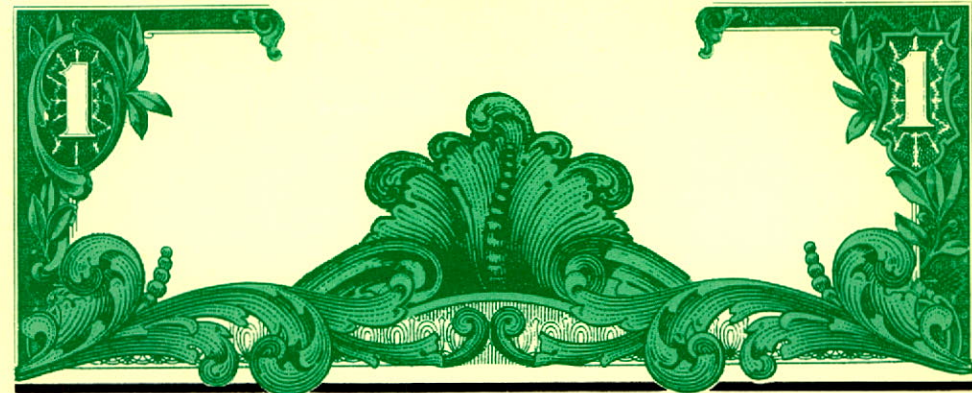
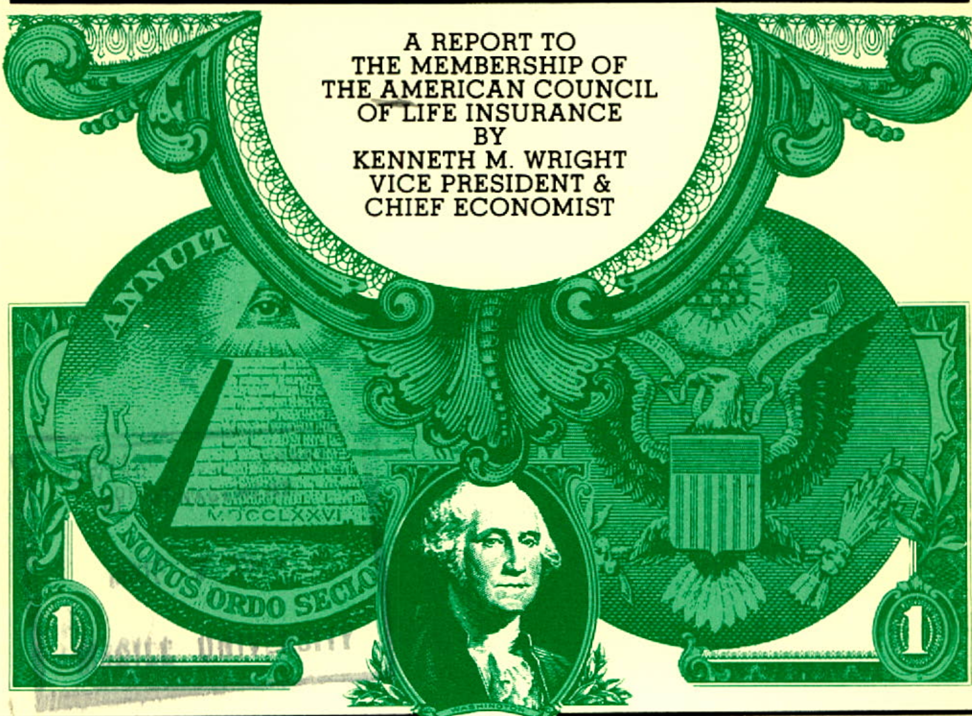


ECONOMIC & INVESTMENT REPORT 1978



A REPORT TO
THE MEMBERSHIP OF
THE AMERICAN COUNCIL
OF LIFE INSURANCE
BY
KENNETH M. WRIGHT
VICE PRESIDENT &
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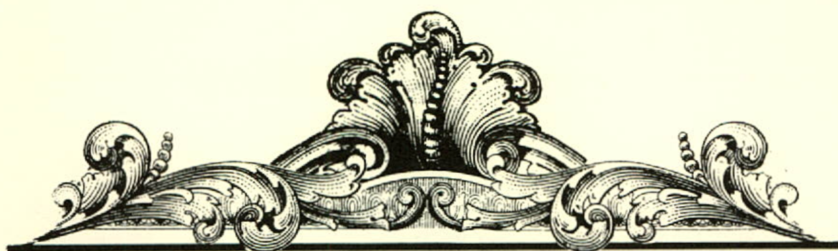

ECONOMIC & INVESTMENT REPORT 1978

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PREFACE

With total assets approaching $390 billion, the life insurance business represents a major component of the U.S. financial system. Developments in our national economy directly affect the operations and performance of the life insurance business, perhaps most immediately the investment side of the companies. In this setting, the life insurance business has long maintained an economic research function within the American Council of Life Insurance to study the interaction among life company investments, the U. S. financial markets, and the national economy. This booklet is designed to report to member life insurance companies and other interested parties on significant economic and financial developments of the past year and the latest life insurance investment patterns.

In the past, it has been traditional to include in the yearly **Economic and Investment Report** a section dealing with the economic and financial outlook for the year ahead, including staff estimates of the sources and uses of capital market funds. For 1979, the economics department forecast will be developed in a separate report to be distributed to member companies in early February.

The present **Report** reflects the efforts of several members of the economics department staff. In particular, the section describing the economic research program of the Council was prepared by Dr. George A. Bishop; the discussion of economic and financial developments in 1978 was developed by Dr. Thomas R. Robinson; and the section dealing with the investment operations of U. S. life insurance companies was the primary responsibility of Elizabeth H. Bancala.

