,180	24
Labor.....	17	4,430	15	5,370	21
Material.....	37	9,400	33	11,810	26
Total.....	100	25,600	100	35,800	40

Sources: Bureau of the Census, U.S. Department of Commerce, "New 1-Family Homes Sold and for Sale," series C25, May 1974; Michael Sumichrast, "Long-Term Cost Relationship of Land, Onsite Labor, and Materials" (unpublished paper prepared for National Association of Home Builders, April 1973).

In September 1974, the average newly built home financed by a conventional mortgage loan had a purchase price of \$42,400.¹⁹ The average loan closed to finance this home totaled \$31,100, or 73.3 percent of the purchase price, so that the borrower's downpayment came to \$11,300. The loan, repayable over 26 years at approximately 9 percent interest, required a monthly debt service payment of \$258.35. In addition, the borrower had initial fees and charges for the mortgage loan amounting to about \$400, raising his payments at closing to \$11,700 plus settlement costs.

For an existing (previously occupied) home financed by a conventional mortgage loan in September 1974, the average purchase price was \$35,400. The average loan closed in September to finance such an existing home amounted to \$24,600, or 69.5 percent of the purchase price. This loan, amortized over 23 years at about 9½ percent, required a monthly debt service payment of \$213.44. The borrower's closing costs included a downpayment of \$10,800, initial fees and charges relating to the loan of \$268 plus settlement costs.

Assuming that debt service payments should not exceed 20 percent of a family's income, a monthly debt service payment of \$258.35 requires an annual income of \$15,500 and a monthly debt service of \$213.44 requires an annual income of \$12,800. In 1973, the median family income (with 2 or more persons) in the United States was

¹⁹ All statistics in this and the next paragraph are derived from the Federal Home Loan Bank Board releases on mortgage interest rates.

\$12,051 or 8.1 percent above the median income in 1972.²⁰ Assuming a further growth of 8.1 percent in 1974, family median income in 1974 is estimated at \$13,027. This is two percent above the income required to support the average mortgage loan closed in September 1974 to finance the purchase of an existing home and 16 percent below the income required to carry a conventional loan closed in September for a newly constructed home.

Put another way, only about half of the families in the United States could have afforded to finance the purchase of an existing home by borrowing at the interest rate and other terms that were in effect for a conventional mortgage loan closed in September 1974. Slightly over 40 percent of the families could have afforded to finance the purchase of a new home by borrowing via a conventional loan in that month. In effect, the combination of high mortgage interest rates, coupled with the upsurge in the price of homes during the year ending in September 1974, put homeownership beyond the financial reach of most American families.

In an inflation-prone economy it is difficult to single out any cost element to explain the sharp rise in home mortgage debt service payments. Nevertheless, it is interesting to note that between September 1973 and September 1974 the contract interest rates for conventional home mortgage loans increased from about 8 percent to 9 percent, a rise of 12.5 percent. This growth rate was larger than 11.1 percent increase in the sales price of newly built single family homes (which reflect the high interest rates on construction loans).²¹ It was also greater than the 11.5 percent increase in the sales price of previously occupied homes.²² In other words, high interest rates contributed importantly to the escalation of monthly housing expenses.²³

²⁰ Bureau of the Census, *Family Money Income in 1973* (Current Population Reports Series P-60, No. 93, July 1974), p. 1.

²¹ Bureau of the Census *New One Family Homes Sold and For Sale* (C25-74-10).

²² National Association of Realtors *Existing Home Sales Series*.

²³ Over the same period, the average purchase price of previously occupied homes financed by conventional loans rose from \$32,800 to \$35,400, an increase of 8 percent, while the average price of conventionally financed new homes advanced from \$37,200 to \$42,400, a growth of 14 percent.

APPENDIX A. DATA SOURCES AND METHODS OF ESTIMATION—VOLUME OF LENDING ACTIVITY

As explained in the foregoing text, measurement of the supply of credit provided and securities issued during a particular period requires quantification of the volume of credits extended (made or originated) by lenders and securities sold by issuers *during* such period. Information on the amount of loans or securities outstanding at the *beginning* and *end* of a period and the net change of the amounts outstanding do not measure lending activity or security issuances. Instead, they describe the balance sheet liabilities (or net worth) of the borrowers and issuers.

By the same token, aggregate statistics for particular financial institution groups on their loan and investment holdings at the *beginning* and *end* of a quarter or a year are balance sheet measurements of asset holdings. Calculations of the respective net change of holdings figures quantify the change of holdings between two dates, but they do not indicate the volume of loans made or the securities acquired (net of security sales) by the financial institution group *during* the period. Such financial activity can only be measured by statistics on credit and security transactions, which give rise to their asset holdings after allowance is made for loan repayments and security retirements.

Statistics on financial transactions during a period involving borrowers and security issuers permit comparisons with financial transactions during earlier corresponding periods in order to determine whether the amounts obtained have grown or decreased. These financial activity statistics can be converted into constant dollar figures to allow for price changes by dividing the current dollar statistics by the appropriate GNP implicit price deflator. Financial transaction data can be related to corresponding economic activity statistics, i.e., construction loans made can be related to value of construction put in place or State and local government borrowing can be related to State and local government capital outlays. In addition, these gross lending and security issuance statistics facilitate analysis of relative market shares for financial institutions and impact of interest rate changes on new borrowing.

Despite the many advantages of "gross flow" financial statistics, most of the financial aggregates that are published in the *Federal Reserve Bulletin* and other prominent financial journals are presented in terms of loans and securities outstanding or held by particular financial institution groups, as of specified dates. But, as detailed below, a great deal of financial activity data are already available, even though many of them do not appear in the prominent financial journals. Other statistics can be estimated on the basis of limited samples or by inference from other available information. While these estimated figures are by no means as good as the statistics compiled through actual surveys (based on reporting by an entire universe or

by a fully representative sample), they, nevertheless, provide a reasonable approximation of what has taken place in the capital and credit markets during the past five years.

This Appendix describes the procedures employed to develop the statistics presented in Tables I-1—I-13 for the period 1970-1974. For purposes of this presentation, the economy has been divided into eight sectors, seven that are "ultimate users" of funds and a financial sector that serves as intermediaries between the suppliers of funds (savers and investors) and the ultimate users. The seven "ultimate user" sectors are: housing; agriculture, consumers, State and local governments, Federal government; industrial-commercial businesses and foreign entities (foreign governments, businesses, banks and international organizations).

It should be noted that the statistics developed are not all inclusive in that they do not include (a) "churning" financial transactions (purchases and sales of securities and loans among investors and lenders, transactions in the Federal funds market, Federal Reserve Bank loans to banks, and transactions between the U.S. Treasury and the U.S. Investment Accounts), (b) trade credits (between businesses), (c) internal funds generated by businesses (capital consumption allowances and undistributed profits), (d) loans by individuals for real estate, agriculture and consumption, (e) equity investments that are not reflected by the sale of securities, and (f) minor sources and uses of credit.

By and large, these financial transactions do not compete directly with residential mortgage credits for a place in the portfolios of financial institutions that ordinarily provide funds for housing construction and long-term mortgage loans.

1. Mortgage Credits to Housing Sector

The loan origination statistics presented in Tables I-1—I-4 on residential construction and long-term mortgage loans represent the summations of quarterly loan origination data for 11 lender groups published by the Department of Housing and Urban Development. As detailed in Tables A-1—A-4, the principal mortgage lending groups include: commercial banks, mutual savings banks, savings and loan associations, life insurance companies, private non-insured pension funds, mortgage companies, real estate investment trusts, State and local government retirement funds, Federal credit agencies (including Government sponsored agencies), mortgage pools financed by GNMA guaranteed securities plus blocks of loans insured by the Farmers Home Administration, and State plus local government credit agencies.

The statistics reflect the latest revisions of the statistics published by HUD through a monthly release that report on surveys of loan origination activity for each of the 11 lending groups, coupled with the statistics appearing in the HUD publication, *The Supply of Mortgage Credit, 1970-1972*, and unpublished HUD estimates for mortgage company transactions during 1970-1973. These sources also provide the farm mortgage and non-residential mortgage lending activity data discussed below.

TABLE A-1.—QUARTERLY ORIGINATIONS OF LONG-TERM LOANS ON 1-4 FAMILY HOMES

[In millions of dollars]

	Commercial banks	Mutual savings banks	Savings and loan assns.	Life insurance companies	Pension funds	Mortgage companies	REIT's	Retirement funds	Federal credit agencies	GNMA pools	State credit agencies	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1970:												
I	\$1,420	\$355	\$2,476	\$78	\$3	\$2,026	0	\$4	\$232	0	\$30	\$6,624
II	2,215	493	3,493	68	4	2,339	0	4	401	0	31	9,048
III	2,164	639	4,610	87	2	2,113	0	9	333	0	30	9,987
IV	1,913	635	4,235	102	3	2,428	0	8	400	0	49	9,773
1971:												
I	2,014	581	4,142	66	1	2,896	0	9	350	0	46	10,105
II	3,359	906	7,053	79	1	3,084	0	14	477	0	37	15,010
III	3,871	1,072	8,279	96	1	3,141	\$8	24	483	0	43	17,018
IV	3,375	925	7,128	93	7	3,366	2	35	488	0	61	15,480
1972:												
I	3,180	807	6,643	91	6	3,406	10	14	447	0	67	14,671
II	5,136	1,287	9,619	119	0	3,434	6	20	436	0	187	20,244
III	5,473	1,602	10,924	107	6	3,398	2	31	574	0	110	22,227
IV	4,654	1,500	9,553	84	1	3,088	28	17	587	0	100	19,614
1973:												
I	3,834	1,241	9,078	106	1	3,082	4	30	695	0	105	18,176
II	5,190	1,764	12,195	75	2	3,510	3	54	658	0	80	23,531
III	5,408	1,736	10,511	93	2	3,289	6	35	449	0	162	21,691
IV	3,987	1,160	6,657	101	5	3,028	14	11	549	0	228	15,738
1974:												
I	3,260	762	6,785	57	12	3,092	2	18	463	0	150	14,602
II	4,643	1,420	10,336	72	13	3,484	1	6	632	0	128	20,557
III	4,440	1,283	8,340	132	3	3,164	4	13	645	0	100	18,126

192

Sources: Department of HUD, Supply of Mortgage Credit, 1970-72, monthly HUD releases reporting results of mortgage gross flow surveys, mortgage company data estimated by HUD staff.

TABLE A-2.—ORIGINATIONS OF LONG-TERM LOANS ON MULTIFAMILY RESIDENTIAL PROPERTIES

[In millions of dollars]

	Commer- cial banks	Mutual savings banks	Savings and loan associations	Life insurance companies	Pension funds	Mortgage companies	REIT's	Retire- ment funds	Federal credit agencies	GNMA pools	State credit agencies	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1970:												
I	\$92	\$426	\$351	\$497	\$38	\$145	\$15	\$30	\$215	0	\$57	\$1,866
II	87	523	436	447	36	203	20	15	322	0	55	2,144
III	90	184	554	459	11	159	22	22	272	0	88	1,861
IV	93	203	578	835	14	233	35	18	268	0	80	2,357
1971:												
I	105	198	586	366	9	120	25	20	280	0	172	1,881
II	156	432	1,009	398	3	102	34	83	311	0	71	2,599
III	187	419	1,053	420	13	279	55	54	333	0	157	2,970
IV	174	399	1,064	523	10	243	54	36	449	0	67	3,019
1972:												
I	490	310	1,000	299	2	113	67	24	353	0	190	2,848
II	453	492	1,400	318	3	182	58	25	357	0	131	3,419
III	260	550	1,366	422	14	331	93	6	370	0	77	3,489
IV	272	557	1,520	787	4	446	73	18	363	0	55	4,095
1973:												
I	223	505	1,206	309	2	219	70	0	490	0	150	3,209
II	364	523	1,207	591	21	78	162	5	538	0	104	3,858
III	232	466	962	580	4	278	213	6	569	0	125	3,435
IV	185	537	794	753	6	364	151	5	621	0	172	3,588
1974:												
I	188	373	779	432	27	212	110	5	741	0	145	3,012
II	229	434	1,132	488	7	218	77	2	698	0	75	3,360
III	149	350	730	529	8	154	55	1	756	0	88	2,820

Sources: Department of HUD, Supply of Mortgage Credit, 1970-72, monthly HUD releases reporting results of mortgage gross flow surveys, mortgage company data estimated by HUD staff.

TABLE A-3.—QUARTERLY CONSTRUCTION LOANS FOR 1-4 FAMILY HOMES

[In millions of dollars]

	Commer- cial banks	Mutual savings banks	Savings and loan associ- ations	Life in- sur- ance com- pan- ies	Mort- gage com- pan- ies	REIT's	Retire- ment funds	State credit agencies	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1970:									
III.....	\$905	\$83	\$920	\$1	\$600	\$98	0	0	\$2,606
IV.....	1,023	72	1,027	3	528	137	0	0	2,751
1971:									
I.....	988	54	1,010	2	605	123	0	\$1	2,783
II.....	1,342	101	1,632	1	629	158	0	0	3,866
III.....	1,530	113	1,636	1	660	102	0	2	4,043
IV.....	1,654	122	1,540	1	737	162	0	0	4,215
1972:									
I.....	1,682	97	1,414	3	619	204	\$16	3	4,038
II.....	2,115	150	2,055	2	611	171	1	11	5,101
III.....	2,300	153	1,994	2	704	181	1	2	5,335
IV.....	2,130	148	1,757	1	806	211	1	3	5,056
1973:									
I.....	2,052	129	1,909	1	882	208	0	0	5,186
II.....	2,374	165	2,411	13	509	234	1	2	5,702
III.....	2,431	195	1,821	4	719	549	1	0	5,720
IV.....	2,330	169	1,190	3	518	356	1	12	4,579
1974:									
I.....	1,771	121	1,375	0	533	271	0	8	3,546
II.....	2,051	172	2,085	2	554	188	1	8	4,508
III.....	1,750	151	1,460	1	504	193	1	1	4,063

Source: Department of HUD, "Supply of Mortgage Credit, 1970-72," monthly HUD releases reporting results of mortgage gross flow surveys, mortgage company data estimated by HUD staff.

