1972 ECONOMIC AND INVESTMENT REPORT

A Report to the Membership
of the
American Life Insurance Association
by

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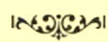

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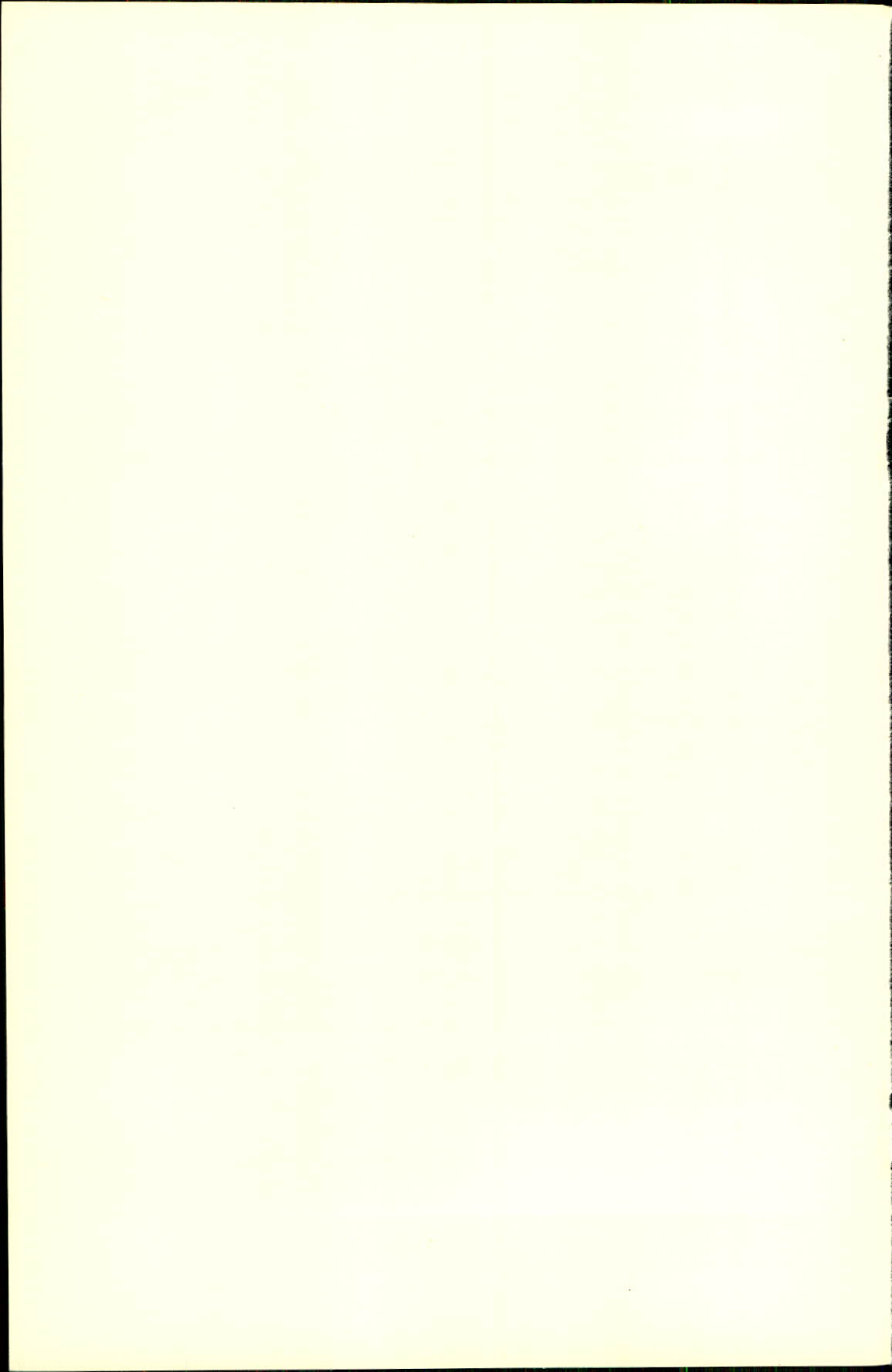


1972 ECONOMIC AND INVESTMENT REPORT

The Economic and Investment Research Program

For more than twenty-five years, the life insurance business has demonstrated its interest in the improvement of financial and economic knowledge through a continuing program of economic and investment research under the auspices of the Life Insurance Association of America. This program has consisted of two distinct but related aspects: research and analysis undertaken by the staff of the economics department, and outside research studies conducted by universities and other research organizations with financial support from the LIAA. The main objective of the program, both internal studies and outside research, has been to assist the investment side of the life insurance business through factual analysis of national economic trends and the functioning of financial markets.

The merger of the Life Insurance Association of America and the American Life Convention into a newly formed American Life Insurance Association will continue these economic and investment research activities under the auspices of the ALIA.

Staff Activities of the Economic Research Department

Collection and analysis of data on the investment operations of the life insurance business represent a major continuing function of the economic research department. The industry data gathered and distributed to life companies in periodic statistical surveys serve not only as a management tool for company operations, but also as a valuable source of current financial information for the Federal Reserve and other government bodies concerned with economic and financial policy. The continuing staff studies include monthly statistics on forward investment commitments of life insurance companies, quarterly data on the volume and sources of cash flow for investment, semi-annual data on mortgage loan delinquencies and foreclosures, and annual data on mortgage lending income and costs of life insurance companies. In addition, monthly data on yields on directly placed corporate bonds and quarterly data on interest rates and other characteristics of

income-property mortgage loans are tabulated by the economic research staff. Some of the information developed in these studies is presented in the later sections of this report.

A considerable part of the economics department's activities is devoted to working with various policy-making committees of the Association. Foremost among these functions is staff support of the Joint Committee on Economic Policy and its various subcommittees. Each year, for example, testimony on behalf of the life insurance business is prepared for submission to the Joint Economic Committee of the Congress in its hearings on the Economic Report of the President. Policy viewpoints of the life insurance business were also conveyed to officials in Washington this past year through a series of meetings with the U.S. Treasury Department, the Federal Reserve Board, the Phase Two Committee on Interest and Dividends, and economic policy officials on the White House staff. Association staff economists also provide continuing support for the Investment Advisory Subcommittee, which is charged with responsibility in the field of mortgage legislation and housing policy. In this area, recent issues have revolved around questions of equity participation in mortgage lending, the effect of rent controls on lending operations, and the regulation of settlement costs in home purchases.

Early this year, the Joint Committee on Economic Policy established a Subcommittee on Savings Incentives to examine the possibilities for new tax incentives to encourage saving through life insurance and other financial media, in order to stimulate private capital formation in the decade ahead. As background for these deliberations, the economics staff developed a special study of the wide range of savings incentives within the tax systems of various foreign countries.

Another function of the economics department is staff support for the Joint Committee on Securities Investments, newly formed this year to deal with matters relating to the bond and stock investments of life insurance companies. Major issues before this committee have been the membership on stock exchanges by institutional investors such as life insurance companies, and the related question of the structure of commission rates on stock market transactions.

In its capacity as the economic research arm of the Association, the staff frequently conducts special studies related to policy issues currently before the life insurance business. For example, the department undertook a series of studies to analyze the characteristics of policy loans of life insurance companies and the desirability of moving toward more flexible policy loan interest rates. These studies were conducted in

connection with the work of the Joint Policy Loan Study Committee, which was established to analyze the causes and consequences of the massive policy loan drain experienced by life companies in 1969 and 1970.

As a guide to investment strategy and the future course of interest rates, the economic research staff also prepares analyses of the demand and supply of funds in the money and capital markets, setting forth estimates of future trends against the background of historical data. The current staff analysis of the sources and uses of capital funds, including forecasts for 1973, is contained within a later section of this report.

During the past year, the economic research staff completed a major internal research project under the direction of Dr. George A. Bishop, senior economist. This study, entitled "The Response of Life Insurance Investments to Changes in Monetary Policy, 1965-1970," analyzes the impact of changing monetary policy and credit conditions upon the investment activities of life insurance companies, utilizing the comprehensive and unique data on cash flow and forward commitments that have been gathered from member companies over many years. Among the major findings of Dr. Bishop's study is the promptness in the response of cash flow and new commitments to changing monetary conditions, with little or no observable lag, which refutes the contention that nonbank financial institutions are somehow insulated from the effects of central bank policy. The study also analyzes the effect of longer-term changes in the structure of interest rates during the late 1960's upon the net changes in assets and direction of investments by life insurance companies. The Bishop study was distributed in booklet form to member companies and other interested readers earlier this year. Additional copies are available upon request.

Three new internal research projects by economics department staff are now under way. The first is an analysis of the factors influencing the gross flows of funds through life insurance companies, including such inflows as premiums, dividends left to accumulate, and investment income and such outflows as life and annuity benefits, dividend disbursements, salaries and expenses, and policy loan extensions. The focus of this research will be on the impact of monetary and credit factors upon gross flows during the past two decades. A second project will examine trends in the changing terms and characteristics of income-property mortgage lending by life insurance companies over the past 20 years. This research will draw upon data collected from life insurance companies by the National Bureau of Economic Research for the period

1951-1965 and by the Association since 1965. A third internal staff project is the preparation of a monograph on the role of life insurance companies in the U.S. economy. This study will provide a description and analysis of the functioning of the life insurance business and its impact on the national economy, including the nature and importance of various insurance products and services, and the role of life companies in funneling policyholder savings into various sectors of the capital market.

Still another function of the economics department is its liaison role with the academic community, especially in matters concerning the investment activities of life insurance companies. This role involves responding to inquiries for investment data, describing current investment attitudes and policies, and reviewing research manuscripts by academic authors working in the investment field. In a broad sense, the economics staff serves as a spokesman for the investment aspects of the business to university researchers and financial trade groups, in an effort to improve public understanding of the investment policies and practices of life insurance companies.

Outside Research Financed by the Association

In addition to the activities of the internal economic research staff, the Association sponsors and finances basic economic research of particular importance to the investment side of the life insurance business. This research is conducted independently by universities and private research groups outside the life insurance business. It is planned and followed closely by senior staff and by the Investment Research Committee. Since 1946, this program has provided research grants totaling close to $3 million for basic research in the fields of savings, capital markets, housing, and interest rates. These various projects are widely regarded by scholars and public officials as having been among the most important studies published in these vital areas of economic research. They have been directed by a large number of outstanding economists, men of national reputation such as Arthur F. Burns, Raymond J. Saulnier, Raymond Goldsmith, and Simon Kuznets.

Indirect recognition of the contribution made by the industry's investment research program was provided last year by the award of the Nobel Prize in Economic Science to Professor Simon Kuznets, who was director of a seven-volume study on capital formation and financing undertaken by the National Bureau of Economic Research and financed by grants from the Association. A summary volume entitled *Capital in the American Economy: Its Formation and Financing* was completed

by Dr. Kuznets in 1961. The life insurance business can take pride in the part it played in supporting this significant work by one of the leading economists of our time.

In 1972 a final report was published and distributed as part of the industry-sponsored project on Housing the Underhoused. This project, under the direction of Professor Fred E. Case of the University of California, Los Angeles, included studies of the housing problems of low-income families in nine U.S. cities. Dr. Case's volume, *Inner-City Housing and Private Enterprise,* integrates the findings of the separate studies done under his direction. Dr. Case concluded that private industry and financial institutions could make substantial contributions toward solving inner-city housing problems. He described the successes and failures of both private and public efforts to meet these problems, and made many suggestions that should be helpful to lenders, realtors, government officials, and other persons directly concerned with inner-city problems. Dr. Case found that there is a viable market for private lenders in inner-city housing if they are willing to break away from old procedures and attitudes. The emphasis of his study is on the need for close cooperation and communication among the various parties involved, and a "public and private will" to make real progress on inner-city problems.

An additional portion of the Study of Interest Rates by the National Bureau of Economic Research was completed this year with the publication of *The Channels of Monetary Effects on Interest Rates,* by Professor Phillip Cagan of Columbia University. This study, distributed to member companies at mid-year, explored the effects of changes in the rate of monetary growth upon levels of interest rates and adjustments in portfolios, distinguishing between short-run impacts and longer-term effects. The role of an inflation premium in the level of interest rates and the process of adjusting to varying monetary growth rates were also examined in some detail. The author concluded that the effects of changes in monetary growth are not confined to particular financial markets, but range widely throughout the economy.

A major new research undertaking was started last year on "The Effects of Inflation on Financial Markets," under the auspices of the National Bureau of Economic Research. Dr. Phillip Cagan of Columbia University is serving as director of the project and those responsible for major portions of the research include Dr. John Lintner of Harvard University, Dr. Thomas Sargent of the University of Minnesota, Dr. Lester Taylor of the University of Michigan, and Dr. Stanley Diller of Columbia University. The overall project consists of four main parts:

the effect of inflation on portfolios of financial institutions, relationships between inflation and long-term bond yields, the influence of price expectations on household financial portfolios, and a study of the factors influencing prices of convertible bonds. Manuscripts from the various portions of the National Bureau study are scheduled for completion in 1973.