Kenneth M. Wright
December 1978

CONTENTS

PREFACE

CURRENT ACTIVITIES OF THE ECONOMIC RESEARCH PROGRAM — 1

- Outside Research Financed by the Council — 1
- Study of Anti-Inflation Policies — 3
- Staff Activities of the Economics Department — 3

ECONOMIC AND FINANCIAL DEVELOPMENTS IN 1978 — 7

- A Mixed Record of Economic Performance — 7
- Sharp Climb in Interest Rates — 11
- Financing the Economy's Needs — 15

INVESTMENT OPERATIONS OF U. S. LIFE INSURANCE COMPANIES IN 1978 — 25

- Major Investment Outlets — 25
- Measures of Investment Performance — 32
- Cash Flow for Investment — 35
- Asset Growth — 36

APPENDIX TABLES — 38

ECONOMIC RESEARCH STUDIES SUPPORTED BY THE LIFE INSURANCE BUSINESS — 46

CURRENT ACTIVITIES OF THE ECONOMIC RESEARCH PROGRAM

For over three decades the life insurance business has demonstrated its interest in fundamental research to improve knowledge about the U. S. economic and financial system. Through a continuing program of economic and investment research which began in 1946, the life insurance business has financed a long series of major research studies by scholars at leading universities and research organizations and also has developed extensive research and analysis by staff professionals in the economics department of the American Council of Life Insurance. The main objectives of this two-part program have been to assist the investment side of the life insurance business and to contribute to the fund of basic economic knowledge and the understanding of financial markets.

Since the inception of the economic research program, grants exceeding $4 million have been made for research in such areas as savings, capital markets, pensions, housing, interest rates, and inflation. These studies are widely regarded by scholars and public officials as having been among the most important works published in these vital areas of financial research. A complete list is provided in the Appendix of the studies published to date through the sponsorship of the economic research program funded by the life insurance business.

Outside Economic Research Financed by the Council

In 1978, the fourth and final volume was published from the project, "Demand and Supply Conditions in the U.S. Capital Markets, 1975-1985." The new volume by Dr. Arnold Sametz of New York University, *Prospects for Capital Formation and Capital Markets,* was distributed to member companies in the spring. In general, Dr. Sametz sees little likelihood of a serious capital shortage developing in the United States by 1985. New financial avenues, however, will be needed to efficiently channel funds from savers to borrowers, in particular from households to business. Three earlier volumes are listed in the Appendix to this report. These volumes contain a large number of special studies of various segments of the financial markets as well as overviews of their operation.

Professors Phillip Cagan and Robert Lipsey completed a book, published in November, entitled *The Financial Effects of Inflation.* This book brings together the findings of a series of studies conducted by the National Bureau of Economic Research under the

auspices of the Council on "The Effects of Inflation on Financial Markets" and surveys the state of economic knowledge in this field. The Cagan-Lipsey analysis shows that experience with inflation in the past decade has shattered many presuppositions about the behavior of the economy and financial markets. Market adjustments often magnify, rather than moderate, inflationary disturbances. In consequence, growing uncertainties in a period of high inflation have made long-term financing more difficult in the 1970s than in earlier decades. Financial practices seem bound to evolve through further attempts to provide an adequate "real" rate of return and to adjust to the uncertainties of inflation. Accounting practices are bound to change. Experiments with variable rate mortgages are likely to continue. Securities linked in value to a price index have not yet been introduced in the United States, although indexing is a widespread feature of government retirement programs and many wage negotiations. The authors conclude that "additions to the present halfway measures to deal with the uncertainty of inflation await the financial innovations that current and future incentives for change can be expected to bring."

A research study on "Capital Investment and Savings Requirements" was begun in 1976 under the direction of Dr. George M. von Furstenberg, formerly with Indiana University and now with the International Monetary Fund. The study deals essentially with an analysis of the determinants of saving and the role of capital in economic growth. It is progressing on schedule and more than half of the commissioned research has been completed. The remaining research will be completed in 1979 and present plans call for publication of research results in three volumes. The first will deal with the impact of social security on private saving in the United States and other countries. The second volume will examine the effect of government on capital formation through monetary and fiscal policies, tax incentives, regulatory measures, and direct government capital formation. The third will deal with the contribution of capital to economic growth and the efficiency with which capital is allocated by industry and function. Among the authors contributing to the three volumes are James Tobin (Yale), David Bradford (Princeton), Paul Wachtel (New York University), Dale Jorgenson (Harvard), and Patric Hendershott (Purdue).

This year the Council Board of Directors authorized a new three-year study to be undertaken by the National Bureau of Economic Research and directed by Dr. Benjamin M. Friedman of Harvard University. The study will deal with the changing roles of corporate debt and equity financing in U.S. capital markets in light of the

major economic events of the last 20 years. These events include the rising rate of inflation, the growing role of government and government agency debt, and the changing nature of investment risks. The project will involve the use of conferences to expose the interim research to other researchers and to practitioners in the investment field.