TABLE A-4.—QUARTERLY CONSTRUCTION LOANS FOR MULTIFAMILY RESIDENTIAL

[In millions of dollars]

	Commer- cial banks	Mutual savings banks	Savings and loan associ- ations	Life in- sur- ance com- pan- ies	Mort- gage com- pan- ies	REIT's	Retire- ment funds	Federal credit agencies	State credit agencies	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1970:										
III.....	\$425	\$73	\$580	\$4	\$505	\$256	\$4	\$21	\$9	\$1,878
IV.....	379	85	791	2	309	374	3	13	63	2,018
1971:										
I.....	409	77	589	0	365	318	3	12	33	1,806
II.....	511	118	963	0	546	401	1	7	35	2,582
III.....	614	133	708	2	317	412	2	6	25	2,219
IV.....	651	169	765	48	311	505	2	3	103	2,557
1972:										
I.....	640	113	626	9	498	493	4	3	90	2,476
II.....	679	142	881	15	554	624	3	3	109	3,810
III.....	836	168	768	21	506	600	3	2	164	3,068
IV.....	941	175	791	14	525	863	1	1	57	3,368
1973:										
I.....	780	107	584	6	868	590	2	2	43	2,981
II.....	979	157	577	8	949	1,021	3	0	192	3,888
III.....	1,005	164	450	9	1,141	974	2	1	117	3,867
IV.....	1,071	172	231	14	957	914	2	1	218	3,581
1974:										
I.....	778	99	279	17	648	855	2	0	166	2,843
II.....	777	95	434	18	529	689	1	1	143	2,688
III.....	683	70	214	14	449	555	2	0	220	2,204

Source: Department of HUD, "Supply of Mortgage Credit, 1970-72," monthly HUD releases reporting results of mortgage gross flow surveys, mortgage company data estimated by HUD staff.

2. Credits to Agriculture Sector

Figures on the volume of farm mortgage loans originated since the third quarter of 1970 were obtained from the above-described mortgage credit statistics and are detailed by lender group in Table A-5.

Farm operating loans are made largely by commercial banks, production credit associations (with funds obtained from the Federal Intermediate Credit Banks), Banks for Cooperatives, the Commodity Credit Corporation (storage facilities loans), and the Farmers Home Administration. Statistics on the volume of loans made by the last four were obtained from the Farm Credit Administration, Commodity Credit Corporation and the Farmers Home Administration. The quarterly volume of farm operating loans made by all commercial banks¹ was estimated by calculating quarterly repayment rates (repayments/beginning of quarter holdings) for production credit associations and applying these ratios to commercial bank holdings of "agriculture loans" at the beginning of the corresponding quarter.

¹ Since the statistics on mortgage credits, Treasury and Federal agency borrowing State and local government security sales and corporate security sales relate to the 50 States plus outlying parts of the United States (Puerto Rico, Guam, Virgin Islands, etc.), the commercial bank credit data described in this Appendix have the same geographic coverage, except when reference is made to "large commercial banks." Data for "all commercial banks" are the figures obtained from the semiannual *Assets and Liabilities of Commercial and Mutual Savings Banks* issued by the Federal Deposit Insurance Corporation, which detail the asset holdings of all commercial banks as of June 30 and December 31, respectively. Figures for March 31 and September 30 were estimated by "blowing up" the Federal Reserve Board estimates of comparable figures for banks in the 50 States and Washington, D.C. (presented in its monthly report, *Banking and Monetary Developments*).

TABLE A-5.—QUARTERLY ORIGINATIONS OF LONG-TERM LOANS ON FARM PROPERTIES
[In millions of dollars]

	Commercial banks (1)	Mutual savings banks (2)	Savings and loan associations (3)	Life insurance companies (4)	Pension funds (5)	Mortgage companies (6)	REIT's (7)	Retirement funds (8)	Federal credit agencies (9)	GNMA pools (10)	State credit agencies (11)	Total (12)
1970:												
I.....	\$238	0	\$26	\$67	0	\$1	0	\$2	\$303	0	\$14	\$651
II.....	355	0	10	83	0	1	0	0	351	0	17	817
1971:												
I.....	345	0	14	92	0	2	0	0	440	0	14	907
II.....	481	\$1	32	136	0	2	0	0	503	0	14	1,169
III.....	377	6	21	126	0	4	0	11	479	0	15	1,039
IV.....	405	21	25	124	0	3	0	9	498	0	17	1,101
1972:												
I.....	523	34	37	154	0	2	\$3	2	632	0	21	1,405
II.....	612	3	28	175	0	8	0	0	713	0	16	1,557
III.....	242	2	26	149	0	20	0	1	672	0	11	1,332
IV.....	587	4	31	199	0	27	0	0	750	0	8	1,610
1973:												
I.....	551	0	42	214	0	13	6	0	981	0	11	1,819
II.....	693	1	45	238	0	88	0	3	898	0	16	2,076
III.....	464	3	20	241	0	34	0	0	827	0	16	1,608
IV.....	392	0	13	279	0	25	0	6	862	0	11	1,590
1974:												
I.....	557	0	17	255	0	1	0	0	1,077	0	15	1,923
II.....	584	0	11	269	0	1	1	0	1,223	0	14	2,103
III.....	464	0	10	214	0	0	0	0	1,111	0	18	1,819

Sources: Department of HUD, "Supply of Mortgage Credit, 1970-72," monthly HUD releases reporting results of mortgage gross flow surveys, mortgage company data estimated by HUD staff.

Until recently, commodity loans made by the Commodity Credit Corporation were not regarded as credits in the usual sense. Instead, they were essentially commodity purchases by C.C.C. since the market price for the crop was less than the amount of the loan. Beginning in mid-1972, market prices for C.C.C. supported crops have been above the loan amounts so that the C.C.C. loans are now being repaid. Accordingly, beginning with the third quarter of 1972, C.C.C. loans made are included in Table A-6, which details farm operating loans made by commercial banks and the various Federal credit agencies:

TABLE A-6.—VOLUME OF FARM OPERATING LOANS MADE

[In millions of dollars]

	Commercial banks ¹	Production credit associations	Banks for cooperatives	Farmers home administration	Commodity credit corporation	Total
	(1)	(2)	(3)	(4)	(5)	(6)
1970:						
I.....	\$ 4,820	\$ 2,354	\$ 572	\$ 178	\$ 2	\$ 7,920
II.....	3,790	1,918	484	53	2	6,250
III.....	3,740	1,610	623	33	10	6,020
IV.....	4,790	2,395	797	114	5	8,100
1971:						
I.....	5,090	2,694	752	167	1	8,700
II.....	4,160	2,224	591	89	4	7,070
III.....	4,030	1,845	570	66	26	6,540
IV.....	5,520	2,658	816	94	74	9,160
1972:						
I.....	5,860	3,032	837	187	11	9,930
II.....	4,960	2,486	703	99	10	8,260
III.....	4,530	2,022	803	71	343	7,770
IV.....	6,600	2,900	1,031	142	873	11,550
1973:						
I.....	7,690	3,576	1,686	510	332	13,790
II.....	6,150	2,929	1,397	290	34	10,800
III.....	6,180	2,758	1,562	61	267	10,830
IV.....	8,460	3,776	1,522	103	749	14,610
1974:						
I.....	8,990	4,068	2,275	239	210	15,780
II.....	6,770	3,408	1,401	251	30	11,860
III.....	5,370	2,762	1,952	110	165	10,360

¹ Estimated as explained in text. * Figures rounded to nearest \$10,000,000.

Sources: Data furnished by Commodity Credit Corporation, Farm Credit Administration, and Farmers Home Administration; Federal Deposit Insurance Corporation; Semiannual report "Assets and Liabilities of Commercial and Mutual Savings Banks"; Federal Reserve Board, "Banking and Monetary Developments."

3. Credits to Consumer Sector

Loans made to the consumer sector have been grouped under two headings—installment credits (loans for automobile purchase, other consumer goods, home improvements and personal loans) and non-installment credits (single payment loans, charge accounts (retail outlets and credit cards), service credit and life insurance policy loans). Figures on loans extended for installment credits are published monthly in the *Federal Reserve Bulletin*. Figures on life insurance policy loans made were obtained from the *Tally Sheet* issued monthly by the Institute of Life Insurance and from the Veterans Administration (with respect to the life insurance programs administered by VA).

TABLE A-7.—EXTENSIONS OF NONINSTALLMENT CONSUMER CREDITS

[In millions of dollars]

	Single payment loans ¹	Charge accounts and service credits ¹	Insurance company policy loans	Veterans' Administration policy loans	Total
	(1)	(2)	(3)	(4)	(5)
1970:					
I.....	\$4, 870	\$5, 070	\$1, 157	\$50	\$11, 150
II.....	4, 780	5, 150	1, 096	48	11, 070
III.....	4, 840	5, 210	985	43	11, 080
IV.....	4, 820	6, 150	911	33	11, 910
1971:					
I.....	4, 840	5, 250	843	33	10, 970
II.....	4, 890	5, 890	846	33	11, 660
III.....	5, 060	5, 580	824	33	11, 500
IV.....	5, 170	6, 560	832	29	12, 590
1972:					
I.....	5, 290	5, 130	825	31	11, 280
II.....	5, 420	6, 200	823	32	12, 480
III.....	5, 590	5, 830	813	36	12, 270
IV.....	5, 770	7, 420	813	28	14, 030
1973:					
I.....	6, 130	5, 940	901	32	13, 000
II.....	6, 270	7, 150	1, 008	33	14, 460
III.....	6, 500	6, 200	1, 435	42	14, 180
IV.....	6, 540	8, 110	1, 165	35	15, 850
1974:					
I.....	6, 620	5, 520	1, 034	32	13, 210
II.....	6, 590	7, 570	1, 388	38	15, 590
III.....	6, 660	6, 850	1, 513	46	15, 070

¹ Credit extensions estimated as explained in text.² Rounded to nearest \$10,000,000.

Sources: "Federal Reserve Bulletin," Institute of Life Insurance "Tally Sheet," data furnished by Veterans' Administration.

For single payment loans, it is assumed that they have an average maturity of six months, or a turnover rate of twice a year. For charge accounts and service credits, it is assumed that they resemble installment loans for "other consumer goods paper" with respect to average maturities and quarterly repayment rates (quarterly repayments/beginning of quarter balance). Consequently, the volume of loans made in each quarter for charge accounts, service credits and single payment loans were estimated by calculating quarterly repayments and adding them to the quarterly net change of holdings figures. Table A-7 depicts the quarterly amount of loans extended for each of the five components of non-installment consumer credits.²

4. Credits to State and Local Government Sector

Bonds sold by State and local governments are tabulated monthly by the Securities Industry Association (*Municipal Statistical Bulletin*) and the *Daily Bond Buyer*, with the latter also compiling the monthly volume of short-term note sales by such governments. Since the SIA data on bond sales cover more issues, they have been used in preparing Table I-7.

Included in these municipal security sales are the bonds and notes issued by State and local government housing finance agencies. These agencies are, in reality, financial intermediaries because they channel

³ Some policy loans are used for business purposes, but there are no data to indicate what proportion are so used.

funds from the tax-exempt municipal securities market into the mortgage market, mainly for housing, but also for non-residential and farm purposes. Since the loans by State housing finance agencies are already counted in the housing, commercial and agricultural sectors, there would be double counting if they were also counted in the State and local government sector. Hence, the quarterly volume of bond and note sales by State (and local) housing finance agencies (culled from the *Weekly Bond Buyer* Bond Sales Section) have been subtracted from State and local government bond and note issues and included in the statistics on funds raised by financial intermediaries (see Section 8 below).

5. Credits to Federal Government Sector

The U.S. Treasury debt may be classified under five headings: (a) Short-term marketable securities, (b) long-term marketable securities, (c) non-marketable savings bonds, (d) non-marketable foreign series securities (issued to official institutions of foreign countries), and (e) non-marketable special issues sold to the U.S. investment accounts. Data on the volume of Treasury securities issued for the first four groups during each quarter in 1970-1974 were tabulated from the *Treasury Bulletin* and are detailed in Tables A-8 and A-9. Excluded from the tables are the issuances of non-marketable special Treasury debt to the U.S. investment accounts that are largely offset by almost daily redemptions so that social security, pension and other expenditures can be paid.

TABLE A-8.—LONG-TERM GOVERNMENT DEBT ISSUES

[In millions of dollars]

	Treasury debt			Federal agency debt ²	Total
	Marketable issues	Savings bonds ¹			
	(1)	(2)	(3)	(4)	
1970:					
I.....	\$5,952	\$1,191	\$100		\$7,243
II.....	18,734	1,179	100		20,013
III.....	8,783	1,132			9,915
IV.....	9,053	1,164			10,217
1971:					
I.....	16,068	1,374	253		17,695
II.....	8,968	1,411			10,379
III.....	7,720	1,389	100		9,209
IV.....	15,736	1,303	150		17,189
1972:					
I.....	4,999	1,640	150		6,789
II.....	6,074	1,607	150		7,831
III.....	11,857	1,527	150		13,534
IV.....	7,203	1,462	150		8,815
1973:					
I.....	6,114	1,752	100		7,966
II.....	7,956	1,773	150		9,879
III.....	5,621	1,439	150		7,210
IV.....	4,410	1,306	100		5,816
1974:					
I.....	4,958	1,875	100		6,933
II.....	7,285	1,808	100		9,193
III.....	6,434	1,624			8,058

¹ Savings bond sales—all series.

² Securities issued by Postal Service, Tennessee Valley Authority.

Source: "Treasury Bulletin," Federal agency data.