Among the first actions of the new ALIA Board was authorization of two new research studies to be initiated in 1973. The first, to be undertaken by the Financial Research Center of Princeton University, will provide a systematic analysis of yield spreads arising from differences in issuers (utilities, industrials, governments, etc.) and by risk ratings (quality ratings by Moody's or similar groups). This study is scheduled for completion by the fall of 1973. The second new project, by a research team from New York University, will undertake to forecast demand and supply conditions in the U.S. capital markets from 1975 through 1985. This study will focus on major financial flows over the decade within an integrated framework of analysis, drawing implications for the level of long-term interest rates, differentials between rates in various markets, innovations in patterns of financing, and changes in institutional investment flows. Completion of this three-year project is scheduled for late 1975.

A complete listing of the outside research studies which have received financial support through the investment research program since its inception in 1946 may be found in the appendix to this report.

Economic and Financial Developments in 1972

Faster Growth with Less Inflation

While inflation was not conquered in 1972, it was greatly subdued. Following the inflation rates of 5.5 percent in 1970 and 4.7 percent in 1971, the inflation rate of 3 percent in 1972 was a welcome improvement. Credit for the better showing was largely due, of course, to the direct controls over wages and prices imposed in August 1971 to curb cost-push pressures and to counteract widespread inflationary expectations which had warped economic decisions about spending and saving. After 16 months of wage-price controls, new concerns have started to develop that other forms of economic distortion might emerge if free market forces are stifled by controls over a protracted period of time. Nevertheless, it seemed clear at year-end that a control system would be maintained over the greater part of 1973 in order to restrain latent cost-push forces.

The slowdown in inflation was accomplished alongside a decisive surge in real economic growth during 1972. After the 1969-70 recession, recovery in its early stages had been slow and faltering, with an increase in 1971 of only 2.7 percent in constant dollar GNP. But the second year of recovery witnessed an acceleration in real growth in 1972 to about 6½ percent—well above the long-term annual average of about 4 percent. In current dollar terms, GNP rose in 1972 by over $100 billion to $1,152 billion, an increase for the year of 9.7 percent (see Table 1).

Among the sectors advancing most rapidly this past year was residential construction, which followed its 37 percent rise of 1971 with a further increase of 25 percent in 1972. Continued ready availability of mortgage credit facilitated a high level of housing starts and permitted new housing supply to fill the backlog demand from the credit-starved period of 1969-70. Another sector of strength was private fixed investment in which spending rose more than 13 percent during 1972. Business inventories also registered a sizable gain, particularly in the second half of the year, as businessmen increased stocks in response to rapidly rising sales. Personal consumption expenditures, which account for well over half of GNP, advanced by more than 8 percent, led by heavy

TABLE 1

GROSS NATIONAL PRODUCT, 1970-72

(Seasonally adjusted annual rates)

	GNP (current dollars)		*Annual Growth Rates*		
Year and Quarter	*Level*	*Change*	*Current Dollars*	*Real Growth*	*Price Factor*
	(In billions of dollars)		*(In percent)*		
1970 I	$958.0	$9.1	3.9%	−2.5%	6.5%
II	971.7	13.7	5.9	1.5	4.3
III	986.3	14.6	6.1	2.0	4.0
IV	989.7	3.4	1.4	−4.8	6.5
1971 I	1,023.4	33.7	14.3	8.0	5.9
II	1,043.0	19.6	7.9	3.4	4.4
III	1,056.9	13.9	5.4	2.5	2.9
IV	1,078.1	21.2	8.3	6.7	1.5
1972 I	1,109.1	31.0	12.0	6.5	5.1
II	1,139.4	30.3	11.4	9.4	1.8
III	1,164.0	24.6	8.9	6.3	2.4
Calendar 1970	976.4	46.1	5.0	−0.5	5.5
1971	1,050.4	74.0	7.6	2.7	4.7
1972e	1,152.0	101.6	9.7	6.5	3.0

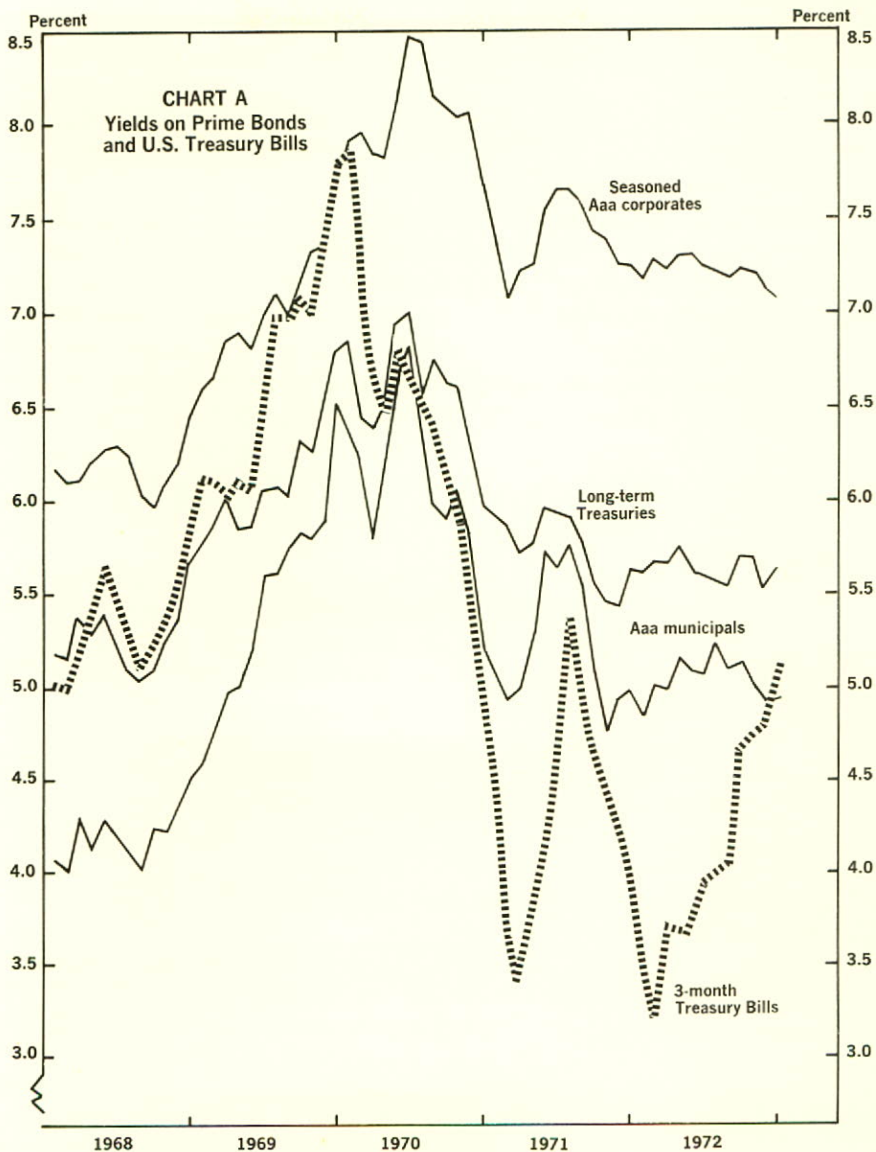
e—Estimated by LIAA economics department.

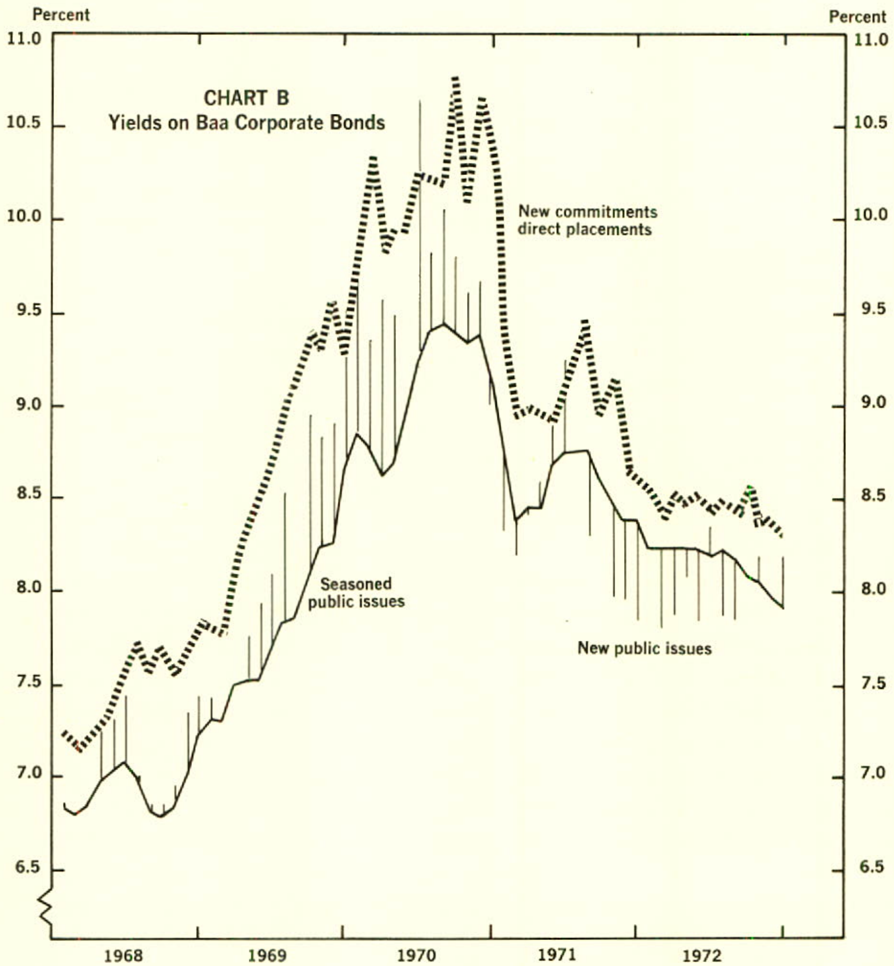
purchases of consumer durable goods such as autos, appliances and home furnishings. The faster pace of consumer spending, together with overwithholding of federal income taxes, had the effect of reducing the personal saving rate to about 6½ percent in mid-1972, down from 8 percent in the two previous years and more in line with the average saving rate of earlier years.

In the government sector, defense spending rose by $6 billion or 8 percent in 1972, erasing the decline of $4 billion in the previous year. Other federal purchases continued to rise, by $3½ billion or 14 percent, with the result that total federal purchases of goods and services rose in calendar 1972 by almost $10 billion. Unified federal budget outlays, including federal grants and transfer payments, rose from $232 billion in fiscal 1972 toward a fiscal 1973 total widely expected to approach $255 billion in spite of attempts at spending control. Following a fiscal 1972 budget deficit of $23 billion, the current fiscal year is estimated to show a deficit of $25 billion or more. Thus, federal budgetary policy continues to exert a substantial expansionary influence on the economy.

Federal Reserve monetary policy through most of 1972 was designed to support moderate growth in the monetary aggregates, with relatively minor shifts toward greater or lesser ease during the course of the year. The money supply expanded by a seasonally adjusted average annual rate of 7.4 percent during the first 11 months of 1972, while the Federal Reserve discount rate, lowered to 4½ percent near the end of 1971, was held unchanged throughout the current year. Short-term market rates of interest, after declining in the opening weeks of 1972, reversed their course and moved considerably higher over the balance of the year under the impetus of heavy Treasury financing needs and a strengthening of business loan demand. For example, the bellwether 3-month Treasury bill rate retreated to a low of close to 3 percent in February but worked progressively higher in later months to exceed 5 percent as the year drew to a close. The prime loan rate charged by banks fell from 5¼ percent to 4¾ percent in the early weeks of 1972, then began to climb in March to reach 6 percent in late December under the pressure of rising short-term market rates.

In the long-term markets for bonds and mortgages, interest rates moved essentially sideways in 1972. As shown in Charts A and B, the downward trend in bond yields which began in August 1971 with the announcement of wage-price controls was interrupted early in 1972 by a change in market psychology, prompted in large measure by indications from Treasury officials that the fiscal 1972 federal deficit might soar to $39 billion. By the fourth quarter, however, an abundant supply


Percent
Percent
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
CHART A
Yields on Prime Bonds
and U.S. Treasury Bills
Seasoned
Aaa corporates
Long-term
Treasuries
Aaa municipals
3-month
Treasury Bills
1968
1969
1970
1971
1972


Percent
Percent
CHART B
Yields on Baa Corporate Bonds
11.0
10.5
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
New commitments
direct placements
Seasoned
public issues
New public issues
1968
1969
1970
1971
1972

of long-term investment funds, together with a slackening in the pace of new long-term financing, resulted in some decline in bond yields in the corporate and municipal markets. Toward the year-end, long-term yields in most sectors of the capital market were lower than 12 months earlier.

In retrospect, a striking feature of the long-term capital market in 1972 was the relatively narrow range of fluctuations in bond yields and mortgage rates, especially in comparison with the wide gyrations of recent years. Inflation fears, which can lead to anticipatory spending and borrowing and to reduced supplies of savings and investment funds, subsided notably though they remained a significant factor. Stand-by powers to directly control interest rates were never utilized. One lesson to be drawn from the experience of 1972 is that direct controls over interest rates are not needed if financial markets are free to function in an environment of relative price stability and balanced economic growth. Stated another way, the best way to keep interest rates from reaching undesirable heights is to keep inflation rates from soaring to unacceptable levels.