Study of Anti-Inflation Policies

In January of 1978, the Executive Committee of the Council Board directed that a comprehensive study be undertaken of policies to combat inflation. A Subcommittee of the Economic Policy Committee was established under the chairmanship of Mr. J. Edwin Matz, Chief Executive Officer of John Hancock, to provide guidance and direction for this study. Serving as project director is Dr. Clarence C. Walton of Columbia University, former president of Catholic University. A conference approach was adopted in order to draw on a wide range of consultants and leaders from business, labor, government, and the academic world to arrive at a realistic set of recommendations in a relatively short space of time. In the spring, the Subcommittee was divided into four Task Forces, each assigned to deal with a different aspect of the inflation problem. To assist each Task Force, two consultants were selected to prepare background papers and take part in discussions at workshops which were held in September and October. Following these workshops, each Task Force prepared preliminary conclusions and recommendations for the consideration of the Subcommittee. During November and December, preparations were made for a large conference of about 125 people to be held at the Williamsburg (Virginia) Conference Center, February 21-24, 1979. That conference and the publication of its proceedings and conclusions will be the final stage in this project. The conclusions will provide a solid basis for recommendations on anti-inflation policies to the Congress and the Administration. They will also be used as the basis for a public information program. Given its special concerns in this area, the Council's Board believes that the life insurance business should take a position of leadership in dealing with this primary economic problem facing the country.

Staff Activities of the Economics Department

Collection and analysis of data on the investment operations of the life insurance business represent a major continuing function of the economics department of the Council. 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, semiannual 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 of directly placed corporate bonds, quarterly data on interest rates and other characteristics of income-property mortgage loans, annual data on the quality of bond and preferred stock portfolios, and annual data on gross yields of new investments are tabulated by the economic research staff. Some of the information developed in these studies is presented in other sections of this report.

Following up previous work on measures of investment return, a Task Force under the Subcommittee on Economic Research has been working on adjusted measures of portfolio rates of investment income. The objective is to develop measures that would serve the need for inter-company comparisons of investment results better than the rate of net investment income as currently defined for annual statements filed with state insurance departments. The Task Force and Council staff developed a questionnaire for this purpose, and in September the questionnaire, in a preliminary form, was sent to a sample of companies. In December, a report on these responses was developed, and the Task Force met again to review the questionnaire. A report on the first year's survey was sent to participants at the end of December. A continuing annual survey is planned on portfolio rates of return.

A major function of the economics department is its work with various policy making committees of the Council. For example, the economics department provides staff support to the Economic Policy Committee and its Subcommittee on Fiscal and Monetary Policy and the Subcommittee on Economic Research. On behalf of the life insurance business, the Economic Policy Committee, with the support of the economics staff, prepares testimony each year for submission to the Joint Economic Committee of the Congress in its hearings on the Economic Report of the President. In addition, the Economic Policy Committee conveys the viewpoints of the life insurance business to officials in Washington through periodic meetings with the U. S. Treasury Department, the Federal Reserve Board, and various Administration officials involved in planning economic policy.

The economics department also provides staff support to the Subcommittee on Investment Aspects of Valuation Problems. The department produces an annual report on the operations of the Mandatory Securities Valuation Reserve (MSVR) and from time to time reviews the principles and rules of valuation of securities in life company portfolios. In the first half of the 1970s, the MSVR proved inadequate for the losses experienced by life insurance companies. In 1975, changes in the MSVR rules provided for a doubling of the annual formula additions to the bond and preferred stock component of the MSVR under certain conditions and allowed companies to apply capital gains in the years 1975 through 1977 to the restoration of surplus incursions brought about by common stock losses in 1973 and 1974. The recovery of the stock market by the end of 1976 enabled nearly all of the companies which had exhausted their common stock reserve in 1974 to completely restore the previous incursions of surplus and to add to their common stock reserve once more.

The decline of stock market prices in 1977, however, again used up a substantial portion of the common stock component of the MSVR of life companies. In May 1977, the Council submitted to the NAIC Valuation of Securities (EX3) Subcommittee a proposal for a permanent provision in the MSVR rules to allow capital gains on common stocks to be used initially to restore surplus incursions resulting from common stock losses. In December 1977, a much more limited provision was accepted at the annual NAIC meeting allowing for an extension of the time for restoration of only the 1973-74 surplus incursions. In 1978, however, the NAIC agreed to adopt the Council's full proposal for the permanent provision stated above.

Activities of the Financial Section of the Council and the operation of the annual Life Officers Investment Seminar also receive staff support from the economics department. The Financial Section holds an annual meeting each fall and a spring meeting each April in conjunction with the Council's regional meetings. These sessions provide a forum for discussion of financial topics by investment officers. The Life Officers Investment Seminar is held at Rockford College in Illinois for two weeks each June.

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, speaking to outside groups, describing current investment attitudes and policies, and reviewing research manuscripts by academic authors working in the investment field. In a broad sense, the

economics department serves as a spokesman on the investment aspects of the business in an effort to improve public understanding of the investment policies and practices of life insurance companies.

As a guide to investment strategy and the future course of interest rates, the economics 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. Staff analysis of the sources and uses of capital funds, including forecasts for 1979, is currently in preparation and will be distributed to member companies upon completion early in 1979.

ECONOMIC AND FINANCIAL DEVELOPMENTS IN 1978

A Mixed Record of Economic Performance

Economic activity in 1978 extended its advance into a fourth year of expansion, producing one of the longest peacetime upswings of the past generation. Employment rose rapidly, pushing the unemployment rate down to a four-year low of less than 6 percent. Business capital spending showed new vigor after a lackluster performance in earlier years of the recovery, and housing starts were sustained at high levels close to 2 million units. Production schedules were expeditiously adjusted to sales patterns and inventories remained in good balance. Indeed, many of the economic imbalances and excesses that have usually developed by this stage of the business cycle were notably absent.

These generally positive developments, however, masked a number of fundamental and serious problems. The dollar was buffeted about in foreign exchange markets over much of the year as the international position of the United States remained weak. Inflation accelerated sharply, and inflationary expectations became more firmly embedded in consumer buying patterns and saving behavior. Output growth proceeded in fitful fashion, and financial markets were extremely volatile, approaching near-crisis conditions at certain times. Interest rates rose to levels not witnessed since the last peak in rates in 1974, although these levels were not associated with significant reductions in credit availability.