TABLE A-9.—SHORT-TERM GOVERNMENT MARKETABLE SECURITY ISSUES

[In millions of dollars]

	Regular Treasury bills					Short-term TVA notes	Total
	91 days	182 days	9 months	12 months	Other bills ¹		
	(1)	(2)	(3)	(4)	(5)		
1970:							
I	\$23,415	\$16,129	\$1,502	\$3,404	\$3,511	\$230	\$48,191
II	23,411	16,935	1,501	3,602	-----	240	45,689
III	23,433	17,426	1,502	3,608	4,777	320	51,066
IV	25,861	19,621	1,503	3,603	4,620	360	55,568
1971:							
I	23,532	17,025	1,501	3,601	3,241	440	49,340
II	26,513	19,004	1,500	3,601	5,566	520	56,704
III	32,120	22,399	1,501	3,603	-----	540	60,163
IV	29,926	20,812	1,501	3,601	7,058	470	63,368
1972:							
I	30,517	22,212	1,501	3,601	3,065	400	61,296
II	29,910	23,412	1,502	3,601	-----	510	58,935
III	30,031	23,409	1,001	4,805	-----	390	59,636
IV	30,805	24,318	1,000	5,405	4,522	380	66,430
1973:							
I	31,209	23,822	-----	5,395	-----	330	60,756
II	32,120	22,710	-----	5,403	-----	320	60,553
III	32,510	22,934	-----	5,409	2,017	260	63,130
IV	32,515	23,412	-----	7,210	6,109	260	69,509
1974:							
I	32,538	23,435	-----	5,406	4,038	240	65,657
II	33,221	24,135	-----	5,406	801	490	66,059
III	34,501	24,942	-----	7,214	3,503	50	70,210

¹ Tax anticipation bills, strip bills.

Source: "Treasury Bulletin," Tennessee Valley Authority data.

The vast array of Federal agencies, including "in budget" agencies, "off budget" agencies and Government sponsored agencies have been divided into three groups: (a) Those performing essentially Federal Government functions (U.S. Postal Service and Tennessee Valley Authority), (b) those serving as financial intermediaries that raise funds by selling securities and using the proceeds to make or purchase loans (the various credit agencies discussed in Section 8), and (c) those that facilitate borrowing by private companies by guaranteeing their securities (Maritime Administration guarantees of ship mortgage bonds and Department of HUD guarantees of new community bonds). Debt issues of the first group are included in the Federal Government sector and their quarterly security issues are detailed in Tables A-8 and A-9.

6. Funds Provided to Industrial-Commercial Sector

To facilitate this presentation, the funds provided to the industrial-commercial sector (i.e., non-financial business) have been grouped under three headings: (a) Long-term securities, (b) loans over one year, and (c) short-term credits. With respect to the long-term securities shown in Table A-10, the figures on corporate bonds and stock issues (excluding issues by financial and real estate corporations, which are counted in the financial intermediaries sector) are tabulated monthly by the Securities and Exchange Commission. Data on Federally guaranteed corporate bonds (ship mortgage and new community) were obtained from the respective Federal agency.

TABLE A-10.—LONG-TERM SECURITIES ISSUED FOR INDUSTRIAL-COMMERCIAL SECTOR
[In millions of dollars]

	Federally guaranteed bonds ¹	Other corporate bonds ²	Corporate stock ³	Total
	(1)	(2)	(3)	(4)
1970:				
I.....	\$37	\$5,307	\$1,732	\$7,076
II.....	2	7,471	1,451	8,924
III.....	76	6,051	1,265	7,392
IV.....	104	7,602	2,228	9,934
1971:				
I.....	36	8,248	1,924	10,208
II.....	114	6,543	2,864	9,521
III.....	37	4,958	3,631	8,626
IV.....	144	5,780	2,330	8,254
1972:				
I.....	231	4,364	2,308	6,903
II.....	155	5,755	3,152	9,062
III.....	200	4,291	2,711	7,202
IV.....	164	4,832	2,762	7,758
1973:				
I.....	127	2,202	1,504	3,833
II.....	68	4,786	1,762	6,616
III.....	67	3,965	1,342	5,374
IV.....	166	4,965	2,684	7,815
1974:				
I.....	124	5,409	1,597	7,130
II.....	128	6,817	1,407	8,352
III.....	249	4,779	1,223	6,251

¹ Ship mortgage bonds guaranteed by Maritime Administration plus new community bonds guaranteed by Department of Housing and Urban Development.

² Issued by corporations, excluding finance and real estate corporations.

Sources: Data furnished by Maritime Administration, Department of HUD and tabulations by Securities and Exchange Commission.

TABLE A-11.—LOANS OVER 1 YEAR FOR INDUSTRIAL-COMMERCIAL SECTOR
[In millions of dollars]

	Bank term loans ¹	Commercial mortgage loans ²	Bank loans to individuals ³	Finance company loans ⁴	Federal credit agencies ⁵	Total
	(1)	(2)	(3)	(4)	(5)	(6)
1970:						
I.....	\$10,670	\$2,750	\$1,120	NA	\$307	NA
II.....	21,410	2,870	1,210	NA	420	NA
III.....	21,130	3,210	1,230	\$2,735	429	\$28,740
IV.....	20,150	3,420	1,160	2,513	403	27,650
1971:						
I.....	25,780	3,480	1,010	2,498	396	33,160
II.....	20,320	4,740	1,060	2,660	632	29,440
III.....	17,500	4,640	1,620	2,390	488	26,640
IV.....	19,910	5,460	1,620	3,232	565	30,790
1972:						
I.....	17,900	5,340	1,650	2,930	557	28,380
II.....	16,210	6,370	2,030	3,203	673	28,490
III.....	17,170	5,350	1,840	3,327	1,191	28,870
IV.....	17,350	7,890	1,830	3,702	1,149	31,920
1973:						
I.....	20,250	6,010	2,170	3,648	899	32,980
II.....	19,170	7,140	2,680	4,048	871	33,910
III.....	16,740	7,010	2,480	3,784	805	30,820
IV.....	16,880	7,220	2,410	4,309	748	31,570
1974:						
I.....	19,030	6,190	2,330	4,043	607	32,200
II.....	18,740	6,290	2,910	4,197	824	32,960
III.....	16,950	5,480	2,570	3,908	598	29,510

¹ Commercial and industrial loans by all commercial banks with maturities over 1 yr, excluding loans to foreign corporations.

² Long-term mortgage loans for nonresidential properties by 11 lender groups.

³ Loans to individuals by all commercial banks where proceeds are used for business purposes.

⁴ Finance company loans to business (retail auto, business, industrial, and farm equipment).

⁵ Business loans by Small Business Administration, Economic Development Administration, Rural Electrification Administration, Rural Telephone Bank.

⁶ Figures rounded to nearest \$10,000,000.

Sources: "Federal Reserve Bulletin," Federal Deposit Insurance Corporation "Report of Condition For Commercial Banks;" Department of HUD: monthly releases on mortgage lending, Federal Reserve board releases on loans made by finance companies; tabulations by SBA, EDA, and REA; plus calculations explained in text.

Table A-11 shows the loans maturing in over one year that were made to the commercial and industrial business sector. Figures on loans made are readily available for three of the five categories shown—(a) mortgage loans for commercial properties (data obtained from Department of HUD releases), (b) business loans by finance companies³ (data obtained from Federal Reserve Board releases and tabulations), and (c) business loans made by Federal credit agencies (data furnished by Small Business Administration, Economic Development Administration, Rural Electrification Administration, Rural Telephone Bank). For the other two—commercial bank “term loans” and bank loans to individuals where the proceeds are used for business purposes—loan activity data were estimated as described below.

Table A-12 lists six categories of short-term credits to the industrial-commercial business sector. For two—finance company loans and construction loans for commercial properties—statistics on loan activity were obtained from FRB and HUD releases. For the other four—commercial paper, commercial bank “commercial and industrial loans,” commercial bank loans to individuals and bankers acceptances—the loan activity was estimated as explained below.

TABLE A-12.—SHORT-TERM CREDITS TO INDUSTRIAL-COMMERCIAL SECTOR

[In millions of dollars]

	Commercial paper ¹	Finance company loans ²	Bank commercial and industrial loans ³	Commercial construction loans ⁴	Bank loans to individuals ⁵	Bankers acceptances ⁶	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1970:							
I.....	\$14,490	NA	\$78,460	NA	\$4,120	\$12,490	NA
II.....	16,620	NA	108,050	NA	4,280	24,070	NA
III.....	16,670	\$12,845	111,320	\$1,906	4,370	26,260	\$173,370
IV.....	16,850	12,674	90,260	1,958	4,220	27,360	153,320
1971:							
I.....	17,530	16,271	116,050	1,844	4,460	12,040	168,200
II.....	17,270	16,933	104,410	2,595	4,980	8,720	154,910
III.....	16,000	16,316	86,270	2,725	4,950	21,410	147,670
IV.....	15,760	17,802	91,790	3,211	4,270	21,990	154,820
1972:							
I.....	15,660	17,372	90,770	2,109	5,210	11,060	142,180
II.....	18,680	18,022	99,400	2,001	5,780	9,770	153,650
III.....	19,950	16,241	98,760	3,140	5,860	12,600	156,550
IV.....	19,390	21,510	109,360	3,568	6,040	21,130	181,000
1973:							
I.....	17,370	23,389	135,630	2,811	5,900	17,990	203,090
II.....	16,310	24,693	127,140	3,398	6,050	24,560	202,150
III.....	17,190	21,034	130,290	3,961	6,160	12,050	190,690
IV.....	20,420	24,154	143,930	3,459	5,990	27,130	225,080
1974:							
I.....	26,010	20,688	161,190	2,995	5,700	27,590	244,170
II.....	30,320	22,890	163,270	3,172	6,080	41,230	266,960
III.....	32,600	22,729	142,780	2,898	6,000	50,340	257,350

¹ Commercial paper issued by nonfinancial companies.² Finance company loans to businesses (wholesale auto, accounts receivable, other business credit).³ Commercial and industrial loans by all commercial banks, excluding bankers acceptances and loans to foreign companies.⁴ Construction loans for nonresidential properties.⁵ Loans to individuals by all commercial banks where proceeds are used for business purposes.⁶ Acceptances for account of U.S. borrowers.⁷ Figures rounded to nearest \$10,000,000.

Sources: “Federal Reserve Bulletin,” FDIC “Report of Condition of Banks,” Department of HUD releases reporting on monthly surveys of mortgage lending, Federal Reserve Board releases on finance company loans, plus calculations explained in text.

³ Loans for retail automobiles, business and farm equipment are considered to be loans maturing over one year. All other business loans by finance companies are treated as short-term credits.

(a) BANKERS ACCEPTANCES

Total end of quarter outstanding bankers acceptances (reported in the *Federal Reserve Bulletin*) were distributed between (1) for account of foreign companies (reported in the *Treasury Bulletin*) and (2) for account of domestic companies (the balance). On the basis of weekly statistics issued by the Federal Reserve Bank of New York that show "new loans made during the week" and loans outstanding at the end of the week, quarterly repayment ratios (repayments/beginning of quarter holdings) were calculated from derived repayments (new loans made minus net change of loans outstanding). These ratios were used in "gross flow" calculations for total foreign acceptances⁴ and total domestic acceptances, respectively. For each total the relevant New York ratios were applied to beginning of quarter outstanding amounts to estimate "repayments." These repayments, when added to the net change of outstanding balances, result in estimated "new loans made."

(b) FOREIGN COMMERCIAL AND INDUSTRIAL LOANS

For the purpose of these estimates, it is assumed that all commercial and industrial loans made by U.S. banks to foreign companies are made only by the large commercial banks that report weekly to the Federal Reserve Banks. (They are best equipped to make foreign business loans in terms of financial resources and personnel qualified to judge foreign credit risks.) It is further assumed that the outstanding amounts of such foreign business loans are depicted by the amounts reported in the *Federal Reserve Bulletin* in the Tables "Commercial and Industrial Loans of Large Commercial Banks" and "Term Commercial and Industrial Loans of Large Commercial Banks."⁵ Subtraction of the foreign "term loan" figures from the total foreign loans outstanding results in "short-term" commercial and industrial loans to foreign companies.

Turning again to the weekly statistics compiled by the New York Federal Reserve Bank, quarterly repayment ratios were calculated for short-term (under one year) and "term" (over one year) commercial and industrial loans to foreign companies, respectively. These ratios were then applied to the respective beginning of quarter outstanding balances for short-term and "term" commercial and industrial loans made by all large commercial banks to foreign companies to estimate "loan repayments." The sum of these estimated quarterly repayments and the quarterly net change of outstanding balance gives rise to estimated total "new loans made" by all large commercial banks to foreign companies.

(c) DOMESTIC COMMERCIAL AND INDUSTRIAL LOANS

End of quarter total commercial and industrial loans by all commercial banks (weekly reporting large banks plus all other commercial banks), as reported by the FDIC⁶ were distributed between "term"

⁴ Although bankers acceptances for the account of foreign companies and foreign commercial and industrial loans are attributed to the foreign sector, they are discussed at this point because of their relevance to the estimation for domestic commercial and industrial loans.

⁵ Conceivably, the unclassified commercial and industrial loans by the large banks may include loans to foreign companies.

⁶ Semi-annual report *Assets and Liabilities of Commercial and Mutual Savings Banks*. These outstanding balances may include holdings of commercial paper, but there is no information on how much.

loans and short-term commercial and industrial loans on the basis of the following: For the weekly reporting large banks that classify their C&I loans in this manner, ratios of term loans/total C&I loans were calculated for each quarter for banks in New York City, the Chicago FRB District and for banks in all other Federal Reserve districts. The ratios calculated for banks in all other Federal Reserve districts that classified their C&I loans were assumed to apply to the weekly reporting large banks that did not classify their loans.

For all other commercial banks, it was assumed that their ratios of term loans/total C&I loans were ten percentage points less than the ratios found for the respective quarter for the large banks outside of New York and Chicago.

The foregoing calculations give rise to estimated end of quarter holdings of total "term" commercial and industrial loans and total "short-term" commercial and industrial loans by all commercial banks. Holdings of "term" loans to foreign borrowers, bankers acceptances and "short-term" C&I loans to foreign borrowers were then subtracted from the respective total figures to obtain holdings of commercial and industrial loans to domestic companies, distinguishing between "term" loans and "short-term" C&I loans. Turning once again to the weekly statistics compiled by the New York Federal Reserve Bank, quarterly repayment ratios were calculated for "short-term" and "term" commercial and industrial loans to domestic companies. The resultant repayment estimates, when added to the corresponding net change of holding figures, give rise to estimated new loans made, as shown in Tables A-11 and A-12, respectively.