Money and Capital Market Flows in 1972

Strong expansion in economic activity was reflected in a record volume of funds raised in the money and capital markets in 1972. According to estimates prepared by the Association's economics department, total financial flows in 1972 increased to $196 billion from $168 billion in 1971. (In this analysis, amounts refer to *net* increases in the outstanding debt of borrowers rather than gross flotations of new issues, and to *net* changes in holdings of specified assets by investors.)

Foremost among the uses of funds in 1972 was residential mortgage credit, which claimed $48 billion in capital market funds, as may be seen in Table 2. Moreover, comparison with the 1971 financial flows shown in Table 3 reveals that residential mortgages increased by $11 billion more than in the preceding year. The sharp rise reflected the record savings flows into mortgage-oriented thrift institutions and explains in large part the strength in residential construction previously noted. Nonresidential mortgage credit also gained during the year, with the increase estimated at $17 billion, against $12 billion last year.

Sizable increases developed in the use of funds for business credit and consumer credit. Business credit—consisting mainly of business loans of commercial banks, commercial paper borrowing, and net trade credit extended by corporations—increased by an estimated $21 billion, up

TABLE 2

ESTIMATED SOURCES AND USES OF FUNDS IN THE UNITED STATES MONEY AND CAPITAL MARKETS IN 1972

(In billions of dollars)

	Securities					*Mortgages*		*Loans and Credit*			
Sources of funds	*Corp. bonds*	*Corp. stocks*	*State & local*	*Fed. Gov't*	*Fed. agency*	*Residential*	*Nonresidential*	*Business credit*	*Consumer credit*	*All other*	*Total sources of funds*
Life insurance companies	$ 6.5	$ 3.8	$ *	$ −0.1	$ *	$ −1.7	$ 2.8	$ 0.5	$ —	$ 1.0	$ 12.9
Noninsured pension funds	−1.0	7.5	—	0.4	0.1	−0.5	—	—	—	—	6.5
State and local funds	5.5	3.0	−0.3	7.0	*	−0.2	—	—	—	—	15.0
Savings and loan assns.	—	—	—	1.0	3.0	27.5	3.5	—	*	—	35.0
Mutual savings banks	3.0	0.6	0.5	*	1.0	3.5	1.8	*	0.4	0.2	11.0
Commercial banks	1.0	—	9.0	2.0	3.0	10.5	6.0	18.0	9.0	11.5	70.0
Federal Reserve Banks	—	—	—	2.0	0.8	—	—	−0.3	—	—	2.5
U.S. investment accounts	—	—	—	7.5	*	—	—	—	—	—	7.5
Federal loan agencies	—	—	0.7	1.0	−0.2	6.0	1.0	—	—	—	8.5
Mutual funds	*	−2.0	—	−0.2	—	—	—	1.0	—	—	−1.2
Fire and casualty cos.	1.0	3.0	1.5	−0.3	−0.2	—	*	—	—	—	5.0
Nonfinancial corporations	—	—	1.0	1.0	0.5	—	—	6.0	2.5	—	11.0
Foreigners	0.8	1.7	—	9.0	*	—	—	−0.5	—	—	11.0
Individuals and others	1.2	−5.6	4.1	−6.3	1.5	2.9	1.9	−3.7	5.1	—	1.1
Total uses of funds	$18.0	$12.0	$16.5	$24.0	$ 9.5	$48.0	$17.0	$21.0	$17.0	$12.7	$195.7

*$50 million or less.

The uses of funds measure the net changes in outstanding loans and securities; the sources of funds measure the net changes in ownership.

Because of rounding, components may not add to totals shown.

TABLE 3

SOURCES AND USES OF FUNDS IN THE UNITED STATES MONEY AND CAPITAL MARKETS IN 1971

(In billions of dollars)

	Securities					Mortgages		Loans and Credit			
Sources of funds	*Corp. bonds*	*Corp. stocks*	*State & local*	*Fed. Gov't*	*Fed. agency*	*Residential*	*Nonresidential*	*Business credit*	*Consumer credit*	*All other*	*Total sources of funds*
Life insurance companies	$ 5.4	$ 3.8	$ 0.1	$−0.2	$ 0.1	$−1.3	$ 2.4	$ 0.6	$ —	$1.0	$ 11.7
Noninsured pension funds	−0.6	8.9	—	−0.3	−0.3	−0.6	—	—	—	—	7.0
State and local funds	5.3	3.2	−0.4	5.6	0.5	0.3	—	—	—	—	14.5
Savings and loan assns.	—	—	—	1.4	3.9	21.1	3.1	—	0.1	—	29.5
Mutual savings banks	3.5	0.5	0.2	0.2	1.1	2.9	1.1	−0.1	0.5	0.1	10.0
Commercial banks	0.7	—	12.8	3.2	5.1	6.4	2.9	7.2	6.7	4.9	49.8
Federal Reserve Banks	—	—	—	8.1	0.6	—	—	0.2	—	—	8.9
U.S. investment accounts	—	—	—	8.9	−0.2	—	—	—	—	—	8.8
Federal loan agencies	—	—	0.4	−1.5	−0.1	5.7	0.7	—	—	—	5.2
Mutual funds	0.6	0.4	—	−0.3	—	—	—	−0.4	—	—	0.3
Fire and casualty cos.	0.7	2.5	1.5	−0.2	−0.2	—	0.1	—	—	—	4.3
Nonfinancial corporations	—	—	1.0	2.6	0.1	—	—	2.4	2.0	—	8.1
Foreigners	0.3	0.7	—	26.3	*	—	—	−0.2	—	—	27.1
Individuals and others	7.9	−6.5	5.1	−18.9	−7.3	2.4	1.9	−3.8	2.0	—	−17.2
Total uses of funds	$23.7	$13.5	$20.6	$35.0	$ 3.3	$36.8	$12.1	$ 5.9	$11.2	$6.0	$168.1

*$50 million or less.

The uses of funds measure the net changes in outstanding loans and securities; the sources of funds measure the net changes in ownership.

Because of rounding, components may not add to totals shown.

$15 billion over the $6 billion rise of the previous year. Business concerns relied heavily on short-term credit in order to carry larger inventories and increase their working capital. Consumer credit climbed in 1972 by a record $17 billion, substantially above the $11.2 billion rise in 1971, reflecting the large gains in purchases of autos and other consumer durable goods.

Not all borrowing categories showed a growing use of funds, however. The net increase in corporate bonds in 1972 is estimated at $18 billion, down from $23.7 billion in 1971. Corporate stocks increased by an estimated $12 billion in 1972, but this was below the record $13.5 billion rise of the preceding year. In effect, corporations satisfied more of their external financing needs through short-term credit markets and less through bond and stock issuance than in 1970-71, when restoration of liquidity through long-term financing was a primary consideration for many business concerns.

In the state and local government sector, net borrowing was reduced from $20.6 billion in 1971 to an estimated $16½ billion. Lesser resort to the financial markets partly reflected a slowdown in capital construction and an improving trend in tax receipts, but the advent of federal revenue-sharing was probably a factor as well.

Although net borrowing by the U.S. Treasury declined in 1972 to an estimated $24 billion, against $35 billion in 1971, the pressure of government financing on the U.S. money markets was substantial this year. This paradox is explained in large part by comparisons of Tables 2 and 3 as to the sources of funds to finance government debt. In 1971, the $35 billion Treasury debt increase was covered in large part by the $26 billion provided by foreign investors—mostly foreign central banks investing accumulated dollar balances growing out of the international payments difficulties of that year. In contrast, foreigners supplied only about $9 billion this year, leaving a much greater amount of Treasury debt to be placed in domestic markets. Adding to the pressure of Treasury security issues was the rise in net borrowings of federal agencies (including government-sponsored enterprises) to an estimated $9.5 billion this year, compared with $3.3 billion in 1971.

The data on sources of funds show that sustained flows of savings into institutional channels, together with a sizable expansion of commercial bank credit, provided a total supply of loanable funds sufficient to finance strong economic expansion at moderate interest rates. As shown in Table 2, commercial banks were the largest single source of funds in 1972, providing an estimated $70 billion to a wide range of credit markets. This total compares with a bank credit expansion of

almost $50 billion in 1971, as may be seen in Table 3. Funds supplied by savings and loan associations climbed to an estimated $35 billion, surpassing the previous high of $29.5 billion in 1971 as these institutions enjoyed record savings inflows. Mutual savings banks also experienced new highs in deposit growth and provided an estimated $11 billion in a variety of market outlets in 1972. Taken together, these three groupings of depositary institutions supplied an estimated $116 billion to the money and capital markets—almost 60 percent of the total sources in 1972. By way of contrast, the comparable figure for depositary institutions in the tight-money year of 1969 was $28 billion or less than 25 percent of that year's total.

Life insurance companies in 1972 supplied a record $12.9 billion in capital market funds, an increase of $1.2 billion over the previous year. As shown in Table 2, corporate bonds were the major investment outlet for life company funds, with $6.5 billion added to their holdings. Corporate stock holdings rose by an estimated $3.8 billion (adjusted to exclude capital gains or losses), about the same as in the preceding year except that preferred stock accounted for a greater share of the rise than in 1971. An estimated $2.8 billion was channeled into nonresidential mortgages, while residential loans continued to run off on balance as repayments exceeded new residential loans. The rise in policy loans in 1972 was close to $1 billion, about the same as last year, but much below the $2.5 billion policy loan bulge experienced in 1969. (Further description of life company investment activities in 1972 may be found in later sections of this report.)

Economic and Financial Outlook for 1973

The current prospect for economic activity in 1973 is for a robust expansion in real terms, nurtured by a widening sense of confidence among consumers and businessmen alike. The improvement in the inflation picture, the rising trend of income and employment, an impending conclusion to the Vietnam war—all these factors are expected to foster an economic climate in which the public will choose to spend and invest more readily. The Association's economic staff estimates that GNP will rise by $114 billion to a total of $1,266 billion in 1973. Real growth is expected to exceed 6½ percent, somewhat above the growth rate of the past year. However, the GNP inflation rate is estimated to move once more above 3 percent in 1973, with a rising trend in the latter part of the year.

A key assumption in the preparation of this forecast is that wage-price controls will remain in force through most of the year, though there may be modifications in the form and coverage of the control system. Perhaps the most difficult question to gauge in advance is the extent of any price "bubble" that may develop when controls are dismantled, probably in late 1973. This forecast also assumes that the federal budgetary position will continue to add stimulus to the economy, with a deficit of $25 billion or more in the current fiscal year and a continuing deficit of perhaps $15 billion during the fiscal year beginning July 1. It is not expected that there will be an increase in corporate and personal tax rates during the year, although tax reform may receive considerable attention. The most likely prospect for monetary policy in the year ahead is that the Federal Reserve will aim at lower growth rates in the monetary aggregates but will make sufficient bank credit available to meet the rising needs for short-term business credit and to accommodate heavy Treasury financings. It is expected that the degree of monetary restraint will be increased gradually as the year progresses.

Against this background of expected economic conditions, the Association's economics staff has prepared estimates of sources and uses in the money and capital markets for 1973. A detailed cross-section analysis of expected flows between various sources of funds and specified uses of funds is presented in Table 4. A summary tabulation of the 1973 estimates also is shown in Table 5 with the historical perspective of earlier years.

Total capital market flows in 1973 are estimated at $202 billion, an increase of $6½ billion over 1972 and nearly double the amount cleared through the market five years ago. Behind the detailed estimates set forth in Tables 4 and 5 are two fundamental factors which govern the available supply of funds: the volume of saving reaching the market through financial intermediaries or by direct investment, and the amount of bank credit expansion permitted by the monetary authorities. On both counts, a growing supply of market funds is anticipated in 1973. The rate of personal saving is expected to rise in 1973, with disposable personal income increasing even faster than consumer spending. On the monetary front, it is anticipated that the authorities will accommodate the credit needs of business, consumers and government as the economy advances toward full employment, so long as clear evidence of renewed inflation does not confront them.

In more specific terms, commercial bank loans and investments are expected to increase by $75 billion, an increase of almost 13 percent for the year—slightly less than the percentage rise in 1972. A sizable portion of these funds is estimated to flow into business loans, with large

Table 4

OUTLOOK FOR SOURCES AND USES OF FUNDS IN THE UNITED STATES MONEY AND CAPITAL MARKETS IN 1973

(In billions of dollars)

	Securities					*Mortgages*		*Loans and Credit*			
Sources of funds	*Corp. bonds*	*Corp. stocks*	*State & local*	*Fed. Gov't*	*Fed. agency*	*Residential*	*Nonresidential*	*Business credit*	*Consumer credit*	*All Other*	*Total sources of funds*
Life insurance companies...	$ 6.0	$ 4.2	$ 0.1	$ −0.1	$ 0.1	$ −1.7	$ 3.5	$ 0.7	$ —	$ 1.2	$ 14.0
Noninsured pension funds..	−1.0	8.0	—	0.3	0.2	−0.5	—	—	—	—	7.0
State and local funds......	3.5	3.5	−0.5	10.0	0.5	*	—	—	—	—	17.0
Savings and loan assns.....	—	—	—	1.0	3.0	25.0	3.0	—	—	—	32.0
Mutual savings banks.....	2.0	0.7	0.2	*	0.5	3.5	2.0	*	0.5	0.1	9.5
Commercial banks.........	0.8	—	7.0	4.5	4.2	9.5	6.0	24.0	9.5	9.5	75.0
Federal Reserve Banks....	—	—	—	5.0	1.0	—	—	—	—	—	6.0
U.S. investment accounts..	—	—	—	8.0	*	—	—	—	—	—	8.0
Federal loan agencies......	—	—	0.5	0.5	*	7.0	1.0	—	—	—	9.0
Mutual funds.............	0.8	0.5	—	−0.3	—	—	—	−0.7	—	—	0.3
Fire and casualty cos......	1.2	3.2	1.6	−0.5	—	—	*	—	—	—	5.5
Nonfinancial corporations..	—	—	1.3	1.0	0.7	—	—	6.0	3.0	—	12.0
Foreigners...............	1.0	2.0	—	−2.0	*	—	—	0.5	—	—	1.5
Individuals and others.....	2.7	−11.1	2.8	−1.4	0.3	3.2	2.0	1.5	5.5	—	5.5
Total uses of funds..........	$17.0	$11.0	$13.0	$26.0	$10.5	$46.0	$17.5	$32.0	$18.5	$10.8	$202.3

*$50 million or less.