As the year progressed, the emphasis of government economic policies shifted from reducing unemployment toward combatting inflation as the number one priority. The Federal Reserve moved to tighten monetary policy in a series of steps over the year, as described more fully below. The Federal budget deficit, close to $49 billion in fiscal 1978, was inordinately large for this stage of the business cycle, but the projected deficit for fiscal 1979 was trimmed to under $40 billion. Late in the year, the Administration's search for a workable anti-inflation strategy led to the adoption of voluntary wage and price standards, accompanied by a series of measures to defend the international standing of the dollar.

Dismal inflation record. Prices rose at alarming rates in 1978. On a year-over-year basis, the GNP deflator, the broadest measure of prices, advanced sharply, climbing about 7¼ percent in 1978, compared with just under 6 percent in 1977 and 5¼ percent in 1976 (see Table 1). The speed-up in inflation was also pronounced for consumer and producer prices. The consumer price index marched

Table 1

MEASURES OF INFLATION, 1975-1978

(Seasonally adjusted annual rates)

		GNP Deflator	Consumer Price Index[1]	Producer Price Index[2]
1977	I	6.0%	8.3%	9.6%
	II	7.7	8.8	8.7
	III	5.1	5.0	3.1
	IV	5.5	4.7	6.1
1978	I	7.2	7.8	8.7
	II	11.0	10.9	11.3
	III	6.9p	8.5e	5.9e
	IV	7.5e	8.6e	9.1e
Calendar years				
1975		9.6	9.1	10.8
1976		5.2	5.8	4.2
1977		5.9	6.5	6.0
1978		7.3e	7.7e	7.7e

p- Preliminary. e- Estimate.

1. All items, consumer price index.
2. Total finished goods producer price index.

upward by around 7¾ percent in 1978 as opposed to 6½ percent in 1977 and 5¾ percent in 1976. The producer finished goods price index increased by about 7¾ percent in 1978, markedly above the 6 percent rate in 1977 and the 4¼ percent pace in 1976.

The abrupt upward tilt to prices developed early in the year when an increase in food prices, led by an enormous run-up in meat prices, ignited inflation at both the consumer and producer levels. In the second quarter of 1978 these prices rose at double-digit rates, more than two times the pace of the last half of 1977. Overall, the GNP deflator increased by an average of over 9 percent in the first half of 1978.

Prices slowed during the summer months as expected, with the major improvement centering in food prices. Outside the food sector, prices continued to climb at rapid rates. In late summer, however, food prices resumed their upward thrust and again began to push the overall producer price index briskly higher through the end of the year. At retail, food prices likewise accelerated, although they were in general better behaved than at the producer level. On the other hand, nonfood commodity prices began to surge and prices of services for consumers sustained their rapid advance.

Overall, the price picture at year-end looked particularly dismal with inflation running ahead at a fast clip and the prospects for the coming months not markedly better. OPEC in December

announced a larger-than-expected stepwise oil price increase of about 14½ percent for 1979, and Agriculture Department forecasts suggested that food prices could climb in the double-digit range. Increases in payroll taxes and in the minimum wage in January 1979 were expected to contribute materially to labor costs, and the effects of the sizable depreciation in the dollar in 1978 would continue to filter through the system. Moreover, by the end of 1978, margins of unused capital and labor resources were thin enough that modest increases in demand were likely to intensify wage and price pressures. And finally, the deterioration of the price picture in 1978 was likely to have unwelcome side effects on wage costs in 1979 through automatic cost-of-living adjustments (COLAs) that cover 8½ million workers under major collective bargaining contracts.

It was against the backdrop of bleak inflation numbers and the prospects for even worse reports in the year ahead that the Administration eventually acted to shift policy emphasis toward fighting inflation as the nation's number one ill. Accordingly, President Carter on October 24 ushered in a new anti-inflation program, including voluntary wage and price guidelines. In addition, on November 1, the Treasury and the Federal Reserve jointly announced a set of actions to tighten financial markets and bolster a sagging dollar in foreign exchange markets. The resolve of policymakers in the inflation battle will be watched carefully in the months ahead, particularly since some easing in the Administration's wage and price guidelines had already been announced before year-end and the Federal Reserve had taken deliberate steps to offset some of the stronger policy moves it had taken in November.

Slower output growth. Gross national product in 1978, after adjusting for price changes, rose by about 3¾ percent on a year-over-year basis. This increase was less than the 5 percent pace in 1977 and well below the 5¾ percent advance in 1976, the first full year of the current economic upswing. As Table 2 shows, however, the pattern of growth during 1978 was far from stable. After a slight decline in the winter quarter, economic activity bounced sharply upward in the spring and then settled back in the last half of the year toward more moderate growth.