(d) BANK LOANS TO INDIVIDUALS

About 20 percent⁷ of commercial bank loans to individuals are characterized by the Federal Reserve Board as "being used for business purposes," that is, they are not classified as consumer credits. Some 60 percent to two-thirds of these "implied" business loans are single payment loans, that are assumed to have an average maturity of six months. The other "implied" business loans are for automobile purchase, home improvements and personal loans, each with a repayment period exceeding one year.

To estimate the quarterly volume of new loans made for these business loans, the Federal Reserve figures on commercial bank consumer loans were subtracted from the FDIC figures for commercial bank loans to individuals for the respective end of quarter dates. The balances were then distributed between single payment loans

⁷ At the end of 1973, commercial bank loans to individuals totaled \$100.8 billion, whereas commercial bank consumer credits aggregated \$81.2 billion.

and the other loan categories. Using repayment ratios derived from the consumer credit calculations, quarterly loan repayments were estimated, which when added to the quarterly net change of holdings for the corresponding quarter, result in estimated new loans made (see Tables A-11 and A-12).

(e) COMMERCIAL PAPER

By virtue of a recent recalculation of commercial paper statistics by the New York Federal Reserve Bank,⁸ data are now available on the amount of outstanding commercial paper issued by (1) financial companies and (2) non-financial corporations (industrial and commercial companies). Although there are no available statistics on the volume of new issues, they can be approximated from information on average maturities of commercial paper. According to an officer of a large dealer, in recent years, average commercial paper maturities have ranged between 20 and 35 days, with somewhat longer maturities for industrial paper and slightly shorter maturities for finance company paper.

Based on this advice and figures obtained on average maturities, annual and quarterly turnover rates were calculated for industrial and finance company commercial paper. These turnover rates were applied to beginning of quarter outstanding balances to estimate repayments, which when combined with calculated net changes of outstanding balances, result in estimated "new issues." The figures for industrial commercial paper are shown in Table A-12 and the figures for finance company commercial paper are presented in Table A-16.

7. Funds Provided to Foreign Sector

Bonds and stocks sold by foreign governments and corporations in the U.S. capital market are tabulated by the SEC. Data on credits extended by the Export-Import Bank and the Agency for International Development were obtained from the respective Federal credit agencies. The resultant figures are presented in Table A-13.

Estimates of new commercial bank "term" commercial and industrial loans made to foreign companies and of short-term C&I loans made to foreign borrowers were calculated in the manner described above. Similarly, the method for estimating new bankers acceptances for the account of foreign companies was explained above. The estimated quarterly amounts of such credits are detailed in Tables A-13 and A-14.

⁸ As announced in a release issued by the New York Federal Reserve Bank on September 12, 1974.

TABLE A-13.—LONG-TERM FUNDS PROVIDED TO FOREIGN ENTITIES

[In millions of dollars]

	Securities sold		Ex-Im Bank loans	AID loans	Bank term loans ³	Bank loans to government ⁴	Total
	Foreign bonds ¹	Foreign stocks ²					
	(1)	(2)						(3)	(4)	(5)	(6)	(7)
1970:							
I.....	\$388	\$17	\$278	\$41	\$380	\$40	\$1,140
II.....	83	10	804	360	250	60	1,570
III.....	457	4	247	247	170		1,130
IV.....	365	61	520	82	430	(-10)	1,450
1971:							
I.....	1,336	6	486	227	710	(-50)	2,720
II.....	382	19	586	174	820	(-10)	1,970
III.....	441	5	384	265	330	110	1,540
IV.....	106	29	386	152	600	150	1,420
1972:							
I.....	525	47	719	29	190	70	1,580
II.....	486	46	807	110	520	140	2,110
III.....	60	6	291	299	600	110	1,370
IV.....	593	2	547	65	1,010	120	2,340
1973:							
I.....	485	6	519	300	1,240	180	2,730
II.....	287	4	1,058	204	500	120	2,170
III.....	256	40	664	94	140	(-20)	1,170
IV.....	563	28	892	40	1,240	390	3,130
1974:							
I.....	1,206	101	779	80	1,040	130	3,340
II.....	257	53	1,647	40	810	420	3,230
III.....	196	4	737	171	560	(-280)	1,390

¹ Bonds sold by foreign governments, foreign companies, international organizations in the United States.² Foreign stocks sold in the United States.³ Commercial and industrial loans by large commercial banks to foreign companies.⁴ Loans to foreign governments by large commercial banks.⁵ Figures rounded to nearest \$10,000,000.

Sources: Tabulations by Securities and Exchange Commission, Export-Import Bank, Agency for International Development and "Federal Reserve Bulletin" (statistics of loans by weekly reporting large commercial banks), data calculations explained in text.

TABLE A-14.—SHORT-TERM CREDITS TO FOREIGN BORROWERS¹

[In millions of dollars]

	Bankers acceptances ²	Commercial and industrial loans ³	Loans to foreign banks ⁴	Total
	(1)	(2)	(3)	
	(1)	(2)	(3)		(4)
1970:				
I.....	\$17,670	\$480	\$710	\$18,860
II.....	31,660	730	730	33,120
III.....	33,170	1,000	700	34,870
IV.....	30,570	990	900	32,460
1971:				
I.....	15,490	1,440	540	17,470
II.....	11,130	2,100	1,050	14,280
III.....	22,980	1,920	1,750	26,650
IV.....	22,410	1,980	1,700	26,090
1972:				
I.....	13,170	2,840	1,180	17,190
II.....	11,110	2,090	1,530	14,730
III.....	11,670	1,300	1,460	14,430
IV.....	17,460	2,320	1,780	21,560
1973:				
I.....	16,320	3,220	3,540	23,080
II.....	25,960	2,200	2,580	30,740
III.....	13,040	2,230	2,100	17,370
IV.....	22,890	2,960	2,830	28,680
1974:				
I.....	24,900	4,500	3,280	32,680
II.....	43,520	3,570	3,430	50,520
III.....	66,350	4,690	3,460	74,500

¹ All figures rounded to nearest \$10,000,000.² Acceptances for account of foreign borrowers.³ Short-term credits (under 1 year) to foreign commercial and industrial borrowers by large commercial banks.⁴ Loans to foreign banks by large commercial banks.

Sources: "Treasury Bulletin" (international finance statistics), "Federal Reserve Bulletin," data calculations explained in text.

According to officials of large commercial banks, commercial bank loans to foreign governments in recent years have had maturities of around five years, while loans to foreign commercial banks have had maturities of about six months. Based on this advice, corresponding repayment rates have been assumed, which when applied to the data on loans held by the weekly reporting large commercial banks⁹ result in estimated repayments of such foreign loans. The sum of the estimated quarterly repayments plus the calculated quarterly net change of holdings give rise to estimated quarterly new loans made by the large commercial banks to foreign governments and foreign banks, respectively. These estimates are depicted in Table A-13 and A-14.

8. Funds Provided to Financial Sector

Although financial institutions obtain a large part of their new funds (as distinguished from loan repayments and security retirements) from deposits, insurance and pension fund premiums, interest income and other earnings, they augment their resources by borrowing or issuing securities. Similarly, Federal, State and local government credit agencies sell securities or obtain loans and use the proceeds to make loans to individuals or entities in the other seven economic sectors. The funds raised by these financial intermediaries (financial institutions and agencies that acquire funds for the purpose of making loans and investments) are detailed in Tables A-15, A-16 and A-17.

The long-term securities issued by financial institutions and agencies (shown in Table A-15) include corporate bonds and stocks sold by financial and real estate companies (data tabulated by SEC), bonds sold by State (and local) housing finance agencies (compiled from the *Weekly Bond Buyer*) and the securities issued by the Federal credit agencies, particularly those active in the mortgage and agriculture credit markets (statistics obtained from the respective Federal agencies).

The short-term securities issued by financial institutions and agencies (depicted in Table A-16) include the notes issued by the State housing finance agencies and Federal credit agencies and commercial paper issued by finance companies. The commercial paper issuances were estimated by converting average maturities into turnover or repayment rates and applying them to the quarterly outstanding balances compiled by the New York Federal Reserve Bank.

Table A-17 details the loans made by financial institutions to other financial institutions. They include (a) Federal Home Loan Bank advances to savings and loan associations, (b) loans made by all commercial banks to personal and sales finance companies, (c) loans made by all commercial banks to other non-bank financial institutions (mortgage companies, REIT's, savings and loan associations, Federal agencies), and (d) loans made by all commercial banks to domestic commercial banks (loans to all commercial banks less loans to foreign banks by large commercial banks).

⁹ It is assumed that smaller commercial banks do not make loans to foreign governments and foreign banks.

TABLE A-15.—LONG-TERM SECURITIES ISSUED BY FINANCIAL INSTITUTIONS AND AGENCIES
[In millions of dollars]

	Corporate bonds ¹	Corporate stock ¹	Municipal bonds ²	Federal agency securities ³	Total
	(1)	(2)	(3)	(4)	(5)
1970:					
I.....	\$532	\$405	\$80	\$4,722	\$5,739
II.....	807	376	-----	3,545	4,728
III.....	849	394	104	4,273	5,620
IV.....	1,672	462	203	4,764	7,101
1971:					
I.....	1,637	382	290	3,998	6,307
II.....	1,760	520	40	4,379	6,699
III.....	1,410	449	194	6,191	8,244
IV.....	1,794	862	379	4,790	7,825
1972:					
I.....	2,549	543	102	4,260	7,454
II.....	1,662	639	139	4,077	6,516
III.....	1,770	427	303	4,156	6,656
IV.....	2,472	496	109	3,635	6,712
1973:					
I.....	2,147	2,367	127	3,840	8,481
II.....	1,431	640	265	7,883	10,219
III.....	649	393	236	6,472	7,750
IV.....	2,119	430	778	7,087	10,414
1974:					
I.....	2,058	172	140	5,818	8,188
II.....	816	130	232	7,497	8,675
III.....	1,258	156	583	9,286	11,283

¹ Issued by "financial and real estate" companies.

² Issued by State and local government housing finance agencies (excludes public housing, urban renewal and other nonhousing credit purposes).

³ Issued by Federal National Mortgage Association, Federal Home Loan Banks, Federal Home Loan Mortgage Corporation, Federal Land Banks, Federal Intermediate Credit Banks, Banks for Cooperatives, Export-Import Bank, Federal Housing Administration and Small Business Administration, plus notes insured by Farmers Home Administration and mortgage-backed securities guaranteed by Government National Mortgage Association.

Sources: "Federal Reserve Bulletin", "Weekly Bond Buyer," bond sales section, data obtained from respective Federal credit agencies.

TABLE A-16.—SHORT-TERM SECURITIES ISSUED BY FINANCIAL INSTITUTIONS AND AGENCIES
[In millions of dollars]

	Municipal notes ¹	Commercial paper ²	Federal agency securities ³	Total
	(1)	(2)	(3)	(4)
1970:				
I.....	\$94	\$84,400	\$6,678	\$91,200
II.....	158	91,400	5,703	97,300
III.....	206	87,500	5,912	93,600
IV.....	135	76,700	4,479	92,100
1971:				
I.....	131	70,500	3,014	73,600
II.....	335	66,700	4,557	71,600
III.....	117	65,800	3,743	69,700
IV.....	252	67,100	3,523	70,900
1972:				
I.....	53	71,100	2,897	74,100
II.....	254	72,700	3,618	76,600
III.....	153	74,000	3,079	77,200
IV.....	300	76,600	4,485	81,400
1973:				
I.....	38	86,500	3,486	90,000
II.....	321	94,900	4,314	99,500
III.....	349	106,900	6,034	113,300
IV.....	466	112,500	4,609	117,600
1974:				
I.....	439	115,500	4,349	120,300
II.....	323	150,800	6,082	157,200
III.....	288	138,500	9,098	147,900

¹ Issued by State and local government housing finance agencies (excludes public housing, urban renewal and other non-housing credit purposes).

² Issued by financial companies.

³ Issued by Banks for Cooperatives, Federal Intermediate Credit Banks, Federal Land Banks, Federal Home Loan Banks, Federal National Mortgage Association, Student Loan Marketing Association, Federal Financing Bank.

⁴ Rounded to nearest \$100,000,000.

Sources: "Weekly Bond Buyer" Bond sales section, New York Federal Reserve Bank special tabulation, data furnished by respective Federal credit agencies, plus calculations described in text.

TABLE A-17.—LOANS TO FINANCIAL INSTITUTIONS

[In millions of dollars]

	FHLB advances to Savings and loans ¹	Commercial bank loans to—			Total
		Commercial banks ²	Finance companies ³	Other financial institutions ⁴	
1970:					
I.....	\$1,275	\$1,050	\$6,110	\$830	\$9,270
II.....	934	1,080	7,280	2,570	11,860
III.....	627	1,010	8,330	1,440	11,410
IV.....	482	1,070	8,690	2,140	12,380
1971:					
I.....	479	960	8,040	1,750	11,230
II.....	524	1,140	8,700	2,930	13,290
III.....	1,000	1,590	7,210	2,120	11,920
IV.....	1,162	1,600	7,760	3,020	13,540
1972:					
I.....	500	1,860	7,360	2,590	12,310
II.....	1,000	2,190	7,690	3,530	14,410
III.....	1,342	2,310	7,160	4,040	14,850
IV.....	1,976	3,490	8,920	5,510	19,900
1973:					
I.....	1,579	4,810	8,770	4,900	20,060
II.....	3,260	4,820	9,630	6,310	24,020
III.....	3,860	4,430	8,590	5,390	22,270
IV.....	3,019	5,120	10,300	6,070	24,510
1974:					
I.....	3,468	5,630	9,410	4,900	23,410
II.....	5,839	6,860	10,770	7,760	31,230
III.....	5,794	6,410	10,590	6,400	29,190

¹ Federal Home Loan Bank advances to savings and loan associations.² Loans made by all commercial banks to domestic commercial banks.³ Loans made by all commercial banks to personal and sales finance companies.⁴ Loans made by all commercial banks to other nonbank financial institutions (mortgage companies, REIT's, savings and loan associations, etc.).⁵ Rounded to nearest \$10,000,000.