The uses of funds measure the net changes in outstanding loans and securities; the sources of funds measure the net changes in ownership.

Because of rounding, components may not add to totals shown.

Table 5

SOURCES AND USES OF FUNDS IN THE UNITED STATES MONEY AND CAPITAL MARKETS, 1964-1973

(In billions of dollars)

Sources of funds	*1964*	*1965*	*1966*	*1967*	*1968*	*1969*	*1970*	*1971*	*1972e*	*1973e*
Life insurance companies	$ 7.0	$ 7.8	$ 7.9	$ 8.3	$ 8.5	$ 8.8	$ 9.1	$ 11.7	$ 12.9	$ 14.0
Noninsured pension funds	4.9	5.2	5.9	5.3	6.0	6.4	7.2	7.0	6.5	7.0
State and local funds	3.2	5.8	6.0	5.9	7.1	12.3	4.2	14.5	15.0	17.0
Savings and loan associations	11.0	9.6	4.2	9.1	10.2	9.8	11.4	29.5	35.0	32.0
Mutual savings banks	4.2	3.9	2.7	5.0	4.4	3.0	4.0	10.0	11.0	9.5
Commercial banks	23.8	28.4	17.7	36.5	38.8	15.5	31.8	49.8	70.0	75.0
Federal Reserve Banks	3.4	3.8	3.6	4.8	3.7	4.2	5.0	8.9	2.5	6.0
U.S. investment accounts	2.6	1.3	8.2	8.4	4.9	11.2	7.7	8.8	7.5	8.0
Federal loan agencies	0.1	1.4	5.0	2.8	3.5	5.7	8.0	5.2	8.5	9.0
Mutual funds	1.0	2.0	2.5	0.9	2.4	3.4	1.6	0.3	−1.2	0.3
Fire and casualty companies	0.9	1.1	1.9	1.8	2.7	2.6	4.8	4.3	5.0	5.5
Nonfinancial corporations	3.2	2.1	−0.6	2.3	9.1	3.9	1.8	8.1	11.0	12.0
Foreigners	0.8	−0.2	−1.7	2.0	1.5	0.1	11.0	27.1	11.0	1.5
Individuals and others	7.2	1.9	13.3	−5.2	3.1	27.6	7.7	−17.2	1.1	5.5
Total sources	$73.5	$74.2	$76.5	$87.9	$105.8	$114.4	$115.4	$168.1	$195.7	$202.3
Uses of funds										
Corporate bonds	$ 6.6	$ 8.1	$11.1	$16.0	$ 14.0	$ 13.8	$ 22.8	$ 23.7	$ 18.0	$ 17.0
Corporate stocks	1.4	*	1.2	2.3	−0.9	4.3	6.8	13.5	12.0	11.0
State and local gov't issues	6.0	7.6	6.4	8.5	10.4	8.7	13.9	20.6	16.5	13.0
Federal Government issues	8.7	2.6	8.5	15.4	13.4	10.2	20.9	35.0	24.0	26.0
Federal agency issues	1.3	2.4	6.7	5.1	7.0	6.8	8.4	3.3	9.5	10.5
Mortgages: Residential	19.9	19.0	13.5	16.2	18.8	20.4	19.2	36.8	48.0	46.0
Nonresidential	5.9	6.6	7.8	6.8	8.7	7.4	7.2	12.1	17.0	17.5
Business credit	11.5	15.8	12.9	8.8	19.9	29.1	7.1	5.9	21.0	32.0
Consumer credit	8.5	9.6	6.4	4.5	10.0	10.4	6.0	11.2	17.0	18.5
All other	3.6	2.5	2.2	4.4	4.6	3.4	3.0	6.0	12.7	10.8
Total uses	$73.5	$74.2	$76.5	$87.9	$105.8	$114.4	$115.4	$168.1	$195.7	$202.3

*$50 million or less. e—estimated.

The uses of funds measure the net changes in outstanding loans and securities; the sources of funds measure the net changes in ownership.

Because of rounding, components may not add to totals shown.

amounts also for consumer credit, mortgage loans and state and local financing (see Table 4).

Funds supplied by institutions handling contractual savings flows—life insurance companies, noninsured pension funds, and state and local funds—are expected to grow further in 1973. As shown in Table 4, the $14 billion supply of funds from life insurance companies is expected to flow mainly into corporate bonds and stocks and nonresidential mortgages. Deposit-type thrift institutions, on the other hand, are estimated to supply somewhat smaller amounts to the capital market, following their record gains in savings inflows during the past two years. Savings and loan associations were the source of $35 billion in market funds in 1972 but an abatement to an estimated $32 billion is in view for 1973—still the second largest amount in their history. A similar pattern is expected for mutual savings banks, which are expected to provide $9½ billion in market funds.

Mutual funds are expected to reverse their capital market position in 1973 and once again become net suppliers of funds, following a period of net redemptions in late 1971 and 1972. In addition to their traditional emphasis on common stock investments, net purchases of corporate bonds are expected to stem from the growing popularity of bond funds.

One investor group that is expected to reduce its importance in the U.S. capital market next year is "foreigners," who provided an estimated $11 billion in 1972, largely in purchases of federal government securities. In 1973, foreigners are expected to supply less than $2 billion, running down their holdings of governments while adding to their net purchases of corporate stocks and bonds (see Table 4).

A final category, shown as "individuals and others," is made up of a miscellaneous group including not only households but also unspecified investors such as brokers and dealers, personal trusts, nonprofit endowment funds, finance companies, mortgage companies, REITs and others. This group is essentially a residual category for which little or no direct data are available. In 1973, an estimated $5½ billion is expected from these sources, in contrast to $1 billion in 1972 and a net disinvestment of $17 billion in 1971 (see Table 5). Interpretation of this group's actions has become increasingly difficult because of its volatility as a residual element, but the estimate for 1973 is intended to convey an absence of "disintermediation" of the 1969 variety or "reintermediation" in the style of 1971.

The estimates of uses of funds in 1973 indicate that the greatest rise in demand will be in short-term business credit raised through bank loans, issuance of commercial and finance paper, and the net use of trade

credit. Business credit is estimated to increase by $32 billion in 1973, about $11 billion more than in 1972. In contrast, corporations are expected to rely less heavily on bond issues and stock offerings as a source of external financing. Net new corporate bonds are expected to increase by $17 billion in 1973, against an estimated $18 billion total this year, while corporate stocks are expected to increase $11 billion, compared with almost $12 billion in 1972. While these amounts remain high by historical standards, they show a continuing decline from the record figures for bonds and stocks in 1971 (see Table 5).

Similarly, state and local government demands on the money and capital markets are expected to decline further in 1973, largely as a result of revenue-sharing grants from the federal government as well as a continuing improvement in their own budgetary positions. Accordingly, net borrowings by state and local governments are estimated to decline from $16 billion in 1972 to $13 billion in the coming year.

Still another area of decline will be the residential mortgage market, though the downturn is expected to be modest. Against a $48 billion increase in residential mortgage credit this year, a figure of $46 billion is expected next year, as shown in Table 5. The rapid spurt in new building during the 1971-72 period, aided by readily available mortgage credit, has led to overbuilding and higher vacancy ratios in some areas. To overcome this temporary indigestion in the housing market, builders are likely to hold back somewhat in 1973, with a consequent decrease in starts from 2.4 million units to perhaps 2.2 million next year. In the nonresidential mortgage market, the net use of credit is expected to rise somewhat, from $17 billion to $17.5 billion in 1973.

Sectors expected to show an increased demand for funds in 1973 include the federal government, which is estimated to require $26 billion in net financing, an increase over the $24 billion rise in outstanding Treasury debt in 1972. Similarly, net federal agency financing is expected to climb next year to $10.5 billion, primarily reflecting greater support of the housing market. Use of consumer credit, which accelerated at a rapid pace in the final months of 1972, is projected to advance to a record $18½ billion in 1973 as a result of the expected strong trend in consumer durable spending.

Between the demand for money and capital market funds and the available supply of institutional investment flows, the balance of market forces in 1973 is weighted in the direction of an abundant supply, based on a rising trend of savings and the expected availability of bank credit. For the long-term credit markets, the implication of these demand-supply projections is for moderate downward pressure on long-term

interest rates over the next several months, in spite of a likely firming in short-term rates arising from stronger demands for business credit and heavy Treasury financings. In this appraisal, the probability of a severe "credit crunch" during the months immediately ahead is relatively low, considering the abundant supply of funds and the declining demand in key sectors of the bond market.

During the second half of 1973, however, a combination of factors may bring renewed upward pressure on long-term interest rates. During this period, Federal Reserve policy is likely to move toward greater restraint on the expansion of monetary aggregates. Moreover, the rising pace of business spending should call forth renewed demands for long-term financing in the latter part of 1973. Perhaps most important to the extent of upward rate pressures will be the enlargement of the "inflation premium," as indications of demand-pull inflation begin to reappear and as the market evaluates the possible price consequences of an eventual removal of wage-price controls. Unless fiscal and monetary policies can be exerted to work against renewed inflation in the latter part of the year, the level of long-term interest rates at the close of 1973 may well be higher than at present.

Assets and Investments in 1972

Assets of U.S. life insurance companies reached $238.5 billion at the end of 1972, 7.4 percent above the total of $222 billion a year earlier. Estimates of the distribution of assets by investment classes are given in Table 6, together with the actual holdings at the end of 1970 and 1971. Notable changes during 1972 in the distribution of assets included a further rise in the share represented by corporate debt issues, a decline in the share of mortgages, and a continued rise in the share of preferred and common stocks.

For the second consecutive year, corporate debt issues gained ground as the single largest component of assets, amounting to $86.4 billion and increasing their proportionate share to just over 36 percent of the total. Market demands for corporate bond financing continued sizable in 1972, even though less than in 1971. While public offerings decreased, direct placement bond offerings—a principal investment outlet for many life insurance companies—reached a record, amounting to about $9 billion, up from $7.35 billion in 1971 and also above the previous high of $8.15 billion in 1965. Corporate debt securities held

TABLE 6

ASSETS OF U.S. LIFE INSURANCE COMPANIES, 1970-1972

(Dollar amounts in millions)

Asset Class	December 31, 1970		December 31, 1971		Estimated December 31, 1972	
	Amount	%	Amount	%	Amount	%
Bonds, Notes and Debentures						
U.S. Treasury	$ 4,042	2.0	$ 3,828	1.7	$ 3,700	1.6
U.S. Federal Agency	532	0.3	627	0.3	650	0.3
U.S. State and Local	3,306	1.6	3,363	1.5	3,375	1.4
Foreign Government and International	3,188	1.5	3,182	1.4	3,375	1.4
Total Government	11,068	5.3	11,000	5.0	11,100	4.7
Corporate—1 year or less	2,142	1.0	2,770	1.2	3,300	1.4
U.S. Corporate—Over 1 year	66,650	32.2	72,045	32.4	78,575	32.9
Foreign Corporate—Over 1 year	4,306	2.1	4,383	2.0	4,500	1.9
Total Corporate	73,098	35.3	79,198	35.7	86,375	36.2
Stocks						
Preferred	3,547	1.7	3,828	1.7	5,025	2.1
Common	11,873	5.7	16,779	7.6	21,075	8.8
Total Stocks	15,420	7.4	20,607	9.3	26,100	10.9
Mortgages						
Farm	5,649	2.7	5,601	2.5	5,650	2.4
Nonfarm	68,726	33.2	69,895	31.5	71,025	29.8
Total Mortgages	74,375	35.9	75,496	34.0	76,675	32.1
Real Estate	6,320	3.0	6,904	3.1	7,475	3.1
Policy Loans	16,064	7.8	17,065	7.7	18,050	7.6
Cash	1,758	0.8	1,763	0.8	1,800	0.8
Other	9,151	4.4	10,069	4.5	10,925	4.6
Total Assets	$207,254	100.0	$222,102	100.0	$238,500	100.0

The valuation basis for each classification is admitted asset (statement) value.