The winter decline in real GNP was the first such drop since the opening quarter of 1975, the nadir of the last recession, and reflected unusually cold weather in January and February and the 110-day bituminous coal strike that ended in late March. Especially hard hit by bad weather conditions was the construction industry, with spending down sharply on commercial and industrial

Table 2

CONSTANT DOLLAR GROSS NATIONAL PRODUCT, 1975-1978

(Seasonally adjusted annual rates)

					1978			
	1975	**1976**	**1977**	**1978e**	**I**	**II**	**III**	**IVe**
GNP (1972 dollars)	- 1.3%	5.7%	4.9%	3.8%	- 0.1%	8.7%	2.6%	4.2%
Final sales	0.2	4.3	4.7	3.7	- 1.6	8.6	3.7	4.3
Personal consumption expenditures	1.8	5.8	4.7	3.8	- 1.4	6.0	4.1	4.5
Residential fixed investment	-13.9	23.4	20.5	3.5	- 5.2	2.7	-1.6	1.0
Business fixed investment	-13.0	4.7	9.1	7.6	4.2	21.3	3.5	3.7
Government expenditures:								
Federal	0.7	0.1	5.2	-1.5	- 8.9	-15.3	14.3	3.5
State and local	2.6	0.1	0.8	4.4	- 0.1	9.6	3.4	3.9
Exports	- 3.2	6.5	2.4	9.3	13.7	43.3	1.9	12.4
Imports	-12.5	19.3	10.2	10.1	15.2	3.7	11.2	6.0

e — Estimate.

structures as well as on residential housing. Consumer purchases of easily postponable items, such as autos and other durable goods, were also affected significantly, and some unwanted inventory accumulation was evident.

With the first signs of spring, however, the economy turned around and surged upward at an extremely fast clip. Consumer spending rebounded, led by strong auto sales, and residential construction recovered. Not all of the turnaround in the second quarter, however, was attributable to a revival from weather-related weaknesses in the winter months. Business capital spending, particularly on structures, displayed impressive elements of strength, and a step-up in foreign demand for U.S. goods resulted in a marked improvement in the nation's net export position.

Economic activity was widely expected to slow in the year's second half, and with the arrival of summer, the anticipated slowdown materialized. The moderation in the advance was broadly based across major spending categories, but production schedules were adjusted promptly and little evidence of a pile-up in inventories appeared. Moreover, even though slowing, consumer spending and business capital outlays continued to show surprising elements of strength for so late in the business cycle. Indeed, this combination of factors was important in dispelling some of the doubts about the durability of the economic upswing into 1979, and permitted economic policymakers greater latitude in considering appropriate anti-inflation strategy than would have been the case were these elements of strength absent.

Sharp Climb in Interest Rates

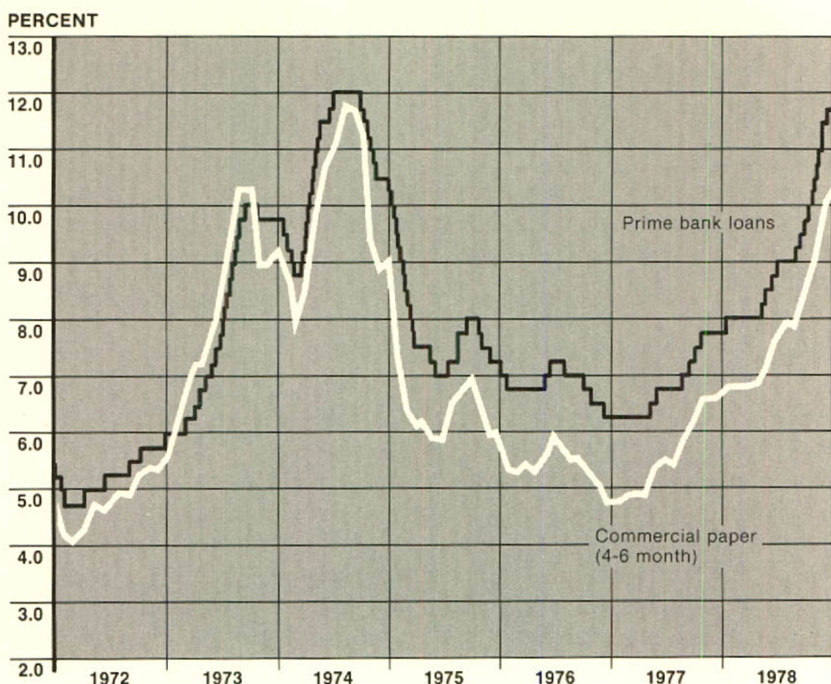
Charts 1, 2, and 3 depict the general pattern of interest rates on short-term securities, prime bonds, and lesser rated corporate securities in 1978 against the experience of earlier years back to and including 1972. As can be seen from the charts, interest rates across the maturity spectrum rose significantly over the year, with short-term rates advancing much more steeply than long-term rates. This pattern contrasts with 1977 when long-term rates were virtually flat until the fall of the year even in the face of a substantial increase in short-term rates.

Surge in short-term rates. Short-term interest rates were up by about 400 basis points in 1978, following a climb of 150 to 200 basis points during 1977. The increase in short-term interest rates this year occurred in three stages, with each successive stage showing a larger increase than the last. The first stage came in early January when the Federal Reserve, as part of a series of limited joint actions with the Treasury to stabilize the dollar, pushed the Federal funds rate up from 6½ percent to 6¾ percent and raised the discount rate one-half percentage point to 6½ percent. Other short-term rates rose in sympathy, including the prime bank loan rate which rose to 8 percent from the 7¾ percent level that had prevailed since October (Chart 1). After the initial step the justification for additional tightening moves diminished as the slide in the dollar halted and the economy showed signs of weakness from unusually cold winter weather and a major coal strike. Short-term rates partially retreated and then remained essentially flat through the early spring.

Business activity began to show definite signs of rebounding in March, and concern over inflation mounted. Credit demands were advancing at an exceptionally fast clip, and the money supply was climbing at excessive rates. In addition, the dollar again began to weaken in foreign exchange markets. Consequently, beginning in mid-April, the Federal Reserve moved decisively to tighten financial markets. From mid-April through July, the Federal Reserve pushed up the Federal funds rate in several steps from 6¾ percent to around 8 percent, and raised the discount rate in two steps from 6½ percent to 7¼ percent. These actions were accompanied by increases of comparable magnitude in open market rates. The prime bank loan rate advanced a full percentage point to 9 percent, and the 4- to 6-month commercial paper rate increased slightly more to nearly 8 percent. Then, as July neared a close, short-term rates fell off modestly and steadied.