Sources: Federal Home Loan Bank Board data, Federal Deposit Insurance Corporation "Assets and Liabilities of Commercial and Mutual Savings Banks," "Federal Reserve Bulletin," plus calculations explained in text.

Data for the FHLB advances were obtained from the Federal Home Loan Bank Board (in the form of advances made gross of renewals). Loan activity figures for the three categories of commercial bank credit were estimated as follows: Based on a canvass of a number of large commercial banks that make such loans, average maturities were assumed for each type loan (90 days each for loans to commercial banks and to personal and sales finance companies, 12 months for loans to "other non-bank financial institutions"). These were converted into annual turnover rates, which give rise to quarterly repayment rates. Applying these rates to beginning of quarter holdings result in estimated quarterly loan repayments, which when added to quarterly net change of holdings, equal loans made in the quarter.

APPENDIX B. MEASUREMENT OF INCREMENTAL INTEREST COSTS

This Appendix seeks to quantify the additional interest costs that were paid or contracted for during the 12 months of October 1973 through September 1974 as a result of the record levels of interest rates that prevailed during this period. It endeavors to ascertain for each identifiable group of borrowers the amount of "incremental interest costs" they were required to pay and the extent to which these incremental costs were, in reality, shifted to the U.S. Treasury because of deductions permitted under the Federal income tax. Finally, this Appendix tries to determine which investor or lender groups received the additional interest income and the extent to which they paid Federal income taxes on this interest.

The Appendix consists of five sections: 1. Measurement Specifications, 2. Interest Rate Differentials, 3. Incremental Interest Costs, 4. Who Paid Incremental Interest Costs, and 5. Who Received Incremental Interest Income.

1. Measurement Specifications

The record high levels of interest rates prevailing during the year October 1973 through September 1974 affected only those borrowers who obtained new loans, renewed or refinanced outstanding loans,¹ issued new securities or refunded outstanding securities during this period. Debtors who had borrowed before October 1973 at fixed interest rates paid in 1973-1974 only the amounts they had contracted to pay, even though market interest rates had since risen. On the other hand, those who did borrow (including renewals, refinancings and refundings) in the 12 months ending with September 1974 were required to pay interest costs reflecting the higher interest rates that prevailed throughout this period. Had they elected to borrow at some earlier date when interest rates were lower, presumably their interest costs would have been correspondingly lower.

The resultant higher interest cost is termed "incremental interest cost," which is measured by multiplying the amounts borrowed during October 1973-September 1974 by an interest rate differential. This differential is the difference between the effective interest rates (yields) prevailing in the 12 months ending September 1974 and the rates prevailing in a corresponding period some time earlier. For the purpose of this analysis, the earlier period chosen is the immediately preceding year, that is, the 12 months extending from October 1972 through September 1973. This period appears to be most directly comparable to the period under review.²

¹ Loans with variable interest rates (where there are no renewals or refinancings) would also be affected, but there are no statistics on the amount of such loans that are outstanding.

² In terms of recency. A similar analysis could be made by comparing earlier periods when interest rates were still lower.

The incremental interest costs are for a 12 month period. For long-term credits the costs are, in effect, the first year's interest costs. For short-term credits, an adjustment factor was employed to achieve annual interest costs that are comparable to the annual interest costs for loans repayable over periods longer than one year. For example, if the average maturity of a loan category was three months, the interest cost figure was divided by four.

Since foreign governments, businesses and banks domiciled or operating abroad are not subject to the Federal income tax, their borrowings in the United States have been excluded from the analysis. Consequently, the analysis deals with the interest costs borne by U.S. borrowers. For these borrowers, quarterly data were compiled on the amounts they borrowed and on the interest rates they paid as described below.

2. Interest Rate Differentials

For the purpose of this analysis, it is assumed that the sums borrowed during each of the quarters in the 12 months ending with September 1974 were at the effective interest rates prevailing in the respective 1973-1974 quarter for the particular loan or debt security category. These effective interest rates are presented in the lower half of Tables B-1a through B-1k. The upper half of each table shows the effective quarterly interest rates for the loan category for the corresponding quarter in the preceding year.

To the extent that statistics are available, separate interest rate data are shown for each distinctive component within a loan category, especially where there are significant interest rate differences for individual components. In those instances where there were no interest rate data available for a particular component, they were approximated by reference to an interest rate series for similarly constituted loans.

TABLE B-1a.—COMPARISON OF INTEREST RATES ON MORTGAGE AND CONSTRUCTION LOANS

[Percent]

	Home mortgage loans	Multifamily mortgage loans	Home construction loans	Multifamily construction loans
1972: IV.....	7.70	8.45	7.75	7.75
1973:				
I.....	7.70	8.51	8.00	8.00
II.....	7.75	8.65	9.25	9.25
III.....	8.04	9.31	10.75	10.75
IV.....	8.56	9.52	11.75	11.75
1974:				
I.....	8.66	9.34	11.00	11.00
II.....	8.70	9.60	12.50	12.50
III.....	9.16	10.28	14.00	14.00

DATA SOURCES

1. Mortgage loans: (a) 1 to 4 family homes: effective rate on conventional loans for purchase of previously occupied homes—Federal Home Loan Bank Board series; (b) multifamily residential: going rate on multifamily conventional loans—Federal Home Loan Mortgage Corporation series.

2. Construction loans: (a) 1 to 4 family homes: prevailing prime commercial loan rate plus 2 points (prime loan rate is model rate during quarter based on table in "Federal Reserve Bulletin"; (b) multifamily residential: same.

TABLE B-1b.—COMPARISON OF INTEREST RATES ON FARM MORTGAGE LOANS

[Percent]

	Land banks	Farmers Home Administration	Commercial banks	Life insurance
1972: IV.....	7.50	5.00	7.79	8.26
1973:				
I.....	7.50	5.00	7.81	8.39
II.....	7.50	5.00	7.88	8.29
III.....	7.50	5.00	8.16	8.49
IV.....	7.75	5.00	8.43	8.70
1974:				
I.....	8.00	5.00	8.44	9.01
II.....	8.00	5.00	8.53	9.22
III.....	8.50	5.00	8.82	9.35

DATA SOURCES

- (a) Federal land banks: Data furnished by Farm Credit Administration.
 (b) Farmers Home Administration: Data furnished by agency.
 (c) Commercial banks: Averages of farm ownership loan rates, compiled by Chicago and Minneapolis Federal Reserve Banks.
 (d) Life insurance companies: Rates on farm mortgage loans closed, compiled by Economic Research Service, Department of Agriculture.

TABLE B-1c.—COMPARISON OF INTEREST RATES ON FARM OPERATING LOANS

[Percent]

	Commercial banks	Production credit association	Co-op banks	Farmers Home Administration	Commodity Credit Corporation
1972: IV.....	7.76	7.00	6.25	5.88	3.25
1973:					
I.....	7.81	7.50	6.00	5.88	3.25
II.....	7.95	8.00	7.00	6.75	5.50
III.....	8.41	8.50	8.50	8.75	5.50
IV.....	8.76	9.00	9.50	8.75	5.50
1974:					
I.....	8.75	9.50	9.25	8.75	5.50
II.....	8.99	9.25	9.00	8.75	7.25
III.....	9.41	9.75	9.50	8.75	7.25

DATA SOURCES

- (a) Commercial banks: Averages of farm operating loan rate compiled by Chicago and Minneapolis Federal Reserve Banks plus Federal Reserve Board G.10 series.
 (b) Production credit associations: Data furnished by Farm Credit Administration.
 (c) Banks for cooperatives: Data furnished by Farm Credit Administration.
 (d) Farmers Home Administration: Data furnished by Federal agency.
 (e) Commodity Credit Corporation: Data furnished by Federal agency.

TABLE B-1d.—COMPARISON OF INTEREST RATES ON CONSUMER INSTALLMENT LOANS

[Percent]

	Auto loans	Other consumer goods	Personal loans	Home improvement loans
1972: IV.....	11.04	15.68	17.81	11.29
1973:				
I.....	11.00	15.73	17.92	11.28
II.....	11.06	15.70	17.56	11.36
III.....	11.28	15.72	17.46	11.58
IV.....	11.53	15.79	17.60	11.76
1974:				
I.....	11.49	15.81	17.58	11.79
II.....	11.60	15.90	17.54	11.74
III.....	12.05	16.27	17.76	12.49

DATA SOURCES

- Installment loans: All statistics appear in "Federal Reserve Bulletin."
 (a) Automobiles: Weighted average of rates charged by commercial banks (new cars) and finance companies (new and used cars).
 (b) Other consumer: Weighted average of rates charged by commercial banks and finance companies.
 (c) Personal loans: Weighted average of rates charged by commercial banks and finance companies.
 (d) Home improvement: Weighted average of rates charged by commercial banks and finance companies on mobile home loans.

TABLE B-1e.—COMPARISON OF INTEREST RATES ON NONINSTALLMENT CONSUMER-LOANS

[Percent]

	Charge accounts	Single payment	Life insurance policy	VA policy loans
1972: IV.....	17.23	17.81	5.25	5
1973:				
I.....	17.16	17.98	5.25	5
II.....	17.22	17.56	5.25	5
III.....	17.22	17.46	5.25	5
IV.....	17.23	17.60	5.25	5
1974:				
I.....	17.24	17.58	5.25	5
II.....	17.24	17.54	5.25	5
III.....	17.19	17.76	5.25	5

DATA SOURCES

- (a) Single payment: Weighted averages calculated for personal loans as statistics appear in "Federal Reserve Bulletin."
 (b) Charge accounts: Rates charged by commercial banks for credit card plans as statistics appear in "Federal Reserve Bulletin."
 (c) Life insurance company policy: Data furnished by American Life Insurance Association.
 (d) VA policy loans: Data furnished by Veterans' Administration.

TABLE B-1f.—COMPARISON OF INTEREST RATES ON TREASURY BILLS

[Percent]

	81-day bills	182-day bills	12-month bills	Other Treasury bills		
				Under 3 months	3 to 6 months	273 days
1972: IV.....	4.84	5.15	5.30		4.91	
1973:						
I.....	5.67	5.94	6.22			
II.....	6.59	6.78	6.89			
III.....	8.41	8.46	8.28			
IV.....	7.49	7.53	7.24	8.67	7.46	
1974:						
I.....	7.61	7.46	6.73	7.88		
II.....	8.28	8.30	8.21	9.66	8.28	
III.....	8.32	8.52	8.58			9.77

DATA SOURCES

Short-term marketable: All data appear in "Treasury Bulletin". (a) 91-, 182-day bills: average of weekly average rate of bids accepted; (b) 12-month bills: average of monthly "equivalent average rate"; (c) other short-term: average of rates reported, where differential not ascertainable, used nearest 91, 182, or 365 day rate differential.

TABLE B-1g.—COMPARISON OF INTEREST RATES ON OTHER TREASURY AND AGENCY SECURITIES

[Percent]

	Treasury securities			Federal agency securities	
	Marketable bonds	Savings bonds	Foreign series	Short-term notes	Long-term bonds
1972: IV.....	6.04	5.50	4.90	5.15	6.27
1973:					
I.....	6.63	5.50	5.65	6.06	6.46
II.....	6.94	5.50	6.63	6.93	6.93
III.....	7.88	5.50	8.37	9.01	7.85
IV.....	7.17	5.67	8.00	7.86	7.09
1974:					
I.....	7.13	6.00	7.45	7.74	7.09
II.....	8.42	6.00	8.20	9.04	8.07
III.....	8.69	6.00	9.07	9.71	8.96

DATA SOURCES

1. Treasury securities: All data appear in "Treasury Bulletin": (a) marketable bonds: averages of rates of bonds sold in quarter; (b) savings bonds: data furnished by Savings Bond Division, Treasury Department; (c) Foreign series: modal averages of securities sold in quarter; (d) investment accounts: Treasury computed annual interest rate on non-marketable Government account series.

2. Federal Agency securities: (a) agency notes: 1-year yields, Salomon Brothers series; (b) agency bonds: average of 1-, 5-, and 10-year yields, Salomon Brothers series.

TABLE B-1h.—COMPARISON OF INTEREST RATES ON MUNICIPAL SECURITIES AND CORPORATE BONDS
[Percent]

	Municipal securities		Corporate bonds	Guaranteed bonds
	Bonds	Notes		
1972: IV.....	5.10	2.92	7.54	7.25
1973:				
I.....	5.21	3.25	7.68	7.50
II.....	5.16	3.93	7.71	7.60
III.....	5.30	4.48	8.17	8.25
IV.....	5.13	4.16	8.00	8.00
1974:				
I.....	5.39	3.93	8.38	8.00
II.....	5.91	5.35	9.34	8.80
III.....	6.75	5.96	10.31	9.75

DATA SOURCES

1. State and local government securities: (a) bonds: new Aa rated municipal bonds, tabulated by Securities Industry Association and published in "Treasury Bulletin"; (b) notes: prime 1-year notes, Salomon Brothers series.
2. Long-term corporate bonds: (a) corporate bonds: new Aa rated corporate bonds, Treasury Department series; (b) guaranteed bonds: data furnished by Maritime Administration.

TABLE B-1i.—COMPARISON OF INTEREST RATES ON LONG-TERM BUSINESS LOANS
[Percent]

	Finance company loans	Bank "term loans"	Commercial mortgage loans	Loans to individuals	REA loans	SBA loans
1972: IV.....	8.75	6.67	8.48	7.15	2.29	5.50
1973:						
I.....	9.00	7.11	8.44	7.48	2.30	5.50
II.....	10.25	7.66	8.52	7.79	2.41	5.50
III.....	11.75	9.85	8.60	9.65	3.24	5.50
IV.....	12.75	10.68	8.54	10.45	3.38	5.50
1974:						
I.....	12.00	10.16	8.60	10.42	3.83	5.50
II.....	13.50	11.41	8.81	10.82	3.86	5.50
III.....	15.00	11.74	9.06	11.85	3.96	6.13

DATA SOURCES

- (a) Bank term loans: Rates on long-term business loans, all sizes ("Federal Reserve Bulletin"), where two report dates occur in same quarter, averages calculated.
- (b) Commercial mortgages: Rates on commitments for loans for income property mortgages (American Life Insurance Association weighted average series); data lagged 9 months.
- (c) Loans to individuals: Rates on business loans, \$10,000 to \$99,000 size ("Federal Reserve Bulletin").
- (d) Finance company loans: Prevailing prime loan rate plus 3 points.
- (e) Rural Electrification Administration: Data furnished by Federal agency.
- (f) Small Business Administration: Data furnished by Federal agency.