Source: *Life Insurance Fact Book;* 1972 estimated by LIAA in cooperation with Institute of Life Insurance.

by life insurance companies at the end of 1972 included an estimated $3.3 billion for issues with maturities of one year or less, roughly $2 billion below their peak level in the fall but still moderately large for a year-end date. These temporary investments help to meet the liquidity needs of the companies against the takedown of long-term investments of all types. The estimate reflected not only the closing of longer-term loans in sizable amounts in the final weeks of the year but also delays beyond the scheduled disbursement date in the closing of some loans, particularly for mortgages on commercial buildings and apartments.

Mortgage holdings represented a substantial, but declining, share of total assets—32 percent of the total at the end of 1972, down from 34 percent at the end of 1971 and the recent peak of 38.6 percent at the end of 1966. Of the $76.7 billion held in mortgages at the end of 1972, $74.5 billion was on properties in the United States and the balance of $2.2 billion for foreign mortgages was largely on Canadian properties. U.S. mortgages included $38.3 billion held on residential properties, $30.6 billion for nonfarm nonresidential properties, and $5.6 billion for farm and ranch loans. These levels compared with $40 billion for residential mortgages at the end of 1971, $27.8 billion for nonresidential loans, and $5.56 billion for farm and ranch loans. The decrease in residential mortgage loans again, as in 1971, reflected a large net decline in loans backed by 1-4 family properties (to $21.6 billion from $23.8 billion at end-1971) that more than offset a modest increase in loans on apartments (to $16.7 billion from $16.2 billion at the end of 1971). Repayments by borrowers of home loans continued to run far in excess of the new loans made on such properties by life companies. Repayments from monthly amortization were enlarged by substantial amounts—about half of the total—from home loans paid off in full, as the mortgagors under the old loans sold their properties to new owners.

Corporate stock holdings, although considerably smaller than corporate bonds and mortgages, continued their rapid rise in importance in the assets of life insurance companies. The total of over $26 billion represented about 11 percent of assets—a new high—as compared with 9.3 percent at the end of 1971 and 7.4 percent two years earlier when the dollar value of stock holdings was less than $15½ billion. By the end of 1972, about one-third of the stock total was held in separate accounts (funds which are permitted to be segregated from the general accounts of the companies, usually for pension business, and which have wide latitude for investments in equities). At the end of 1971, 31.5 percent of total stocks held represented holdings in separate accounts.

Loans to policyholders on the cash values of their policies, while ex-

ceeding $18 billion, receded as a proportion of total assets to 7.6 percent from 7.7 percent at end-1971. This marked the second consecutive year of slackening in the pace of policy loan growth following the rapid increases in the years 1966-70.

Rate of Net Investment Earnings

The net rate of earnings from the invested assets of life insurance companies is estimated at 5.59 percent for 1972, a rise of 15 basis points over the 1971 rate, as shown in Table 7. In dollar terms, net investment earnings are estimated at $12.1 billion in 1972, $1.1 billion above the amount reported by life insurance companies in 1971.

As noted in the table, the earnings rate is based on total financial assets held by the companies, including separate accounts, but excludes capital gains or losses. The earnings rate of the general accounts alone (excluding separate accounts) is estimated at 5.70 percent for 1972, 18 basis points above the comparable 1971 rate of 5.52 percent.

Net Changes in Assets During the Year

The estimated net increase in broad categories of life company assets in 1972, together with the actual increases in 1970 and 1971, are shown in Table 8. Net asset changes reflect valuation adjustments as well as net investment during a year. The increase in total assets of $16.4 billion for 1972 included an estimated net valuation gain of $1.6 billion, as compared with a gain of similar amount in 1971 and a loss of $0.7 billion in 1970. When adjusted for valuation changes, the asset increase

TABLE 7

NET INVESTMENT EARNINGS
AND THE RATIO OF EARNINGS TO INVESTED ASSETS
U.S. LIFE INSURANCE COMPANIES

(Dollar amounts in millions)

Year	*Amount*	*Percent*	*Year*	*Amount*	*Percent*
1957	$3,556	3.75%	1968	$8,613	4.95%
			1969	9,354	5.12
1962	5,415	4.34	1970	10,144	5.30
			1971	11,031	5.44
1967	7,929	4.82	1972e	12,125	5.59

e—Estimated by the Life Insurance Association of America.

Source: *Life Insurance Fact Book.*

Note: Investment earnings are after investment expenses but before federal income taxes and reflect income received (excluding capital gain or loss) from the total financial assets held by the companies, including assets held in separate accounts.

TABLE 8

NET CHANGES IN ASSETS, 1970-1972
U.S. LIFE INSURANCE COMPANIES

(In millions of dollars)

Asset Class	*1970*	*1971*	*Estimated 1972*
Bonds, Notes, and Debentures			
U.S. Treasury and Federal Agency	$ 60	$ −119	$ −105
U.S. State and Local	85	57	12
Foreign Government and International	9	−6	193
Corporate	2,239	6,100	7,177
Total	2,393	6,032	7,277
Stocks	1,713	5,187	5,493
Mortgages	2,348	1,121	1,179
Real Estate	408	584	571
Policy Loans	2,239	1,001	985
Cash and Other Assets	945	923	893
Net Increase in Assets	$10,046	$14,848	$16,398

Note: Included in the above figures are net increases in assets of separate accounts of $1.44 billion in 1970, $2.46 billion in 1971, and an estimated $2.5 billion in 1972.

came to $14.8 billion in 1972, $13.3 billion in 1971, and $10.8 billion in 1970.

In many respects, the 1972 changes by asset classes roughly paralleled those of 1971. The most marked increase again was in holdings of corporate debt issues, both long- and short-term, but the 1972 rise of $7.2 billion was even more than the $6.1 billion in 1971. The corporate bond component of $6.65 billion compared with $5.47 billion in the earlier year while short-term issues increased by some $500 million as against $628 million in 1971. The bond figures were in sharp contrast with 1969 and 1970 when net investment in corporate bonds amounted to less than $2 billion each year. The greater availability of funds from life insurance companies in the past two years was important to the stepup in long-term financing through the direct placement market. The year 1972 saw numerous offerings in this market, many of which were disbursed within a relatively short period after commitment and some of which were unusually sizable, most notably the $1 billion AT&T financing arranged with a group of life insurance companies in late 1971 and disbursed in the first half of 1972. Although the greater part of this financing represented preferred stocks, the debt portion nevertheless amounted to $375 million.

The somewhat larger net increase in corporate stock holdings in 1972 over 1971 primarily reflected a greater rise in market values. The 1972

net increase in total stocks of $5.5 billion included an estimated net gain of $1.7 billion from the rise in market values as against a market gain of just over $1.4 billion in 1971. Excluding valuation changes, the net increase in holdings of total stocks amounted to $3.8 billion in 1972—$2.6 billion for common stocks and $1.2 billion for preferred stocks. In 1971, net investment in stocks was also $3.8 billion but this total was differently allocated—$3.46 billion for common stocks and $300 million for preferreds. The AT&T financing noted above included $625 million for preferred stocks, and these accounted for a good part of the increased investment in preferred stocks in 1972 over 1971. Preferred stock investment is virtually all for the regular accounts of the companies while roughly half of the $2.6 billion net investment in common stocks was for the separate accounts.

Mortgage holdings were estimated to increase by $1.2 billion during 1972, little more than in 1971 ($1.12 billion). In 1972, the growth in disbursements for mortgages was about matched by the growth in repayments of such loans, thus roughly maintaining the same net investment as in 1971. In the earlier year, the acceleration in mortgage acquisitions was overwhelmingly outpaced by a surge in repayments, which grew by one-third over those in 1970.

With respect to the net changes by type of financing, nonfarm conventional mortgages increased by $2.3 billion in 1972 but this growth was offset by a further runoff, amounting to $1.16 billion, in holdings of government-backed loans. A small increase in farm mortgages—less than $50 million—was in contrast with a decrease of a similarly small amount in 1971.

In recent years, mortgage figures by property type have been regularly reported for loans in the United States. Among nonfarm loans in the U.S., the net investment in nonresidential mortgages was sizable in 1972—nearly $2.8 billion, up from $2.4 billion in 1971. The net increase in apartment loans of $500 million was somewhat less than the $700 million in 1971, while the net decrease in holdings of 1-4 family mortgages was about $2.2 billion in 1972 as compared with the 1971 decrease of $2.05 billion.

The net increase in policy loans of about $1 billion in 1972 also differed little from 1971 and continued to reflect the greater monetary ease of the past two years in contrast with the 1969-70 experience. In those years, the net increases in policy loans were in excess of $2 billion a year as policyholders sought loans from their insurance companies on the cash values of their policies in unprecedented amounts, in response to the lack of availability of loans elsewhere and the contractually set

interest rate on policy loans that was low in relation to prevailing market rates of interest.

Acquisitions of Investments

Acquisitions of investments show more fully than net changes in assets the extent of the activity of the investment operations of life insurance companies, both in short-term and long-term market instruments. Acquisitions were up sharply in 1972—the total reached nearly $95 billion, an increase of 20 percent over 1971 and of 52 percent over 1970. As shown in Table 9, short-term issues accounted for a large part of acquisitions—about 60 percent of the total in these years. When short-term securities were excluded, 1972 acquisitions of $36 billion were about $4 billion, or 12 percent, more than in 1971.

Corporate debt acquisitions of $67 billion in 1972 included $14 billion of bonds, some $2 billion more than the $11.7 billion of corporate bond acquisitions in 1971 and twice the $6.8 billion in 1970. The balance—and greater part—of corporate debt acquisitions represented short-term issues, which amounted to $53 billion in 1972, up from $41.8 billion in 1971 and $34.6 billion in 1970. These issues (principally commercial and finance company paper) serve as a part of cash positions for many life insurance companies and reach impressive totals because of the size of the units, the temporary nature of such holdings—perhaps for only a few days or weeks—and the attendant multiple transactions during a year.

Corporate stock acquisitions of over $8 billion were again in record volume and reflected increasing activity of the companies in this market in recent years for both their separate and regular accounts. The growth in acquisitions had their counterpart in a pickup in sales and other disposals of stocks, estimated at nearly $4.4 billion in 1972 as compared with $3 billion in 1971. Total transactions (acquisitions and disposals combined) reached $12.5 billion in 1972, up from $9.8 billion in the previous year.

Mortgage acquisitions are estimated at $7.9 billion for 1972 and thus were less than corporate stock acquisitions for the first time on record. Although mortgages were acquired in a slightly larger amount than in 1971, repayments also increased. Part of these increases reflected a greater frequency of refinancings (with the same life company) with the loan appearing in both sets of figures—the refinanced portion in repayments and the new loan amount in acquisitions. Early in the year, mortgage acquisitions fell short of repayments and other transactions decreasing the mortgage account, and mortgage holdings showed net

TABLE 9

ACQUISITIONS OF INVESTMENTS, 1970-1972
U.S. LIFE INSURANCE COMPANIES

(In millions of dollars)

Asset Class	*1970*	*1971*	*Estimated 1972*
Bonds, Notes, and Debentures			
U.S. Treasury and Federal Agency	$ 4,217	$ 6,350	$ 6,350
U.S. State and Local	208	385	350
Foreign Government and International	187	276	475
Corporate	41,405	53,517	67,200
Total	46,017	60,528	74,375
Stocks	4,086	6,785	8,150
Mortgages	7,181	7,573	7,925
Real Estate	859	1,035	1,100
Policy Loans	4,149	3,400	3,325
Total Acquisitions	$62,292	$79,321	$94,875
Memo: Short-term acquisitions included above	$38,412	$47,166	$58,825

Source: *Life Insurance Fact Book* and estimates of the Institute of Life Insurance.

decreases for two months. Even with some acceleration in mortgage acquisitions in the closing weeks, loan disbursements for many companies lagged below desired levels for the year as a whole.

Although the companies began the year with a backlog of over $10 billion in mortgage commitments yet to be disbursed and made new mortgage commitments during the year in excess of $12 billion, concerted efforts to disburse funds encountered many obstacles. Commitments continued to be canceled, in larger amounts even than in 1971, as borrowers for now-completed projects obtained alternative financing at rates lower than those prevailing when the permanent financing was arranged a year or so earlier, prior to the start of construction. Many projects ran into the usual delays involved in new construction, thus pushing closing dates on the loans further into the future.

Among other investment categories, U.S. Treasury and Federal agency issues were acquired in a total amount of $6.35 billion in 1972, the same as in 1971. Included in the 1972 total was an estimated $5.4 billion in short-term issues and just under $1 billion of longer maturities, approximately the same breakdown as in 1971. As also shown in Table 9, gross acquisitions of policy loans of some $3.3 billion in 1972 were slightly less than in 1971.

These data on acquisitions do not provide a fully meaningful measure of the volume of funds available for investment from life insurance companies in a year since they are inflated by the inclusion of exchanges and noncash items. Most companies report acquisitions throughout the year

in a form consistent with the requirements of their annual statements, which set out every securities transaction in detail. Refinancings and renegotiations of terms on mortgages and directly placed securities may be reported both as disposals and as acquisitions. Exchanges and bookkeeping transfer items frequently show up in the gross acquisition figures. Because of this inflation of the acquisition data, it is necessary to consider data on cash flow as a measure of investment funds available from life insurance companies.