The next major upward push in short-term rates began in mid-August as it became clear that monetary growth was again rising, outstripping the long-term objectives, and as renewed signs

CHART 1 • SHORT-TERM INTEREST RATES



developed of strain on the dollar in international markets. Concern over the sustained high level of the underlying inflation rate was mounting, and business activity, while slower, was showing no signs of slipping into a recession. In this environment the Federal Reserve embarked upon a steady step-by-step move toward higher rates. By mid-October, the Federal funds rate had been pushed upward from 7⅛ percent to 9 percent and the discount rate from 7¼ percent to a new high of 8½ percent. Uncertainty over the cost and availability of money began to grow, and as funds became increasingly costly to the banking system, the prime bank loan rate was forced upward to 10¼ percent by mid-October.

Even these increases in interest rates, however, failed to buttress markets for the onslaught of unfavorable economic news that soon appeared. Inflation showed signs of accelerating further, and the Federal Reserve's efforts to rein in runaway monetary growth were notably unsuccessful. In this environment, even President Carter's anti-inflation program announced on October 24 seemed to hold little prospect for success. Financial markets approached near-crisis conditions. The dollar came under extreme pressure, the stock market nose-dived, and debt markets weakened.

Then, on November 1, a series of joint actions by the Federal Reserve and the Treasury was taken to shore up the dollar and to further stiffen the fight against inflation. The Federal Reserve raised the discount rate a full percentage point (for the first time since 1933) to a record 9½ percent, increased reserve requirements on large CDs by 2 percent, raised the Federal funds rate and, jointly with the Treasury, announced a $30 billion currency mobilization scheme for supporting the dollar. Financial markets rallied and the dollar improved. Most short-term interest rates peaked out and stabilized shortly thereafter. However, in mid-December, the Federal Reserve was again apparently seeking to move short-term rates to higher ground. The Federal funds rate edged up to about 10 percent, and the prime bank loan rate continued to rise, reaching 11¾ percent.

Upward course of long-term rates. In contrast to the previous year, long-term interest rates rose substantially in 1978 (Charts 2 and 3). The upward trend for most long rates began late in 1977 as lenders anticipated accelerating inflation and growing pressures on

CHART 2 • YIELDS ON PRIME BONDS

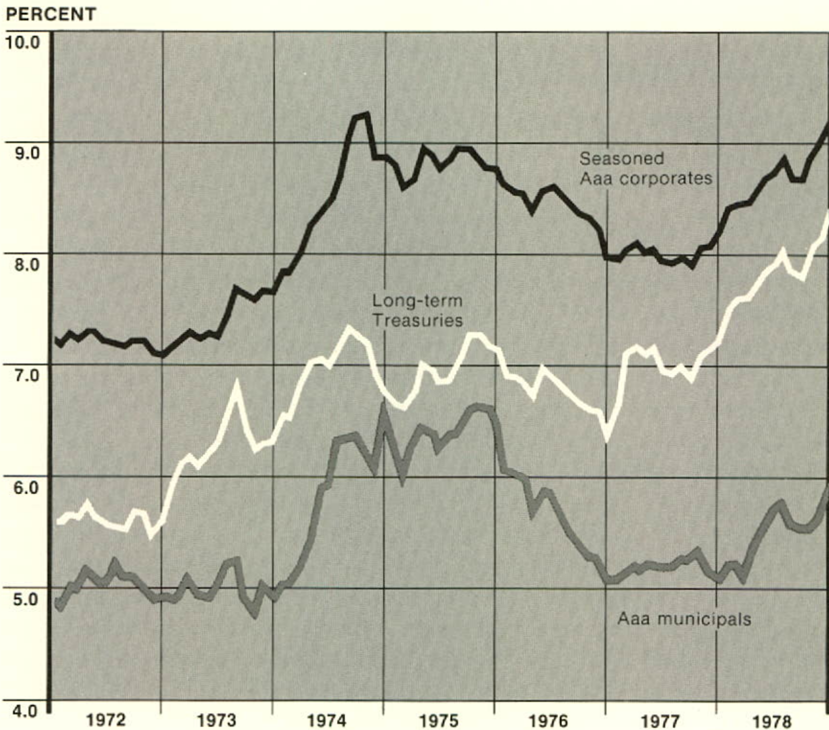
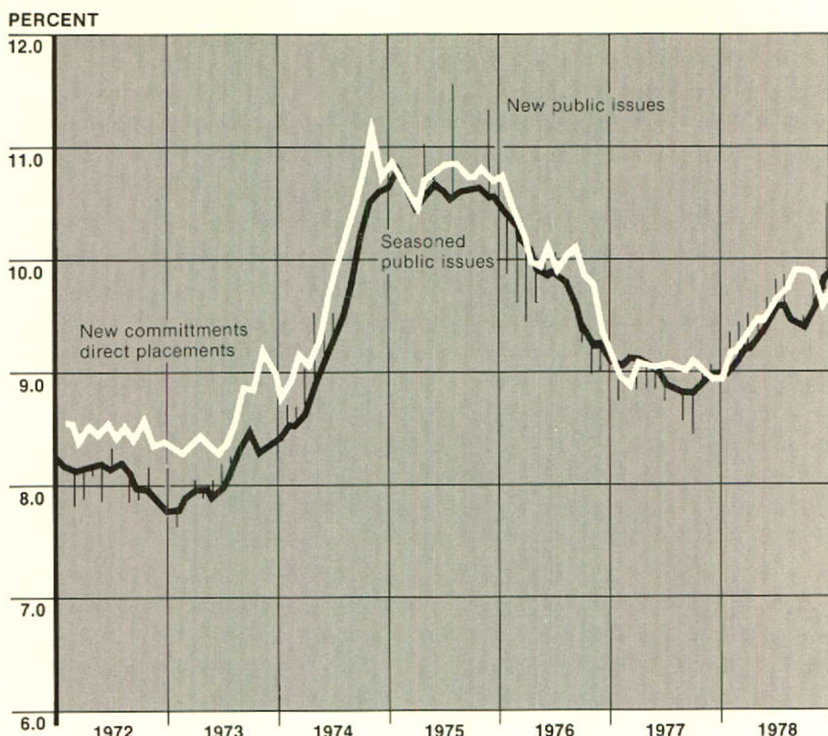