TABLE B-1j.—COMPARISON OF INTEREST RATES ON SHORT-TERM BUSINESS LOANS

[Percent]

	Commercial paper	Finance companies	Bank loans to commerce and industry	Loans to individuals	Bankers acceptances	Commercial construction
1972: IV.....	5.30	8.75	6.33	7.10	5.07	7.75
1973:						
I.....	6.26	9.00	6.52	7.29	6.19	8.00
II.....	7.47	10.25	7.35	7.85	7.37	9.25
III.....	9.91	11.75	9.24	9.25	9.85	10.75
IV.....	9.08	12.75	10.08	10.14	8.91	11.75
1974:						
I.....	8.40	12.00	9.91	10.09	8.33	11.00
II.....	10.55	13.50	11.15	11.06	10.36	12.50
III.....	11.61	15.00	12.40	12.34	11.67	14.00

DATA SOURCES

All data in "Federal Reserve Bulletin."

(a) Commercial paper: Average of yields on 90 to 119 days and 4 to 6 months prime commercial paper.

(b) Finance company loans: Prime loan rate plus 3 points.

(c) Bank commercial and industrial loans: Rates on short-term business loans, all sizes.

(d) Loans to individuals: Rates on business loans, \$10,000 to \$99,000.

(e) Bankers acceptances: Prime bankers acceptances, 90 days.

(f) Commercial construction loans: Prime loan rate plus 2 points.

TABLE B-1k.—COMPARISON OF INTEREST RATES ON CREDITS TO FINANCIAL INSTITUTIONS

[Percent]

	Commercial paper	FHLB advances	Loans to finance companies and banks	Loans to financial institutions	Federal funds	Federal Reserve loans
1972: IV.....	5.20	6.04	6.75	7.75	5.14	4.50
1973:						
I.....	6.07	6.33	7.00	8.00	6.54	5.25
II.....	7.17	6.98	8.25	9.25	7.82	6.00
III.....	9.07	8.14	9.75	10.75	10.56	7.50
IV.....	8.38	8.50	10.75	11.75	10.00	7.50
1974:						
I.....	7.96	8.07	10.00	11.00	9.32	7.50
II.....	9.41	8.73	11.50	12.50	11.25	8.00
III.....	10.06	9.42	13.00	14.00	12.09	8.00

DATA SOURCES

(a) Commercial paper: Weighted average of yields on 90 to 119 days prime commercial paper and finance company paper directly placed ("Federal Reserve Bulletin").

(b) FHLB advances: Average rate on advances made by Federal Home Loan Banks to savings and loan associations ("Federal Home Loan Bank Journal").

(c) Loans to finance company and banks: Prime commercial rate plus 1 point.

(d) Loans to other financial institutions: Prime commercial rate plus 2 points.

(e) Federal funds: Average of Federal funds rates ("Federal Reserve Bulletin").

(f) Federal Reserve loans: Federal Reserve rediscount rate ("Federal Reserve Bulletin").

Sources of the interest rate statistics are cited in the notes to each table. If a particular interest rate series was compiled monthly or weekly, simple averages were calculated. For those loan categories where there are two or more interest rate series, either simple or weighted averages were calculated, depending upon the nature of the data. Where the mass of interest rate data made such averaging unwieldy (Treasury foreign series securities), "modal averages"³ were calculated.

3. Incremental Interest Costs

As noted above, the incremental interest costs were calculated by multiplying the quarterly amounts borrowed in each of the four quarters in the year October 1973–September 1974 by the interest rate differential for the respective quarter for each loan category or significant component. The results of these calculations are summarized in Table B-2.

Column one of Table B-2 shows the annual sums⁴ borrowed by each sector in terms of loan categories and relevant components (with significantly different interest rates) during the 12 months ending September 1974. Column two depicts the range of interest rate differentials for each loan category or component derived from the effective interest rates presented in Tables B-1a to B-1k. Column three lists the assumed maturity for the loans or securities (12 months for long-term and fewer months for short-term) and column four shows the annual incremental interest costs (the sum of the four quarterly figures calculated).

Owing to their importance, the incremental interest costs for Federal Funds and Federal Reserve Bank loans have been included in Table B-2, even though the related borrowings are not covered in Appendix A. Also included are stock market credits and land loans which are discussed in Chapter II.

4. Who Paid Incremental Interest Costs?

Table B-3 summarizes the incremental interest cost figures detailed in Table B-2 and then shows the extent to which these incremental costs are likely to be shifted to the U.S. Treasury by virtue of the deductibility of interest costs under the Federal income tax. The amounts shown as "paid by Treasury" for each economic sector and loan category were calculated by multiplying the total incremental interest cost paid by each economic sector or component by its "marginal tax rate." The marginal tax rate percentages were obtained from Treasury Department staff.

For corporate borrowers, although the maximum tax rate is 48 percent, a 46 percent figure is used to allow for the fact that a number of small companies do not have taxable income in excess of \$25,000, the minimum amount to which the maximum corporate tax rate applies. The lower percentages for homeowners, farmers and consumers reflect information developed from income tax returns by the Treasury Department.

³ Average of interest rates for largest amounts borrowed in the quarter.

⁴ Sum of quarterly data presented in Appendix A.

TABLE B-2.—INCREMENTAL INTEREST COST DURING YEAR ENDING SEPTEMBER 1974 RESULTING FROM HIGHER LEVEL OF INTEREST RATES IN THAT YEAR

Economic sector (loan category)	Amount borrowed (billions)	Interest rate differential (percent)	Assumed maturity (months)	Incremental interest cost (millions)
	(1)	(2)	(3)	(4)
A. Housing sector:				
1. Mortgage Loans:				
1 to 4 family	\$69.0	0.86-1.12	12	\$673
Multifamily	11.8	.83-1.07	12	114
Subtotal	80.8			787
2. Construction loans:				
1 to 4 family	16.7	3.00-4.00	6	283
Multifamily	11.3	3.00-4.00	9	290
Subtotal	28.0			573
B. Agriculture sector:				
1. Farm ownership loans:				
Federal land banks	3.7	.25-.50	12	22
Farmers Home Administration .....	.6	0		
Commercial banks ¹	2.1	.63-.66	12	10
Life insurance Company	1.0	.44-.86	12	5
Subtotal	7.4			37
2. Farm operations loans:				
Commercial banks	29.6	.94-1.04	4	97
Production credit association	14.0	1.25-2.00	4	77
Banks for co-ops	7.2	1.00-3.25	4	68
Farmers Home Administration .....	.7	2.00-2.87	6	5
Commodity Credit Corporation	1.2	1.75-2.25	6	13
Subtotal	52.7			260
C. Consumer sector:				
1. Installment loans: ²				
Automobile	44.3	.49-.77	10	211
Mobile homes	4.9	.38-.91	12	12
Other consumer	65.6	.08-.55	12	156
Home improvement	4.9	.38-.91	12	27
Personal loans	47.9	.30	6	19
Subtotal	168.5			425
2. Noninstallment loans:				
Single payment	26.4	.30	6	10
Charge accounts	28.1	0	2	
Life insurance policy	5.1	0	12	
VA policy loans .....	.2	0	12	
Subtotal	59.8			10
D. Federal Government Sector:				
1. Short-term marketable:				
91 day bills	132.8	1.69-2.65	3	514
182 day bills	95.9	.06-2.38	6	647
12 month bills	25.2	.30-1.94	12	263
Under 3 months	6.6	1.69-2.65	1½-2	16
4 to 10 months	7.8	.23-2.55	4-10	72
Agency notes	1.0	.70-2.71	6	11
Subtotal	269.3			1,523
2. Long-term:				
Marketable bonds	23.1	.50-1.48	12	235
Savings bonds	6.6	.17-.50	12	28
Agency bonds .....	.3	.63-1.06	12	3
Subtotal	30.0			266
3. Other:				
Foreign series	41.0	.70-3.10	3	205
Investment accounts	412.2	.54	12	606
Subtotal	153.2			811

See footnotes at end of table.

47-392-75—7

TABLE B-2.—INCREMENTAL INTEREST COST DURING YEAR ENDING SEPTEMBER 1974 RESULTING FROM HIGHER LEVEL OF INTEREST RATES IN THAT YEAR—Continued

Economic sector (loan category)	Amount borrowed (billions)	Interest rate differential (percent)	Assumed maturity (months)	Incremental interest cost (millions)
	(1)	(2)	(3)	(4)
E. State and local government sector:				
1. Bonds.....	21.8	.03-1.45	12	114
2. Notes.....	26.9	.51-1.11	9	250
Subtotal.....	48.7			364
F. Industrial-commercial sector:				
1. Long-term securities:				
Corporate bonds.....	22.0	.46-2.14	12	274
Guaranteed bonds.....	.7	.50-1.50	12	7
Subtotal.....	22.7			281
2. Long-term loans:				
Bank term loans.....	71.6	1.89-4.01	12	2,280
Commercial mortgages.....	25.2	.06-.46	12	57
Loans to individuals.....	10.2	2.20-3.30	12	291
Finance company loans.....	16.5	3.00-4.00	12	556
REA loans.....	1.0	0	12	
SBA loans.....	1.8	.63	12	2
Subtotal.....	126.3			3,186
3. Short-term credits:				
Commercial paper.....	109.4	1.70-3.78	(⁶)	238
Finance company loans.....	90.5	3.00-4.00	(⁷)	338
Bank C. & I. loans.....	611.2	3.16-3.80	2	3,612
Commercial construction.....	12.5	3.00-4.00	9	319
Loans to individuals.....	23.8	2.80-3.21	(⁹)	144
Bankers acceptances.....	146.3	1.82-3.84	(⁹)	125
Subtotal.....	993.7			4,776
G. Financial sector:				
1. Federal agencies:				
Bonds.....	29.7	.82-1.14	12	283
Notes.....	24.1	.70-2.71	6	194
Subtotal.....	53.8			477
2. State housing finance agencies:				
Bonds.....	1.7	.03-1.45	12	10
Notes.....	1.5	.68-1.48	9	12
Subtotal.....	3.2			22
3. Private lenders—Special tax rates:				
Advances to S. & L.'s.....	18.1	1.28-2.46	9	234
Loans to other financial institutions.....	25.1	3.00-4.00	12	850
Subtotal.....	43.2			1,084
4. Banks and finance companies:				
Corporate bonds.....	6.3	.46-2.14	12	64
Commercial paper.....	517.3	.97-3.14	(¹⁰)	688
Loans to banks.....	24.0	3.00-4.00	3	200
Loans to finance companies.....	41.1	3.00-4.00	3	346
Federal funds.....	429.7	1.53-4.86	(¹¹)	1,034
Federal Reserve loans.....	42.6	.50-3.00	(¹²)	30
Subtotal.....	621.0			2,362
H. Other credits:				
Stock market credits.....	48.2	3.00-4.00	(¹²)	277
Land loans.....	6.7	3.00-4.00	6	109

¹ Includes other lenders.² Not seasonally adjusted.³ 3d quarter.⁴ Holdings on September 1973 plus 1/4 of net change to September 1974.⁵ Treasury computed.⁶ 35 days.⁷ 45 days.⁸ 70 days.⁹ 12 days.¹⁰ 23 days.¹¹ 1 to 3 days.¹² 1 to 15 days.

As will be noted, the full amount of the incremental interest cost for the Federal Government is shown as "paid by Treasury" which is, in fact, what happens. Alternatively, the full amount of the incremental interest cost for State and local governments is shown as "paid by borrower." However, as explained previously in the text, the Treasury forgoes tax revenues from such interest income because of the tax exemption accorded to the interest on State and local government obligations.

In the case of the Federally sponsored agencies, it is noted that each of them is exempt from the Federal income tax except the Federal National Mortgage Association. Accordingly, Table B-3 delineates the incremental interest cost attributed to FNMA and shows the portion shifted to the U.S. Treasury by virtue of its deductions of interest cost from its taxable income.

TABLE B-3.—WHO PAID INCREMENTAL INTEREST COST ON CREDITS EXTENDED TO U.S. BORROWERS DURING YEAR ENDING SEPTEMBER 1974

[In millions of dollars]

Economic sector (loan category)	Incremental interest cost			Borrowers' marginal tax rate (percent)
	Total paid	Paid by borrower	Paid by Treasury	
	(1)	(2)	(3)	(4)
A. Housing sector:				
1. Mortgage loans:				
1-4 family.....	\$673	\$511	\$162	24
Multifamily.....	114	62	52	46
2. Construction loans.....	573	310	263	46
B. Agriculture sector:				
1. Farm ownership loans.....	37	30	7	20
2. Farm operation loans.....	260	208	52	20
C. Consumer sector:				
1. Installment loans.....	425	357	68	16
2. Non-installment loans.....	10	8	2	22
D. Federal Government sector:				
1. Short-term marketable.....	1,523		1,523	0
2. Long-term securities.....	266		266	0
3. Other securities.....	811		811	0
E. State and local government sector:				
1. Bonds.....	114	114	50	0
2. Notes.....	250	250	110	0
F. Industrial-commercial sector:				
1. Long-term securities.....	281	152	129	46
2. Long-term loans.....	3,186	1,720	1,466	46
3. Short-term credits.....	4,776	2,579	2,197	46
G. Financial sector:				
1. Federal agencies.....	477	421	56	
FNMA.....	117	61	56	48
Other agencies.....	360	360	0	0
2. State housing finance agencies.....	22	22	10	0
3. Advances to S&Ls.....	234	164	70	46
4. Credits to banks and finance companies.....	2,362	1,275	1,087	46
5. Loans to "other financial institutions".....	850	654	196	46
H. Other credits:				
1. Stock market.....	277	150	127	46
2. Land loans.....	109	59	50	46
I. Total.....	17,630	9,046	8,584	

5. Who Received Incremental Interest Income?

The incremental interest payments are, of course, interest income to the recipients of these payments. Such interest income was distributed among significant lender and investor groups on the basis of their market shares of the loans made or acquired and the securities issued

during the year October 1973 through September 1974. The methods of obtaining such market shares are described below.