Cash Flow for Investment

Quarterly surveys, instituted in 1957 by the LIAA research staff, provide information on the inflow of funds available to life insurance companies for long-term investment. In this reporting system "cash flow" is defined as the net increase in ledger assets (reflecting premium payments and investment income, net of expenses), the return flow from existing investments (i.e., repayments and sales), and miscellaneous items, including borrowed money; funds available from these sources are reduced by net increases in policy loans, by net increases in cash position, and by net repayments of borrowed money when arriving at the total of funds available for long-term investment in securities, mortgages, and real property. Since cash position includes holdings of short-term securities as well as cash and bank deposits, total cash flow reflects the change in holdings of short-term issues but excludes the turnover of these securities.

On the basis of this definition, cash flow of the life insurance business totaled an estimated $29.9 billion in 1972, $5 billion greater than in 1971, an annual increment second only to that in 1971. The estimates given in Table 10 for all U.S. life insurance companies are based on the cash flow reports of a sample group of companies; the 1972 preliminary estimate reflects projections for the last quarter of the year.

Virtually all components of cash flow grew further in 1972, contribut-

TABLE 10

ESTIMATES OF CASH FLOW FOR MARKET INVESTMENTS
U.S. LIFE INSURANCE COMPANIES

(In billions of dollars)

Year	Amount	Year	Amount
1962	$13.4	1968	$17.3
1963	15.7	1969	14.9
1964	16.7	1970	16.6
1965	18.2	1971	24.9
1966	16.9	1972p	29.9
1967	16.8		

p—Preliminary.

ing to the $5 billion upturn over the 1971 total. By far the largest part of the increase came from the return flow from the securities account, while an acceleration in the net increase in ledger assets and in the return flow from the mortgage account contributed more moderately. The return flows from securities increased by $2½ billion over 1971, largely from sales—bonds as well as stocks—but also from maturities (including scheduled amortization payments) and calls. The net increase in ledger assets grew by approximately $1½ billion and the return flows from mortgages by over $500 million from their 1971 totals, with nearly all of the mortgage increment representing prepayments in full. In both 1971 and 1972, the net increases in policy loans diverted about $1 billion from investment funds otherwise available for market investments, and this account thus showed no substantive difference between the two years.

Quarterly totals of cash flow and its components as reported by a sample group of companies are provided in Table 11. In each of the three quarters shown for 1972, the net increase in ledger assets and the return flows from mortgages and securities were larger than in the corresponding period of 1971, with the margins particularly wide for sales of securities and for ledger asset growth. A noticeable downturn in the third-quarter cash flow total from the second quarter largely reflected a turnaround in the change in cash position. Cash position was built up in a record amount in the third quarter in anticipation of an even larger drawdown in the final quarter of the year.

Mortgage Commitments of Life Insurance Companies

Based on the monthly reporting of a large sample of life insurance companies, LIAA estimates of new and outstanding mortgage commitments of all life insurance companies have been provided to the Department of Housing and Urban Development over the past three years. HUD serves as the collecting agency of similar forward commitment data and figures on gross mortgage flows of ten lending groups. Gross mortgage flow data of life insurance companies are provided by the Institute of Life Insurance, and the statistics for all lending groups are available in monthly news releases of HUD. The other groups covered in the reporting system at the federal government level are commercial banks, savings and loan associations, mutual savings banks, private noninsured pension funds, state and local government retirement funds, state and local credit agencies, mortgage investment trusts, GNMA pools and FHDA blocks of loans, and federal credit agencies.

Since forward investment commitments represent agreements to

TABLE 11

INFLOW OF INVESTMENT FUNDS OF REPORTING LIFE INSURANCE COMPANIES, QUARTERLY

(In millions of dollars)

Sources of Investment Funds	*1971*				*1972*		
	I	*II*	*III*	*IV*	*I*	*II*	*III*
Net change in:							
Ledger assets	$2,483	$1,863	$2,240	$2,469	$2,509	$2,132	$2,599
Cash position*	−487	−304	−413	876	−797	507	−971
Mortgages—total	994	1,196	1,190	1,113	1,169	1,276	1,317
Amortization and partial prepayments	705	654	641	653	721	645	669
Other repayments	285	475	545	458	443	629	644
Sales	3	66	4	3	5	2	3
Securities—total	1,445	1,869	1,376	1,943	1,830	2,204	2,186
Maturities	611	931	547	847	642	871	669
Calls	123	116	121	150	148	148	143
Outright sales	711	822	709	946	1,040	1,185	1,374
(bonds)	(244)	(228)	(196)	(327)	(292)	(414)	(442)
(stocks)	(467)	(594)	(512)	(619)	(748)	(771)	(933)
Sales of real estate	21	19	21	28	18	35	31
Sales and repayments of other assets	13	17	12	16	12	11	8
Net change in liability for borrowed money	38	12	−8	−26	42	79	−63
All other sources	**	1	5	2	**	**	**
Total investment funds	4,508	4,673	4,424	6,421	4,784	6,245	5,108
Net increase (−) in policy loans	−179	−183	−219	−185	−154	−206	−173
Total cash flow	$4,329	$4,489	$4,204	$6,236	$4,630	$6,039	$4,935

*An increase in cash position is shown as a negative and a decrease is shown as a positive figure.
**Less than $500,000.
Reporting companies represent nearly 80 percent of the total assets of U.S. life insurance companies.

provide financing at some future date, they precede the actual disbursements of funds by varying periods of time, depending on the type of property, whether new or existing buildings are involved, whether the commitment is for the construction loan, the permanent loan, or both. Although life insurance company commitments may involve both the construction and permanent financing, a large proportion represents the long-term loan only, so that life company commitments provide the basis by which developers are enabled to obtain from other lenders, often commercial banks, the interim financing required during the construction period.

As shown in Table 12, new mortgage commitments were made in even greater volume in 1972 than in 1971. The total of $10 billion for the first nine months of 1972 exceeded the 12-month total in 1971 ($9.6 billion) and was markedly above the 1970 annual total of $5.6 billion. This progression accompanied the improvement in cash flow, noted in the preceding section, and was in sharp contrast with the net increases in mortgage holdings during the latest two years.

Income Property Mortgage Commitments

During recent years a sample of life insurance companies has reported information to the research staff on each nonfarm mortgage commitment of $100,000 and over. The surveys, begun in July 1965, continue

Table 12

NEW COMMITMENTS MADE FOR MORTGAGES ON U.S. PROPERTIES
U.S. LIFE INSURANCE COMPANIES

(In millions of dollars)

Year and Quarter		*Farm*	*Nonfarm*		*Total*
			Residential	*Nonresidential*	
1970	I	$ 56	$ 381	$ 818	$1,255
	II	80	548	948	1,576
	III	52	445	862	1,359
	IV	97	605	753	1,455
	Year	285	1,979	3,381	5,645
1971	I	118	560	1,159	1,837
	II	147	739	1,872	2,758
	III	140	864	1,683	2,687
	IV	185	749	1,408	2,342
	Year	590	2,912	6,122	9,624
1972	I	203	938	1,799	2,940
	II	218	1,119	2,446	3,783
	III	175	1,098	2,037	3,310

a series covering the period 1951 through June 1965 developed by the Study of Interest Rates, a research project financed by the LIAA and conducted by the National Bureau of Economic Research under the direction of Professor Jack M. Guttentag. Summary data for the earlier period are available from the Federal Reserve Board (see the *Federal Reserve Bulletin,* June 1971, page 547), and selected data for more recent periods are carried in current issues of the *Bulletin*. Because of its interest in this important part of the mortgage market, the Federal Reserve had made a substantial contribution of staff and computer time to the processing of the extensive volume of statistics collected by the NBER project. The data represent the only series available on the terms of lending in this sector of the capital market.

Table 13 provides commitment totals and averages for a few of the loan characteristics covered by the LIAA surveys. As shown by the

TABLE 13

COMMITMENTS OF $100,000 AND OVER ON MULTIFAMILY AND NONRESIDENTIAL MORTGAGES MADE BY REPORTING LIFE INSURANCE COMPANIES, 1966-1972

Year or Quarter	*No. of Loans*	*Total Amount Committed* ($000,000)	*Average Loan Amount* ($000)	*Average Interest Rate* (by #)	*Weighted Average Interest Rate*	*Average Loan to Value Ratio*	*Average Term (Years/ Months)*
			Annual Totals and Averages				
1966	2,796	$2,516	$ 900	6.42%	6.35%	70.0%	20/5
1967	2,726	3,027	1,111	6.97	6.92	71.0	21/2
1968	2,569	3,244	1,263	7.66	7.65	73.6	22/11
1969	1,788	2,921	1,633	8.69	8.62	73.3	21/8
1970	912	2,341	2,567	9.93	9.86	74.7	22/8
1971	1,664	3,983	2,393	9.07	8.99	74.9	22/10
			Quarterly Totals and Averages				
1970 I	193	$ 580	$3,006	9.74%	9.70%	72.9%	22/7
II	202	639	3,165	9.90	9.87	74.5	22/7
III	250	545	2,179	10.01	9.97	75.9	21/5
IV	267	577	2,161	10.01	9.93	75.1	23/11
1971 I	283	731	2,582	9.38	9.30	74.1	23
II	486	1,288	2,651	8.94	8.84	75.4	23/1
III	514	1,187	2,309	9.05	8.99	74.7	22/5
IV	381	777	2,038	9.05	8.96	75.2	23
1972 I	449	1,152	2,567	8.60	8.48	74.7	23/2
II	714	1,464	2,050	8.50	8.44	75.8	23/7

Averages are based on number of loans except for the weighted interest rate which is derived by weighting each rate by the amount of the commitment.

Reporting companies account for 55 percent of nonfarm mortgages held by U.S. life insurance companies.

quarterly averages, interest rates had decreased by the second quarter of 1972 to around the 8½ percent level from their peak of about 10 percent in late 1970, as funds for mortgage financing became increasingly available not only from life insurance companies but also from other lenders. In each of the first two quarters of this year, the dollar volume of commitments was the highest on record for comparable time periods, and the number of loans authorized in the second quarter was the largest in four years.

In the perspective of earlier periods, however, the record second-quarter dollar total was reached with a comparatively limited number of loans, a reflection of the growth in the average size of loans—from less than $1 million in 1965-66 to over $2 million currently. The increase in average loan size stems from several factors, primarily the rising costs of construction and the inflation of property values accompanying rising rental incomes from buildings. In addition, the growth of lending institutions has permitted larger commitments to a single mortgage loan. Another factor, although minor, has been the increase in loan-to-value ratios, i.e., lenders currently lend more against a given property value than in earlier years.

Loan-to-value ratios have averaged around 75 percent in recent periods as compared with ratios of about 70 percent or lower in the earliest quarters covered by the LIAA surveys. Although 75 percent is a usual statutory limit for conventional loans made by life insurance companies, the laws of a few states permit 80 percent loans. Loans in excess of these limits are occasionally made, usually involving the exercise of the "basket" or "leeway" clause in the investment laws to qualify that part of the loan in excess of the standard loan-to-value ratio. A loan that is additionally secured by a net lease to a high credit rating corporation may also exceed the standard ratio. The survey data include government-backed mortgages, and these usually are very full loans, as much as 100 percent of value. On the other hand, mortgages representing 50 percent or less of value are also made and are frequently found among hospital loans.

No consistent relationship between maturities and interest rates was shown by the overall averages in the 1969-71 period. This year, as interest rates declined, term to maturity lengthened, averaging 23 years, 5 months for the six-month period as compared with just under 23 years in the twelve months of 1971. The figures reflect a constantly changing mix of loans in which fully amortizing conventional loans predominate, although by varying proportions depending on the presence of government-backed mortgages and partially amortizing loans. The former

usually involve very long maturities, while the latter have carried terms of under 20 years. For fully amortizing conventional loans, maturities have lengthened in nearly every quarter of recent years, moving from 22½ years in late 1968 to over 25 years in 1971 and averaging 25 years, 8 months in the first half of 1972.