CHART 3 • YIELDS ON Baa CORPORATE BONDS



financial markets in 1978 from heavy federal government borrowings and strong demands by businesses and consumers. Hence, when the Federal Reserve's first tightening actions came in early January, long-term rates were already on the upswing and by late January were about 30 to 40 basis points above their early December levels. Long-term interest rates then stabilized until late March. At that time, in anticipation of a more restrictive stance in monetary policy, long rates resumed their upward course, increasing another 35 to 75 basis points by mid-July.

By this time, awareness was spreading in financial markets that the economy was slowing down from the torrid pace of the spring months, and it was widely expected that Federal Reserve tightening moves might be less than originally considered likely. Moreover, an abundance of funds was available from long-term lenders and the demands for funds by borrowers had weakened. Consequently, many came to feel that the peak in long-term rates was near. A strong rally developed, with long-term rates declining by about 50 basis points over the two-month period beginning in mid-July. All in

all, this fall in long rates was more pronounced and lasted nearly a month longer than did the summer decline in short-term rates.

As mentioned earlier, short rates started to increase again in mid-August, and by mid-September, began to put upward pressure on long-term rates. By mid-October most of the declines in long rates that had occurred during the latter part of the summer had been erased. Even the announcement of President Carter's anti-inflation program on October 24 did not arrest the slide in bond prices, and indeed, in the following week, long-term rates rose sharply. Only the announcement of the November 1 package of Treasury-Federal Reserve policy actions managed to restore orderly markets.

Following the November 1 actions, long-term rates declined modestly, but this downtrend was soon reversed. By year-end, the trend in long rates exhibited a pronounced upward tilt as long-term investors became increasingly concerned about the worsening inflation outlook, possible further weakness in the dollar in foreign exchange markets, stronger credit demands, and additional Federal Reserve tightening steps in the year ahead.

Overall, the dramatic increases in long-term rates in 1978 put seasoned Aaa corporates at 9.28 percent at year-end, well above the 8 percent plateau they had held during most of 1977 (Chart 2). Rates on seasoned Baa issues increased to an average of 9.83 percent in November, an advance about in line with seasoned Aaa issues (Chart 3). Hence, the quality yield spread between seasoned Aaa and Baa-rated corporates was virtually unchanged. However, the spread between Aaa corporates and long-term Treasuries (Chart 2) was generally less in 1978 than in 1977, and therefore stimulated broad interest in the Treasury bond market by investors interested in minimum-risk debt instruments. Yields on high-grade municipals were up by considerably less than yields on corporates and Treasuries and probably reflected the heavy demand for tax-exempt income by a wide range of investors.

Financing the Economy's Needs

Financial market analysts often referred to 1978 as a year in which credit demands exploded. Even in the face of rising interest rates, consumers, businesses, and governments at all levels effectively demanded about $430 billion in net new money in 1978, a further increase over the huge $393 billion amount raised in 1977. Accompanying this recourse to the credit markets, the balance sheets of businesses and households deteriorated further and additional debt burdens in the form of escalating interest costs increased the strains on incomes.

Strong business credit demands. Particularly striking was the continued expansion of business credit as extremely rapid rates of

inflation and high long-term borrowing costs led businesses to meet a large part of their external financing needs by borrowing at banks, finance companies, and in the commercial paper market at short- and intermediate-term. As Table 3 shows, business credit was estimated to have risen by over $50 billion in 1978, a larger increase than in 1977 and nearly at the pace of 1973-74, the last period of rapid credit expansion. However, this large dollar increase represented an advance of 15 percent in outstanding business credit, only slightly more than the 14 percent rate in 1977 and well below the 20 percent average gains in 1973-74. Moreover, there were definite signs that loan demands were beginning to slow by year-end. Commercial and industrial loans at large commercial banks, an important part of business credit, increased at a seasonally adjusted annual rate of about 7 percent from June to November, after having erupted at a rate in excess of 20 percent from January through June.

The advance in business credit in 1978 did contribute to an overall deterioration in the balance-sheet ratios of the nation's business corporations. Short-term debt was an estimated 25.5 percent of total debt at the end of 1978, compared with 24.8 percent in 1977, 23.7 percent in 1976, and an average of 25.4 percent in 1973-74. The reduced liquidity of these businesses was also evident. Their liquid assets as a proportion of short-term liabilities dropped to 27 percent at year-end 1978, well below the 34 percent share in 1976 and only slightly better than the 26 percent average in 1973-74. This deterioration in corporate balance sheets, moreover, occurred against the backdrop of still further increases in corporate debt to equity ratios. Equity financing was only a scant 1 percent of total external funds raised by nonfinancial businesses in 1978.