(a) NONFARM MORTGAGE AND CONSTRUCTION LOANS

Table B-4a details the acquisitions of construction loans and long-term mortgage loans for 1-4 family homes, multifamily residential and non-residential properties during the 12 months ending September 1974 by the 11 lender groups covered by the HUD coordinated surveys of mortgage lending. Loan acquisitions (loan originations plus loan purchases less loan sales) provide a better measure of market shares of interest income than loan origination data since they relate to lenders and investors who acquire loans for investment purposes. In contrast, loan origination data include loans made in anticipation of sales to investors (by mortgage companies, some commercial banks and savings and loan associations).

(b) AGRICULTURAL LOANS

Data on acquisitions of farm mortgage loans are detailed in Table A-5. Originations of farm operating loans are shown in Table A-6.

TABLE B-4a.—ACQUISITIONS¹ OF NONFARM MORTGAGE AND CONSTRUCTION LOANS, OCTOBER 1973 TO SEPTEMBER 1974

[Dollar amounts in millions]

	Loans acquired			Market shares (percent)		
	1- to 4- family homes	Multi- family residence	Nonresi- dential	1- to 4- family homes	Multi- family residence	Nonresi- dential
	(1)	(2)	(3)	(4)	(5)	(6)
Construction loans:						
Federal agencies.....		\$2	\$16			.1
REIT's.....	\$1,008	3,013	2,378	4.6	26.6	19.4
Retirement funds.....	3	7	12		.1	.1
Commercial banks.....	6,152	3,309	6,654	27.8	29.2	54.2
Savings banks.....	613	436	314	2.8	3.9	2.6
Savings and loan associations.....	6,110	1,158	1,214	27.6	10.2	9.9
Life insurance companies.....	6	63	202		.6	1.6
Mortgage companies.....	8,219	2,583	1,480	37.1	22.8	12.1
State agencies.....	29	747		.1	6.6	
Total.....	22,140	11,318	12,270	100.0	100.0	100.0
Mortgage loans:						
Federal agencies.....	7,480	3,154	524	10.9	24.3	1.9
Pension funds.....	50	44	91	.1	.3	.3
REIT's.....	36	402	908		3.1	3.3
Retirement funds.....	247	60	265	.4	.4	1.0
GNMA pools.....	5,024	208		7.3	1.6	
State agencies.....	751	489	174	1.1	3.8	.7
Commercial banks.....	15,295	633	12,022	22.3	4.9	43.9
Savings banks.....	5,532	1,914	2,152	8.0	14.7	7.9
Savings and loan associations.....	34,096	3,672	4,223	49.6	28.3	15.4
Life insurance companies.....	558	2,365	6,932	.8	18.2	25.3
Mortgage companies.....	-360	53	91	-.5	.4	.3
Total.....	68,710	12,994	27,396	100.0	100.0	100.0

¹ Loan originations plus loan purchases less loan sales.

Source: Derived from monthly releases issued by Department of Housing and Urban Development reporting on the surveys of mortgage lending.

(c) CONSUMER CREDITS

Table B-4b depicts a breakdown of consumer installment loans made during the year ending September 1974 by the four lender groups covered by the Federal Reserve surveys. The Federal Reserve figures for "miscellaneous lenders" were further broken down into (a) credit unions, and (b) other thrift institutions on the basis of information obtained from the National Credit Union Administration regarding the distribution of credit union loans by purpose. Mobile home loans were distinguished from other consumer goods loans because they bear different interest rates. Extensions of single payment loans (Table A-7) were distributed between commercial banks and finance companies on the basis of ratios derived from their respective holdings, as reported in the *Federal Reserve Bulletin*.

(d) MARKETABLE SECURITIES

Although there are no statistics presently available on acquisitions of marketable securities by identifiable financial institution groups, they can be reasonably approximated by "gross flow" calculations such as those appearing in Tables B-4c through B-4g. Fundamental to these estimates are (1) data on securities held by identifiable financial institution groups, (2) statistics on aggregate securities acquired (which are equal to the amounts issued), and (3) an assumption that the rate of repayments for individual groups is similar to the rate of repayments for all investors.

The reality of this assumption improves if short-term credits can be distinguished from long-term credits (original maturities over one year) for each kind of security.⁵ Accordingly, the data on Tables B-4c through B-4g delineate short-term debt from long-term debt for Treasury, municipal, corporate and Federal agency securities, respectively. For Treasury marketable and Federal agency securities, the delineations are based on ratios computed from the monthly Treasury sample surveys of ownership of such securities. These ratios were applied to the respective investor group's total holdings of these securities, as of September 30, 1973 and September 30, 1974. Data on total holdings of such securities were obtained from various Federal agency and private trade association reports detailing loan holdings by individual financial institution groups.⁶

Commercial bank holdings of short-term municipal securities were estimated on the basis of FDIC and Federal Reserve statistics and nonfinancial corporation holdings of short-term municipal securities were estimated from Treasury Department (statistics of income), SEC and FTC data. Holdings of commercial paper and bankers acceptances were derived from Federal Reserve "flow of funds" data.

⁵ Such a delineation reduces the degree of differences in maturity distributions of lender group portfolios, which bear materially on rates of payment.

⁶ Listed in Table B-4h.

TABLE B-4b.—CONSUMER INSTALLMENT LOANS EXTENDED, OCTOBER 1973 TO SEPTEMBER 1974

[In millions of dollars]

	Other consumer goods			Home improvements	Personal loans
	Auto loans	Mobile homes	Other		
Commercial banks	\$27,119	\$2,500	\$22,505	\$2,624	\$16,046
Finance companies	8,983	1,753	12,094	773	19,551
Credit unions	7,801	479	1,117	958	7,895
Other thrift institutions ¹		282	0	573	4,374
Retail outlets	360	0	29,817		
Total	44,263	5,014	65,533	4,932	47,866
Market shares (percent):					
Commercial banks	61.3	49.9	34.3	53.2	33.5
Finance companies	20.3	35.0	18.5	15.7	40.8
Credit unions	17.6	9.5	1.7	19.5	16.5
Other thrift institutions ¹		5.6		11.6	9.2
Retail outlets .....	.8		45.5		
Total	100.0	100.0	100.0	100.0	100.0

¹ Savings and loan associations and mutual savings banks.

Sources: Federal Reserve Board: G-20 series (for finance companies), unpublished data for other lenders; figures for credit unions estimated on basis of ratios obtained from National Credit Union Administration; figures for "other thrift institutions" calculated as residuals.

TABLE B-4c.—ANNUAL GROSS FLOW OF TREASURY MARKETABLE SECURITIES, OCTOBER 1973 TO SEPTEMBER 1974

[Dollar amounts in millions]

	Securities held					Market share (percent)
	September 1973	September 1974	Net change	Repayments	Securities acquired	
	(1)	(2)	(3)	(4)	(5)	
Treasury bills:						
Federal Reserve banks	\$34,100	\$38,219	\$4,119	\$88,660	\$92,779	34.4
Investment accounts	1,008	514	-494	2,621	2,127	.8
Private pension funds	1,419	1,148	-271	3,689	3,418	1.3
State and local government	13,186	12,172	-1,014	34,284	33,270	12.3
Public retirement funds	472	270	-202	1,227	1,025	.4
Foreign official institutions	21,464	26,551	5,087	55,806	60,893	22.6
Commercial banks	6,670	4,240	-2,430	17,342	14,912	5.5
Other institutions ¹	567	517	-50	1,474	1,424	.6
Non-financial corp.	4,000	3,800	-200	10,400	10,200	3.8
Other investors	16,876	22,167	5,291	43,961	49,252	18.3
Total	99,762	109,598	9,836	259,464	269,300	100.0
Notes and bonds:						
Federal Reserve banks	42,065	42,816	751	5,889	6,640	28.7
Investment accounts	19,872	20,930	1,058	2,782	3,840	16.6
Private pension funds	1,321	1,332	11	185	196	.9
State and local governments	13,028	15,428	2,400	1,824	4,224	18.3
Commercial banks	48,910	46,850	-2,060	6,847	4,787	20.7
Savings & loan associations	5,683	6,581	898	796	1,634	7.3
Life insurance companies	3,491	3,178	-313	489	176	.8
Non-financial corporations	3,800	3,500	-300	532	232	1.0
Other investors	24,424	22,395	-2,029	3,340	1,311	5.7
Total	162,594	163,010	416	22,684	23,100	100.0

¹ Mutual savings banks, savings and loan associations, and life insurance companies.

NOTE. Rate of repayments: Treasury bills, 2.60; notes and bonds, 0.14.

TABLE B-4d.—ANNUAL GROSS FLOW OF MUNICIPAL SECURITIES,¹ OCTOBER 1973 TO SEPTEMBER 1974

[Dollar amounts in millions]

	Securities held					Market share (percent)
	September 1973	September 1974	Net change	Repay- ments	Securities acquired ¹	
	(1)	(2)					(3)	(4)	(5)	(6)
Short-term notes:						
Commercial banks.....	\$10,065	\$9,720	—\$345	\$15,442	\$15,097	53.2
Nonfinancial Corporations.....	4,809	4,006	—803	7,379	6,576	28.8
Individuals and others.....	1,959	5,668	3,709	3,007	6,716	18.0
Total.....	16,833	19,394	2,561	25,828	28,389	100.0
Long-term bonds:						
Commercial banks.....	81,937	88,940	7,003	3,589	10,592	45.0
Fire and casualty insurance.....	29,398	30,904	1,506	1,282	2,788	11.9
Personal trusts.....	15,934	16,934	1,000	698	1,698	7.2
Life insurance Company.....	3,439	3,556	157	151	308	1.3
Federal agencies.....	5,670	5,960	290	248	538	2.3
State and local governments.....	2,100	2,260	160	92	252	1.2
Other investors.....	37,794	43,488	5,694	1,656	7,350	31.2
Total.....	176,272	192,082	15,810	7,716	23,526	100.00

¹ Securities issued by State and local governments and State housing finance agencies.

NOTE: Rate of repayment.—Short-term notes, 1.534 percent; municipal bonds, 4.38.

TABLE B-4e.—ANNUAL GROSS FLOW OF CORPORATE AND FOREIGN BONDS, OCTOBER 1973 TO SEPTEMBER 1974

[Dollar amounts in millions]

	Securities held					Market share (percent)
	September 1973	September 1974	Net change	Repay- ments	Securities acquired	
	(1)	(2)					(3)	(4)	(5)	(6)
Tax free investors:						
Pension funds.....	\$29,830	\$33,520	\$3,690	\$1,159	\$4,849	15.6
Retirement funds.....	43,902	50,318	6,416	1,704	8,120	26.1
State and local government.....	5,450	7,188	7,738	211	1,949	6.3
Foreign investors.....	8,313	9,294	981	323	1,304	4.2
Subtotal.....	87,495	100,320	12,825	3,397	16,222	52.2
Taxable investors:						
Commercial banks.....	5,476	6,667	1,191	212	1,403	4.5
Savings banks.....	13,522	13,927	405	525	930	3.0
Life insurance company.....	95,021	100,677	5,656	3,690	9,346	30.0
Fire and casualty insurance.....	7,670	7,800	130	298	428	1.4
Personal trusts.....	14,586	16,000	1,414	566	1,980	6.4
Other investors.....	36,924	36,281	(—643)	1,434	791	2.5
Subtotal.....	173,199	181,352	8,153	6,725	14,878	47.8
Total.....	260,694	281,672	20,978	10,122	31,100	100.0

¹ Bonds sold by nonfinancial corporations, finance and real estate corporations, foreign governments and corporations, and federally guaranteed bonds.

Note: Rate of repayment: 0.0388.

TABLE B-4f.—ANNUAL GROSS FLOW OF FEDERAL AGENCY SECURITIES, OCTOBER 1973 TO SEPTEMBER 1974

[Dollar amounts in millions]

	Securities held					
	September 1973	September 1974	Net change	Repay-ments	Securities acquired	Market share (percent)
	(1)	(2)					(3)	(4)	(5)	(6)
Short-term securities:²						
Federal Reserve banks ³	\$195	\$152	-\$43	\$412	\$369	1.5
State and local governments.....	3,623	3,265	-358	7,662	7,304	29.0
Private pension funds.....	198	415	217	419	636	2.5
Other tax free investments ⁴	510	500	-10	1,079	1,069	4.2
Commercial banks.....	3,250	2,536	-714	6,874	6,160	24.5
Savings banks.....	325	233	-92	687	595	2.4
Savings and loan associations.....	680	469	-211	1,438	1,227	4.9
Other investors.....	1,833	5,775	3,942	3,876	7,818	31.0
Total.....	10,614	13,345	2,731	22,447	25,178	100.0
Long-term securities:						
Federal Reserve banks.....	1,540	3,859	2,319	234	2,553	8.5
Investment accounts.....	1,964	1,996	32	298	330	1.1
State and local governments.....	7,097	8,918	1,821	1,077	2,898	9.7
Private pension funds.....	2,345	2,685	340	356	696	2.3
Other tax free investments.....	7,761	7,567	-194	1,177	983	3.3
Commercial banks.....	23,610	29,564	5,954	3,582	9,536	31.8
Savings banks.....	4,129	3,930	-199	626	427	1.4
Savings and loan associations.....	9,325	11,714	2,389	1,415	3,804	12.7
Life insurance companies.....	865	1,030	165	131	296	1.0
Other investors.....	12,224	18,835	6,611	1,854	8,465	28.2
Total.....	70,860	90,098	19,238	10,750	29,988	100.0

¹ Federal agency, federally sponsored agency, GNMA guaranteed securities, FHDA insured notes.² Short-term securities (original maturity up to 1 year) issued by TVA, FICB, FNMA, Banks for Coop.³ All short-term securities held by U.S. Investment Accounts and Federal Reserve banks attributed to Federal Reserve banks.⁴ Includes credit unions, State, and local government retirement funds and foreign official institutions.