Averages of interest rates by major property types for the years 1966-71 and the first two quarters of 1972 are given in Table 14, together with the proportionate share of total commitments represented by each property type. The three property types of conventionally financed apartments, office buildings, and commercial retail properties (including shopping centers) together have accounted for the bulk of the total

TABLE 14

AVERAGE CONTRACT INTEREST RATES AND PERCENTAGE DISTRIBUTION OF COMMITMENTS BY MAJOR PROPERTY TYPE, 1966-1972

Property Type	*1966*	*1967*	*1968*	*1969*	*1970*	*1971*	*1972*	
							I	*II*
Conventional apartments	6.44%	7.01%	7.75%	8.62%	9.78%	8.98%	8.59%	8.50%
(% of total)	(39.7)	(40.2)	(44.4)	(41.9)	(29.4)	(29.7)	(34.6)	(33.0)
Office buildings	6.23	6.81	7.60	8.56	9.86	8.90	8.38	8.36
(% of total)	(23.2)	(26.1)	(19.7)	(25.4)	(39.3)	(34.8)	(32.2)	(23.3)
Commercial retail	6.26	6.87	7.65	8.64	10.24	9.04	8.36	8.34
(% of total)	(17.1)	(14.3)	(10.1)	(11.3)	(13.4)	(17.4)	(18.7)	(20.4)
Commercial services	6.41	6.81	7.61	8.63	10.19	9.18	8.79	8.63
(% of total)	(5.6)	(6.0)	(5.8)	(3.9)	(3.3)	(4.6)	(2.4)	(5.9)
Institutional and recreational	6.36	6.85	7.32	8.56	9.54	9.08	8.60	8.72
(% of total)	(3.2)	(3.7)	(5.2)	(3.8)	(3.0)	(2.3)	(3.3)	(4.3)
Industrial	6.38	6.84	7.67	8.94	10.05	9.26	8.47	8.49
(% of total)	(6.1)	(3.9)	(3.3)	(5.3)	(3.1)	(4.2)	(2.5)	(3.7)
FHA apartments	5.25	6.00	6.28	7.40	8.50	7.57	7.00	7.25
(% of total)	(0.9)	(0.8)	(4.2)	(1.1)	(2.5)	(1.3)	(0.6)	(2.6)
NHA apartments	6.75	7.25	8.80	9.49	10.49	9.40	*	8.99
(% of total)	(0.1)	(0.1)	(2.9)	(0.4)	(0.5)	(1.0)		(0.8)
Hotels and motels	6.60	7.23	7.87	8.86	9.78	9.62	8.63	8.71
(% of total)	(4.1)	(4.9)	(4.4)	(5.5)	(4.4)	(2.9)	(3.8)	(5.6)
Total*	6.35	6.92	7.65	8.62	9.86	8.99	8.48	8.44
Amount committed ($000,000)	$2,516	$3,027	$3,244	$2,921	$2,341	$3,983	$1,152	$1,464

*Data not shown where there are fewer than three loans. The total may include a few commitments for property types not shown separately. Percentages are based on dollar amounts.

amount committed, averaging 82 percent in both 1970 and 1971 and just over 80 percent in the first half of 1972. In the first half of this year, the share for apartments turned up to 34 percent from less than 30 percent in 1971, while commercial retail properties represented 20 percent, against 17 percent last year. The proportion for office buildings receded to 27 percent from its high levels of 35-39 percent in the preceding two years. These proportions, based on dollar amounts, are affected by the very large size of some office building commitments.

Income and Costs of Mortgage Loan Portfolios

This year a survey of income and costs of the total mortgage portfolios of life insurance companies was conducted by the LIAA research staff to determine the results for 1971. For previous years (1948-70), separate surveys were made of farm and nonfarm mortgage portfolios. The number of companies active in farm mortgage lending has dwindled over the years, and for those still active, farm loans have become a decreasing part of their total mortgage lending operations. Figures from the separate surveys have been combined for a number of years to provide a time series of income and cost ratios for the total portfolio, and the 1971 results are provided in Table 15 in the perspective of selected earlier years. (It may be noted that the surveys originated with similar studies, covering the years 1945-47, conducted for the National Bureau of Economic Research by Dr. Raymond Saulnier.)

Table 15

AVERAGE RATE OF INCOME AND COSTS AND TURNOVER PERIOD OF MORTGAGE LOANS HELD BY REPORTING LIFE INSURANCE COMPANIES

	1955	*1960*	*1965*	*1970*	*1971*
			(In percent)		
Gross cash income	4.51%	4.99%	5.46%	6.09%	6.36%
Total costs	.59	.49	.44	.34	.32
Originating fees and premiums	.07	.03	.03	.01	.01
Servicing fees	.21	.21	.18	.14	.13
Home and branch office costs	.31	.25	.22	.18	.17
Net cash income	3.92	4.50	5.02	5.75	6.04
			(In years)		
Turnover period	9.6	12.6	10.6	17.0	13.2

Note: Because of rounding, components may not add to totals shown. Income and cost items are on a cash accounting basis and are percentages of the average of month-end holdings during the year. Reporting companies account for about 85 percent of the mortgage loans held by U.S. life insurance companies.

The average ratios in Table 15 are derived from aggregates of dollar figures and thus are heavily influenced by the experience of companies having sizable investments in mortgages. They include the results of individual companies that differ, sometimes widely, as to size and composition of mortgage portfolios, average size of loans, and the organization for originating and servicing loans. The underlying studies provide considerable detail intended to be of use to companies in accounting for differences from the weighted averages.

As shown in the table, the average net income rate increased markedly over the sixteen years from 1955 to 1971, due largely to improved gross income rates but also to decreases in the ratio for total operating costs. The improvement in cost ratios has been associated with increasing portfolios, since costs usually do not rise proportionately with portfolio growth, and also with the shift of portfolios into conventional loans on multifamily and nonresidential properties. These loans, because of their larger average size, involve lower unit costs than loans on 1-4 family properties. In addition, like other business firms, life insurance companies have worked continuously to keep costs under control.

During 1971, the gross (cash) income ratio reached 6.36 percent, a marked stepup of 27 basis points above the 1970 rate. New loans moving into the portfolio carried rates averaging about 8.65 percent while loan repayments, which ran very large in 1971, generally involved lower rates. New loans, however, represented only a small fraction of the total portfolio—less than 10 percent—and the income from these loans was heavily outweighed by the portfolio of older loans. Total operating costs averaged 0.32 percent of mortgage holdings in 1971, the lowest ratio yet recorded. The total cost ratio in particular reflects the weight of some of the largest portfolios. A more representative measure of individual company cost experience is the median rate or the average of company rates, both of which were just under 0.45 percent in 1971.

With respect to the components of total costs, originating fees and premiums (paid in order to acquire loans) have been a relatively minor item in recent years. There usually is not a separately stated originating fee when loans are generated by correspondents who retain the servicing on these loans. Servicing fees, paid to mortgage correspondents on a continuing basis over the life of the loans, have declined in recent years as mortgages on income-producing properties have increased as a proportion of mortgage portfolios. These loans, although varying widely in size, typically require service fees that represent a smaller percentage of the loan amount than that needed for home loans.

As noted earlier, repayments of mortgages turned sharply upward in

1971 and for the surveyed companies the average turnover period of the mortgage account (the period required to liquidate outstanding loans at the prevailing annual rate of repayments) shortened dramatically, to 13.2 years from the record long turnover period of 17 years in 1970. The 1971 contraction in turnover periods was the first since 1963.

Mortgage Delinquency and Foreclosure Experience

Data on mortgage loan delinquencies and foreclosures, together with the relevant portfolio holdings, have been reported to the LIAA research staff by a representative sample of life insurance companies since 1954. These data, which were reported at quarterly dates through 1971 and semiannually beginning in 1972, permit the computation of delinquency and foreclosure rates on two bases, dollar amounts and numbers of loans. The distinction has been of particular pertinence in recent years when a limited number of delinquent loans on large income properties may produce widely different rates and divergent directions of change as between rates based on numbers and those based on amount of loans. Rates by number of loans exceeded those by dollar amounts until 1964 when the pattern was reversed. At recent dates, rates based on amounts have often been noticeably above those by number. Only

Table 16

MORTGAGE DELINQUENCY RATES OF REPORTING LIFE INSURANCE COMPANIES

End of Period	*Nonfarm Mortgages* FHA	VA	Canadian NHA	Conventional	Total Nonfarm	Total Farm	Total Mortgages
1955	.62%	.83%	.51%	.44%	.58%	.48%	.57%
1960	.82	.98	.42	.40	.61	.21	.58
1965	1.79	1.29	.83	.58	.93	.28	.87
1966	1.47	1.15	.54	.64	.86	.25	.81
1967	1.41	.98	.35	.61	.80	.60	.78
1968	.91	.88	.32	.53	.63	.57	.63
1969	.98	.87	.39	.44	.57	.36	.55
1970	1.34	.95	.84	.74	.85	1.51	.91
1971 June	1.45	.82	.89	.86	.95	2.44	1.07
December	1.65	1.00	.94	.74	.90	1.59	.96
1972 June	1.54	.78	.97	.90	.98	2.17	1.08

Note: Rates represent the ratio of delinquent loans to total loans held in the specified category. Delinquent loans include loans in process of foreclosure as well as those with two or more monthly interest payments past due in the case of nonfarm mortgages and, for farm mortgages, those with interest in arrears more than 90 days. Reporting companies have accounted for 75-85 percent of the assets of U.S. life insurance companies.

rates based on dollar amounts are given in Table 16 and, unless otherwise noted, it is these rates that are discussed below.

Over the nineteen years covered by the surveys, total mortgage delinquencies of reporting companies fluctuated within a range of 0.45-1.08 percent of the dollar amount of loans outstanding—the highest rate was reached at the latest reporting date in mid-1972. Following a generally downward trend in the last half of the 1960's, the total delinquency rate turned up sharply in 1970, from 0.55 percent at year-end 1969 to 0.91 percent one year later. The rate reached 1 percent or more during 1971, dipping below that level at the end of the year. At mid-1972, however, delinquencies reached the series high. (Based on number of loans, the total delinquency rate came to 0.75 percent in June, down from 0.81 percent at year-end 1971 and compared with its high of 0.97 percent at the end of 1963.)

The rise in delinquency rates was shown by both farm and nonfarm loans and was particularly steep for farm loans. The farm loan rate climbed to over 2 percent while nonfarm loans held below the 1 percent level. The rise in the nonfarm rate was initially associated with the 1970 recession and currently reflects difficulties with rental properties, primarily apartment buildings. In recent years, the rising delinquency rates have also been affected, although to only a minor extent, by the experience with loans made under the $2 Billion Urban Investment Program of the life insurance business (described in the *1969 Economic and Investment Report*). In keeping with the goals of the Program to make funds available for the benefit of those in the inner city, these loans usually involved higher risks than those made under the regular lending standards of the companies.

Although all reporting companies provide delinquency data by type of financing, not all are able to provide further details by type of property underlying nonfarm mortgages, i.e., 1-4 family, multifamily, and nonresidential properties. The available detail at the end of June indicated a delinquency rate of 1.51 percent for multifamily properties but much lower rates for 1-4 family loans (0.87 percent) and for nonresidential properties (0.81 percent). It should be noted that for purposes of this comparison the available detail by property type produced a slightly higher nonfarm delinquency rate (1.01 percent at the end of June) than that shown by all reporting companies (0.98 percent) in Table 16.

Loans in process of foreclosure, which are included with delinquent loans, averaged 0.22 percent of total loans outstanding at the end of June, equaling the previous high reached in 1965. Foreclosure rates have inched up in the last three years following a generally downward

trend in the late 1960's. The current level is in sharp contrast with the 1950's when the dollar amount of foreclosure cases averaged around 0.05 percent of loans held. Based on numbers of loans, the overall in-foreclosure rate at mid-1972, at 0.11 percent, was only half that based on dollar amounts, since the latter reflected the above-average size of seriously delinquent farm loans as well as nonfarm mortgages on income properties.

Survey of Nonfarm Conventional Mortgage Loans Foreclosed

Surveys of completed foreclosure actions arising from nonfarm conventional mortgages have been conducted by the LIAA research staff for the seven years 1965-71. Reporting companies, which account for over 80 percent of assets of all U.S. life insurance companies, classify loans foreclosed in each reporting period by the year in which the loan was authorized by the finance or investment committee of the company and by detailed property type. Companies also provide, to the extent possible, comparably detailed property classifications of mortgage holdings, permitting the calculation of foreclosure rates for specific property classes. Illustrations of some of the detailed property classifications are shown in Table 17. The mortgage holdings shown for each property classification represent a minimum amount since not all reporting companies maintain a breakdown of their conventional mortgage portfolios comparable with the detailed classifications possible for the limited number of foreclosed loans.

In all years surveyed, a substantial proportion of foreclosed loans represented loans authorized within the latest five years. Of loans foreclosed in 1971, 43 percent of the number and 64 percent of the dollar amount were from loans authorized in the latest five years (i.e., 1967-71). These ratios turned up noticeably from those in 1970 (39 percent and 45 percent, respectively), thus reversing the downward movement of the preceding three years. In each year 1968 through 1970, the proportion of foreclosures arising from authorizations of the latest five years had declined from the high levels of 1965-67 (when the proportions ran about 70 percent of the dollar amount foreclosed). The downward drift apparently was associated with the comparatively limited amounts of mortgages closed in the tight money periods of the late 1960's when cash flow for market investments declined and the time period between commitment and disbursement dates lengthened.

As shown in Table 18, conventional loans foreclosed have not loomed large in any of the years surveyed. In total, foreclosure rates based on

Table 17

NONFARM CONVENTIONAL MORTGAGE LOANS FORECLOSED DURING 1971 RELATED TO HOLDINGS, SELECTED PROPERTY TYPES REPORTING LIFE INSURANCE COMPANIES

(Dollar amounts in millions)

	Foreclosed Loans		*Holdings December 31, 1970*			*Annual Rate of Foreclosure*	
Property Type	*Number*	*Amount*	*Number*	*Amount*	*No. of Companies Having Holdings*	*By #*	*By Amount*
1-4 Family	157	$ 2.9	677,403	$ 9,092	63	.02%	.03%
Apartment	37	24.0	28,225	12,902	64	.13	.19
Commercial	41	18.6	32,225	15,722	54	.13	.12
Hotel and motel	8	6.9	1,756	1,714	44	.46	.40
Retail—fewer than 5 stores	7	0.5	3,078	514	26	.23	.09
Shopping center	—	—	2,370	2,735	37	—	—
Department store	1	3.3	396	224	17	.25	1.47
Office building	12	3.7	6,268	5,696	42	.19	.06
Medical office building	1	0.5	2,149	504	38	.05	.10
Parking garage	—	—	195	108	21	—	—
Commercial warehouse	—	—	3,260	824	38	—	—
Truck terminal	—	—	177	48	20	—	—
Industrial	4	0.7	6,573	1,704	43	.06	.04
Institutional	4	2.7	2,107	1,045	43	.19	.26
Land loans	10	9.0	863	519	26	1.16	1.72
Total	258	$58.6	760,856	$42,924	67	.03	.14

"Total" holdings are those of all reporting companies, but holdings of component property types are not available from all companies and do not add to the "Total." In addition, only selected property types are shown under the "commercial" classification. Foreclosures in each property type are only those for which corresponding holdings data were available and thus differ from the more inclusive foreclosure totals in Table 18.

dollar values have varied little around the 0.14 percent level, and the rates by number of loans have held at 0.03 percent for the latest three years, having drifted down from 0.07 percent in 1965-66.