Note. Repayment rate: Short-term, 2.115 percent; long-term, 0.1517.

TABLE B-4g.—ANNUAL GROSS FLOW OF OPEN MARKET PAPER,¹ OCTOBER 1973 TO SEPTEMBER 1974

[In millions of dollars]

Investor groups	Securities held					
	September 1973	September 1974	Net change	Repay-ments	Securities acquired	Market share (percent)
	(1)	(2)					(3)	(4)	(5)	(6)
Federal Reserve banks....	\$57	\$490	\$433	\$988	\$1,421	0.2
Commercial banks.....	5,989	6,540	551	103,759	104,310	11.2
Savings banks.....	2,498	2,370	-128	43,278	43,150	4.6
Life insurance companies.....	3,928	4,548	620	68,053	68,673	7.4
Nonfinancial corporation.....	31,809	38,001	6,192	551,091	557,283	59.9
Other investors.....	8,281	20,587	12,306	143,468	155,774	16.7
Total.....	52,562	72,536	19,974	910,636	930,611	100.0

¹ Commercial paper issued by finance companies and non-financial corporations plus bankers acceptances.

Note. Rate of repayment, 17.325.

TABLE B-4h.—DATA SOURCES FOR HOLDINGS OF MARKETABLE SECURITIES

1. *Federal Reserve Banks.*—*Federal Reserve Bulletin* (consolidated statement of condition of all Federal Reserve Banks).
2. *U.S. Investment Accounts.*—*Treasury Bulletin* (Tables FD-1, FD-3).
3. *Private Pension Funds.*—Securities and Exchange Commission quarterly survey of assets held by private, non-insured pension funds; distribution of U.S. Government securities between Treasury and Federal agency debt based on Treasury survey of ownership of Treasury and Federal agency securities.
4. *Public Retirement Funds.*—Census Bureau annual survey of State and local government retirement funds, Census Bureau quarterly survey of 100 largest retirement funds; holdings of Federal agency securities estimated by "blowing up" figures from Treasury survey of ownership.
5. *State and Local Governments.*—Census Bureau *Governmental Finances* (asset holdings of all State and local governments less asset holdings of State and local government retirement funds); quarterly holdings of Treasury and Federal agency holdings of Treasury and Federal agency securities estimated by "blowing up" figures from Treasury survey of ownership; quarterly holdings of municipal securities estimated by extrapolation; quarterly holdings of corporate bonds estimated by subtracting estimated holdings of Federal agency securities and mortgage loans from estimated holdings of "total other securities."
6. *Foreign Official Institutions.*—Treasury data.
7. *Foreign Investors.*—Holdings of corporate bonds estimated from annual data appearing in *Survey of Current Business*.
8. *Credit Unions.*—Data obtained from National Credit Union Administration on year-end holdings of Treasury and Federal agency securities and quarterly holdings of Treasury securities; quarterly holdings of Federal agency securities estimated by interpolation and extrapolation.
9. *Commercial Banks.*—Federal Deposit Insurance Corporation *Assets and Liabilities—Commercial and Mutual Savings Banks* for June 30 and December 31 figures, March 31 and September 30 figures estimated by interpolations and extrapolations based on Federal Reserve Board estimates and weekly survey data; holdings of corporate bonds derived from Federal Reserve Board flow of funds data.
10. *Mutual Savings Banks.*—Monthly release issued by National Association of Mutual Savings Banks.
11. *Savings and Loan Associations.*—Holdings of Treasury and Federal agency securities estimated by "blowing up" figures obtained from Treasury survey of ownership and adding estimated holdings of GNMA guaranteed securities.
12. *Life Insurance Companies.*—Monthly *Tally* release issued by Institute of Life Insurance.
13. *Non-Financial Corporations.*—For Treasury and Federal agency securities: Securities and Exchange Commission "current assets and liabilities of non-financial corporations," blown up by benchmark from "Statistics of Income"; distribution between Treasury and Federal agency securities based on Treasury survey of ownership; for municipal securities: SEC—Federal Trade Commission survey of large manufacturers, blown up by benchmark from "Statistics of Income."
14. *Fire and Casualty Insurance Companies.*—Quarterly survey by Securities and Exchange Commission, September 1974 estimated by extrapolation.
15. *Personal Trusts and Estates.*—Federal Deposit Insurance Corporation *Trust Assets of Commercial Banks*, September data estimated by interpolations, extrapolation.
16. *Total Securities Outstanding*—
 - (a) Treasury Marketable Securities: *Treasury Bulletin*.
 - (b) Municipal Securities:
Dept. of HUD staff estimates based on Census Bureau fiscal year data extrapolated on basis of bond and note sales.
 - (c) Corporate and Foreign Bonds: Federal Reserve Board "flow of funds" data.
 - (d) Federal Agency Securities: *Treasury Bulletin* plus figures obtained from GNMA on mortgage backed securities.
 - (e) Open Market Paper: Federal Reserve Board "flow of funds" data.

Statistics on aggregate "gross flows" for Treasury, Federal agency, municipal and corporate long-term and short-term securities are detailed in Appendix A and also in Chapter I. Figures on total amounts of securities outstanding were obtained from the *Treasury Bulletin* (for Treasury and Federal agency debt), *Governmental Finances* (for State and local government debt) and the Federal Reserve "flow of funds" (for corporate debt).⁷

(e) OTHER LOANS

The volumes of loans extended by commercial banks, finance companies and various Federal credit agencies to the industrial-commercial and financial intermediary sectors are shown in Appendix A.

The foregoing market share proportions were applied to the respective categories of interest income to calculate the amounts of the incremental interest income attributed to each financial institution group. These amounts are detailed in Tables B-5a through B-5h that cover each loan category.

As will be noted, to facilitate the analysis presented in the main text, each table groups the financial institutions shown under two headings, "Tax Free Lenders" (lenders that are exempt from payment of Federal income taxes) and "Taxable Lenders" (those required to pay taxes). The residual groups that are shown in most tables are classified as "Taxable Lenders," even though they may include tax free organizations such as college endowment funds, nonprofit foundations, labor unions, welfare funds, religious and other eleemosynary institutions.

TABLE B-5a.—DISTRIBUTION OF INCREMENTAL INTEREST INCOME FROM NONFARM MORTGAGE AND CONSTRUCTION LOANS

[In millions of dollars]

Lender group	Mortgage loans			Construction loans		
	1 to 4 family	Multi-family	Non residential	1 to 4 family	Multi-family	Non residential
A. Tax free lenders:						
Federal agencies	\$55	\$21	\$1			
GNMA pools	49	2				
State agencies	7	4			\$19	
REIT's	4	4	2	\$13	78	\$62
Other ¹			1			
Subtotal	115	31	4	13	97	62
B. Taxable lenders:						
Commercial banks	150	6	25	79	85	173
Savings banks	53	17	5	8	11	8
Savings and loan associations	333	32	9	78	29	32
Life insurance companies	4	21	14		2	5
Mortgage companies				105	66	39
FNMA ²	18	7				
Subtotal	558	83	53	270	193	257
C. Total	673	114	57	283	290	319

¹ Noninsured pension funds, State, and local retirement funds.

² Assumed at 25 percent of incremental interest income attributable to all Federal credit agencies.

⁷ Appropriate interpolations and extrapolations were employed to estimate figures, as of September 30, 1973 and September 30, 1974, when they were not available from the foregoing sources.

TABLE B-5b.—DISTRIBUTION OF INCREMENTAL INTEREST INCOME FROM AGRICULTURE LOANS

[In millions of dollars]

	Farm mortgage loans	Farm operating loans
A. Tax free lenders:		
Federal credit agencies ¹	\$22	\$86
Production credit associations.....		77
Subtotal.....	22	163
B. Taxable lenders:		
Commercial banks.....	10	97
Life insurance companies.....	5	
Subtotal.....	15	97
C. Total.....	37	260

¹ Includes FHDA blocks of loans, State credit agencies, State and local retirement funds, Federal Land Banks, Farmers Home Administration, and Commodity Credit Corporation.

TABLE B-5c.—DISTRIBUTION OF INCREMENTAL INTEREST INCOME FROM CONSUMER CREDITS

[In millions of dollars]

Single payment loans	Auto loans	Mobile home loans	Other consumer loans	Home improvement loans	Personal loans
I. Installment loans:					
A. Tax free lenders:					
Credit unions.....	\$37	\$1	\$3	\$5	\$3
B. Taxable lenders:					
Commercial banks.....	129	6	53	15	6
Finance companies.....	43	4	29	4	8
Other thrift institutions ¹		1		3	2
Retail outlets.....	2		71		
Total.....	211	12	156	27	19
II. Noninstallment loans:					
Commercial banks.....	9				
Finance companies.....	1				
Total.....	10				

¹ Savings and loan associations and mutual savings banks.

TABLE B-5d.—DISTRIBUTION OF INCREMENTAL INTEREST INCOME FROM U.S. TREASURY SECURITIES

[In millions of dollars]

	Marketable securities		Non-marketable debt
	Treasury bills	Notes and bonds	
A. Tax-free investors:			
U.S. investment accounts.....	\$12	\$39	\$662
Foreign official institutions.....	342		130
State and local government.....	186	43	
Other ¹	26	2	19
Subtotal.....	566	84	811
B. Federal Reserve banks.....	520	67	
C. Taxable investors:			
Commercial banks.....	83	49	
Savings and loan associations.....	5	17	
Life insurance companies.....	2	2	
Nonfinancial corporations.....	58	2	
Individuals (savings bonds).....			28
Other investors.....	277	14	
Subtotal.....	426	84	28
D. Total.....	\$ 1,512	\$ 235	839

¹ Private, noninsured pension funds and State and local government retirement funds.

² Interest on TVA and Postal Service debt included in Federal agency debt shown in table B-5g.

TABLE B-5e.—DISTRIBUTION OF INCREMENTAL INTEREST INCOME FROM STATE AND LOCAL GOVERNMENT SECURITIES¹

[In millions of dollars]

	Municipal bonds	Municipal notes
A. Taxfree investors:		
Federal credit agencies	\$3	-----
State and local government	1	-----
Savings and loan retirement funds	-----	-----
Subtotal	4	-----
B. Taxable investors:		
Commercial banks	56	\$139
Life insurance companies	1	-----
Fire and casualty insurance	14	-----
Personal trust funds	9	-----
Nonfinancial corporations	-----	75
Individuals and others	40	48
Subtotal	120	262
C. Total	124	262

¹ Issued by State and local governments and State housing finance agencies.

TABLE B-5f.—DISTRIBUTION OF INCREMENTAL INTEREST INCOME FROM CREDITS TO INDUSTRIAL-COMMERCIAL SECTOR

[In millions of dollars]

	Bond issues ¹	Long-term loans	Short-term loans	Short-term securities ²
Tax free lenders:				
Federal credit agencies	-----	\$2	-----	-----
Private pension funds	\$54	-----	-----	-----
State and local government	22	-----	-----	-----
Public retirement funds	90	-----	-----	-----
Foreign investors	14	-----	-----	-----
Subtotal	180	2	-----	-----
Federal reserve banks				
Taxable lenders:				
Commercial banks	16	\$ 2, 571	\$ 3, 756	117
Finance companies	-----	556	338	-----
Savings banks	10	-----	-----	48
Life insurance companies	103	-----	-----	78
Fire and casualty insurance	5	-----	-----	-----
Personal trusts	22	-----	-----	-----
Nonfinancial corporations	-----	-----	-----	630
Other lenders	9	-----	-----	176
Subtotal	165	3, 127	4, 094	1, 049
Total	345	3, 129	4, 094	1, 051

¹ Corporate bonds, federally guaranteed bonds, plus bonds issued by finance and real estate companies.² Commercial paper issued by finance companies and by nonfinancial corporations plus bankers acceptances.³ "Term" commercial and industrial loans plus loans to individuals for business purposes.⁴ Short-term commercial and industrial loans plus loans to individuals for business purposes.

Note. Construction and mortgage loans for commercial properties shown in table B-4a.

TABLE B-5g.—DISTRIBUTION OF INCREMENTAL INTEREST INCOME FROM CREDITS TO FINANCIAL SECTOR
[In millions of dollars]

	Federal agency securities ¹		Short-term loans
	Long term	Short term	
Tax free lenders:			
Federal credit agencies.....			* \$234
U.S. investment accounts.....	\$3		
State and local government.....	28	\$59	
Private pension funds.....	7	5	
Other tax free investors.....	9	9	
Subtotal.....	47	73	234
Federal reserve banks.....	24	3	30
Taxable lenders:			
Commercial banks.....	91	50	* 2,430
Savings banks.....	4	5	
Savings and loan associations.....	36	10	
Life insurance companies.....	3		
Other investors.....	81	64	
Subtotal.....	215	129	2,430
Total.....	286	205	2,694

¹ Securities issued by financial intermediary agencies and agencies classified in Federal Government sector (TVA, Postal Service).

² Federal Home Loan Bank advances to savings and loan associations.

³ Loans to commercial banks, finance companies, "other financial institutions" and Federal funds.

NOTE. State housing finance agency securities shown in table B-4e. Commercial paper issued by finance companies shown in table B-4f.

TABLE B-5h.—DISTRIBUTION OF INCREMENTAL INTEREST INCOME FROM OTHER CREDITS
[In millions of dollars]

	Stock market ¹	Land loans ²
Tax free lenders:		
Real estate investment trust.....		\$20
Taxable lenders:		
Commercial banks.....	\$122	53
Savings and loan association.....		18
Mutual savings banks.....		2
Mortgage companies.....		16
Brokers.....	155	
Subtotal.....	277	89
Total.....	277	109

¹ Distribution based on loan holdings data reported in "Federal Reserve Bulletin."

² Distribution based on loan acquisition data shown in table 11-2.