TABLE 18

NONFARM CONVENTIONAL MORTGAGE LOANS FORECLOSED MAJOR PROPERTY TYPES, ANNUALLY, 1965-1971

Property Type	*1965*	*1966*	*1967*	*1968*	*1969*	*1970*	*1971*
1-4 Family							
Number	504	520	396	234	128	156	158
Amount ($000)	7,937	8,340	7,048	4,311	2,265	2,761	2,903
Rate of foreclosure:							
By number (%)	.06	.06	.05	.03	.02	.02	.02
By amount (%)	.08	.08	.07	.04	.02	.03	.03
Apartments							
Number	48	70	38	29	36	29	37
Amount ($000)	20,875	25,274	23,933	13,446	15,101	30,166	23,956
Rate of foreclosure:							
By number (%)	.21	.27	.15	.10	.13	.10	.13
By amount (%)	.39	.36	.31	.14	.15	.27	.19
Nonresidential							
Number	44	46	64	86	53	49	63
Amount ($000)	9,997	11,753	17,916	32,146	31,010	24,060	31,745
Rate of foreclosure:							
By number (%)	.11	.11	.14	.19	.11	.10	.14
By amount (%)	.08	.09	.12	.20	.18	.13	.15
Total							
Number	599	640	498	349	217	234	258
Amount ($000)	38,864	45,521	48,897	49,903	48,376	56,987	58,604
Rate of foreclosure:							
By number (%)	.07	.07	.06	.04	.03	.03	.03
By amount (%)	.14	.15	.14	.14	.13	.14	.14

Foreclosure rates reflect the relationship of total loans foreclosed during the year to total holdings at the beginning of the year. The total line includes a few loans in 1965 and 1966 for which property type was not reported. Reporting companies account for over 80 percent of assets of U.S. life insurance companies.

APPENDIX

Outside Research Studies Supported by the Life Insurance Association of America

I. *A Study of Saving in the United States,* Raymond W. Goldsmith (published in three volumes by the Princeton University Press, 1955 and 1956).

II. The Study of Capital Formation and Financing (conducted by the National Bureau of Economic Research under Simon Kuznets)

A. Monographs (Princeton University Press)

1. *Capital Formation in Residential Real Estate: Trends and Prospects,* Leo Grebler, David M. Blank and Louis Winnick, 1956.
2. *Capital in Agriculture: Its Formation and Financing Since 1870,* Alvin S. Tostlebe, 1957.
3. *Financial Intermediaries in the American Economy Since 1900,* Raymond W. Goldsmith, 1958.
4. *Capital in Transportation, Communications, and Public Utilities: Its Formation and Financing,* Melville J. Ulmer, 1960.
5. *Capital in Manufacturing and Mining: Its Formation and Financing,* Daniel Creamer, Sergei Dobrovolsky, and Israel Borenstein, 1960.
6. *Trends in Government Financing,* Morris A. Copeland, 1961.
7. *Capital in the American Economy: Its Formation and Financing,* Simon Kuznets, 1961.

B. Papers

1. *The Role of Federal Credit Aids in Residential Construction,* Leo Grebler, Occasional Paper 39, 1953.
2. *Capital and Output Trends in Manufacturing Industries, 1880-1948,* Daniel Creamer, Occasional Paper 41, 1954.
3. *The Share of Financial Intermediaries in National Wealth and National Assets, 1900-1949,* Raymond W. Goldsmith, Occasional Paper 42, 1954.

4. *Trends and Cycles in Capital Formation by United States Railroads, 1870-1950,* Melville J. Ulmer, Occasional Paper 43, 1954.
5. *The Growth of Physical Capital in Agriculture, 1870-1950,* Alvin S. Tostlebe, Occasional Paper 44, 1954.
6. *Capital and Output Trends in Mining Industries, 1870-1948,* Israel Borenstein, Occasional Paper 45, 1954.
7. *The Volume of Residential Construction, 1889-1950,* David M. Blank, Technical Paper 9, 1954.

III. The Study of the Postwar Capital Markets (conducted by the National Bureau of Economic Research)

A. Monographs (Princeton University Press except as noted)

1. *Postwar Market for State and Local Government Securities,* Roland I. Robinson, 1960.
2. *The Postwar Residential Mortgage Market,* Saul B. Klaman, 1961.
3. *The National Wealth of the United States in the Postwar Period,* Raymond W. Goldsmith, 1962.
4. *Studies in the National Balance Sheet of the United States,* Volume I: Raymond W. Goldsmith and Robert E. Lipsey, Volume II: Raymond W. Goldsmith, Robert E. Lipsey and Morris Mendelson, 1963.
5. *The Flow of Capital Funds in the Postwar Economy,* Raymond W. Goldsmith, 1965 (Columbia University Press).

B. Papers

1. *The Volume of Mortgage Debt in the Postwar Decade,* Saul B. Klaman, Technical Paper 13, 1958.
2. *The Postwar Rise of Mortgage Companies,* Saul B. Klaman, Occasional Paper 60, 1959.
3. *United States Savings Bond Program in the Postwar Period,* George Hanc, Occasional Paper 81, 1962.
4. *The Measurement of Corporate Sources and Uses of Funds,* Eli Shapiro and David Meiselman, Technical Paper 18, 1964.

IV. Corporate Bond Project (Financial Research Program, conducted by the National Bureau of Economic Research)

A. Monographs (Princeton University Press except as noted)

1. *The Volume of Corporate Bond Financing Since 1900,* W. Braddock Hickman, 1953.
2. *Corporate Bond Quality and Investor Experience,* W. Braddock Hickman, 1958.
3. *Statistical Measures of Corporate Bond Financing Since 1900,* W. Braddock Hickman, assisted by Elizabeth T. Simpson, 1960.
4. *Trends in Corporate Bond Quality,* Thomas R. Atkinson, assisted by Elizabeth T. Simpson, 1967 (Columbia University Press).

B. Occasional Papers

1. *Trends and Cycles in Corporate Bond Financing,* W. Braddock Hickman, No. 37, 1952.
2. *Corporate Bonds: Quality and Investment Performance,* W. Braddock Hickman, No. 59, 1957.

V. Studies in Agricultural Finance (Financial Research Program, conducted by the National Bureau of Economic Research under Raymond J. Saulnier)

A. Monographs (Princeton University Press)

1. *Mortgage Lending Experience in Agriculture,* Lawrence A. Jones and David Durand, 1954.
2. *Patterns of Farm Financial Structure,* Donald C. Horton, 1957.

B. Occasional Papers

1. *Costs and Returns on Farm Mortgage Lending by Life Insurance Companies, 1945-1947,* Raymond J. Saulnier, No. 30, 1949.
2. *Agricultural Equipment Financing,* H. Diesslin, No. 50, 1955.

VI. Studies in Urban Mortgage Finance (Financial Research Program, conducted by the National Bureau of Economic Research under Raymond J. Saulnier)

A. Monographs (for the National Bureau of Economic Research by H. Wolff Book Manufacturing Co., Inc., except as noted)

1. *Urban Mortgage Lending by Life Insurance Companies,* Raymond J. Saulnier, 1950.
2. *The Impact of Government on Real Estate Finance in the United States,* Miles L. Colean, 1950.
3. *Urban Real Estate Markets: Characteristics and Financing,* Ernest M. Fisher, 1951.
4. *History and Policies of the Home Owners' Loan Corporation,* C. Lowell Harriss, 1951.
5. *Commercial Bank Activities in Urban Mortgage Financing,* Carl F. Behrens, 1952.
6. *Urban Mortgage Lending: Comparative Markets and Experience,* J. E. Morton, 1956 (Princeton University Press).

VII. The Study of Interest Rates (conducted by the National Bureau of Economic Research under Jack M. Guttentag)

A. Monographs (Columbia University Press)

1. *The Behavior of Interest Rates: A Progress Report,* Joseph W. Conard, 1966.
2. *Yields on Corporate Debt Directly Placed,* Avery B. Cohan, 1967.
3. *Essays on Interest Rates,* Volume 1, edited by Jack M. Guttentag and Phillip Cagan, 1969. Contains the following essays:
   a. "The Influence of Interest Rates on the Duration of Business Cycles," Phillip Cagan.
   b. "The Behavior of Residential Mortgage Yields Since 1951," Jack M. Guttentag.
   c. "The Structure of the Mortgage Market for Income-Property Mortgage Loans," Royal Shipp.

d. "A Study of Liquidity Premiums on Federal and Municipal Government Securities," Phillip Cagan.
e. "The Yield Spread Between New and Seasoned Corporate Bonds, 1952-63," Joseph W. Conard and Mark W. Frankena.
f. "Interest Rates and Bank Reserves—A Reinterpretation of the Statistical Association," Phillip Cagan.

4. *New Series on Home Mortgage Yields Since 1951,* Jack M. Guttentag and Morris Beck, 1970.
5. *Essays on Interest Rates,* Volume 2, edited by Jack M. Guttentag, 1971. Contains three essays first published as Occasional Papers (see below) and the following essays:
   a. "The Influence of Call Provisions and Coupon Rates on the Yields of Corporate Bonds," Mark W. Frankena.
   b. "The Geographic Structure of Residential Mortgage Yields," E. Bruce Fredrikson.
   c. "The Ex Ante Quality of Direct Placements, 1951-1961," Avery B. Cohan.
   d. "Expectations at the Short End of the Yield Curve: An Application of Macaulay's Test," Thomas Sargent.
   e. "The Expectations Component of the Term Structure," Stanley Diller.
6. *The Channels of Monetary Effects on Interest Rates,* Phillip Cagan, 1972.

B. Occasional Papers (Columbia University Press)
   1. *The Cyclical Behavior of the Term Structure of Interest Rates,* Reuben A. Kessel, No. 91, 1965.
   2. *Changes in the Cyclical Behavior of Interest Rates,* Phillip Cagan, No. 100, 1966.
   3. *The Seasonal Variation of Interest Rates,* Stanley Diller, No. 108, 1969.

VIII. Tax Policies for Economic Growth (conducted by the National Bureau of Economic Research under Norman Ture and Hal B. Lary)

A. Monographs (Columbia University Press)
   1. *Accelerated Depreciation in the United States, 1954-60,* Norman B. Ture, 1967.

2. *Executive Compensation in Large Industrial Corporations,* Wilbur G. Lewellen, 1968.
3. *Tax Changes and Modernization in the Textile Industry,* Thomas M. Stanback, Jr., 1969.

IX. Other Published Studies

A. *Economic Aspects of Atomic Power,* Samuel Schurr and Jacob Marschak, 1950 (Princeton University Press).

B. *Investment Timing: The Formula Plan Approach,* C. Sidney Cottle and W. Tate Whitman, 1953 (McGraw-Hill).

C. *The Mutual Mortgage Insurance Fund,* Ernest M. Fisher and Chester Rapkin, 1956 (Columbia University Press).

D. *Corporate Earning Power and Market Valuation, 1935-1955,* C. Sidney Cottle and W. Tate Whitman, 1959 (Duke University Press).

E. *The Secondary Mortgage Market,* Oliver Jones and Leo Grebler, 1961 (University of California).

F. *The Value of the Call Privilege,* Arleigh Hess and Willis Winn, 1962 (University of Pennsylvania).

G. *Valuation of Securities Holdings of Life Insurance Companies,* Harold G. Fraine, 1962 (Richard D. Irwin, Inc.).

H. *The Effect of Pension Plans on Aggregate Saving: Evidence from a Sample Survey,* Phillip Cagan, NBER Occasional Paper 95, 1965 (Columbia University Press).

I. *Private Pension Funds: Projected Growth,* Daniel M. Holland, NBER Occasional Paper 97, 1966 (Columbia University Press).

J. *Inflation and the Price Indexes,* Jules Backman and Martin R. Gainsbrugh, 1966 (National Industrial Conference Board).

K. *Pension Funds of Multiemployer Industrial Groups, Unions, and Nonprofit Organizations,* H. Robert Bartell and Elizabeth T. Simpson, NBER Occasional Paper 105, 1968 (Columbia University Press).

L. *Economic Aspects of Pensions: A Summary Report,* Roger F. Murray, 1968 (Columbia University Press for NBER).

M. *The Economics of Interest Rate Ceilings,* J. Robert Lindsay, The Bulletin of the Institute of Finance, December 1970 (New York University).

N. *Inner-City Housing and Private Enterprise,* Frederick E. Case, 1972 (Praeger Publishers for Graduate School of Management, University of California, Los Angeles).

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