Table 3

NET NEW SHORT-TERM DOMESTIC BUSINESS CREDIT

(In billions of dollars)

	1973	1974	1975	1976	1977	1978*
Bank loans	$39.3	$33.6	$-17.5	$-5.6	$20.0	$32.6
Finance company loans	5.0	4.8	2.1	5.4	10.3	4.9
Commercial paper	6.4	7.9	- 1.8	3.6	11.3	13.5
Total	$50.7	$46.3	$-17.2	$ 3.4	$41.6	$51.0

*First three quarters seasonally adjusted at annual rates.

Source: Federal Reserve Board.

Corporate bond financing recedes. New issue volume in the corporate bond market continued to recede in 1978. The decline was centered in the public bond market, as takedowns in the direct placement market were about the same as last year's record volume.

In the public bond market, gross borrowings through November were estimated at about $21.4 billion or 18 percent below the $26.2 billion volume in the same period of last year. Particularly sharp reductions in financing volumes were recorded for industrial corporations, with lesser declines in bond flotations by utilities, financial institutions, and foreign governments and corporations.

The structure of the public bond market also changed during 1978 and moderated the potential financing pressures in the market. Aaa-rated corporations accounted for a much smaller proportion of the new issues in the public market in 1978 than in 1977, and when they did approach the bond market, they often preferred to use medium-term issues. As a result, the market remained receptive to lesser rated issues. For example, Baa-rated credits coming to market continued large and accounted for 14 percent of all new issues rated in Moody's top four rating categories, compared with 12 percent in 1977. Moreover, the volume of speculatively rated bonds, frequently issued in conjunction with equity issues, actually increased in 1978.

Although total offerings by financial institutions were somewhat less in 1978 than in 1977, new bond issues by finance companies showed an increase. Considering the heavy volume of auto sales in 1978, this rise in finance company intermediate- and long-term issues was not surprising. Of considerably greater interest, however, was the great diversity of new public issues by other financial institutions. Savings and loans were active issuers of pass-through certificates and mortgage-backed bonds, the volume of which is estimated to have been well in excess of $1 billion. Of these issues, the most interesting was the offer by Home Savings and Loan in California of securities collateralized by variable rate mortgages. New issues by commercial banks were markedly less in 1978 than in 1977. However, the first issue of a floating rate note by a commercial bank to U. S. investors since 1974 was an offering by Citicorp in July of $200 million of notes due in 1998. Likewise, although it was not offered directly to U. S. investors, the first floating rate European issue by a U. S. bank subsidiary, Chase Manhattan Overseas, came to market in July. This issue was for $150 million of notes due in 15 years and tied to the London base rate.

Foreign issuance of bonds in the public market was off slightly in 1978 compared with 1977, but again accounted for about a fifth of

new issue volume. Volume was bolstered by two huge U.S. offerings by the government of Canada in March and in October, each issue for $750 million. Moreover, a major borrower from Quebec Province, Hydro Quebec, was able to approach U. S. markets for the first time since the November 1976 change in the provincial government. Although uneasiness persisted, a 10 percent yield on the Hydro Quebec issue and a softened tone from Quebec on separatism apparently combined to overcome investor resistance.

Direct placement market trends. Largely reflecting the buildup in commitments last year, gross acquisitions of corporate bonds in the direct placement market about equalled the record amount last year. However, authorizations for future disbursements in this market were off sharply from 1977, and the backlog of commitments was also down. Industrial corporations accounted for most of this decline but still remained the major users of the direct placement market in 1978.

Foreign governments and corporations continued to account for a small proportion of the volume in the direct placement market in 1978, but some interesting developments occurred in this segment of the market that may portend further changes in the future. For the last two years, foreign governments and corporations represented about 10 percent of new business, far below 1976 when the proportion swelled to over 20 percent. Although Canadian corporations and governments continued to be the predominant borrowers in the direct placement market, there was small but growing interest in other foreign issues. One such issue in 1978 was particularly novel: $60 million of five-year floating rate notes offered by the Banque Nationale de Paris in August. The issue carried a spread of ¼ point above the London six-months Euro-dollar rate and was so well received that the amount offered was actually above the $50 million originally planned.

Stock market developments. Gross proceeds from the issue of corporate stocks were about the same in the first ten months of 1978 as in the like period of 1977. A decrease in preferred stock financing was offset by an increase in new common stock offerings coming to market.

The pattern of stock prices was essentially mixed in 1978. The AMEX Market Value Index gained about 18 percent, and the NASDAQ composite of over-the-counter stocks rose 12 percent over the year. These gains followed strong increases in 1977 and apparently reflected continued investor interest in many of the smaller and lesser known companies whose stock prices enter importantly in the compiling of these indexes. By contrast, stocks listed on the New York Stock Exchange rose only 2 percent in 1978, the Standard and Poor's Composite Index of 500 Stocks advanced

by 1 percent, and Dow Jones Industrials were actually off by 3 percent.

This overall record of stock prices in 1978, however, obscures some of the wide fluctuations that occurred during the year. Substantial foreign purchases of U. S. stocks helped to touch off a buying spree in mid-April that lasted until early June and sent stock prices sharply higher. The New York Stock Exchange's composite index and the Standard and Poor's 500 were both up by over 10 percent and Dow Jones Industrials by almost 12 percent. In fact, a gain of nearly 35 points in the Dow was sparked in the first two days of the April rally, one of the biggest advances ever recorded in this index up to that time.

Again in early July, as the feeling developed that interest rates were nearing their peaks for this cycle, stock prices turned upward. In September, however, stock prices peaked out as the bond market rally began to fade and the dollar came under renewed attack in foreign exchange markets. The decline accelerated following the announcement of President Carter's anti-inflation program in October. However, when the President finally announced his dramatic November 1 actions, the stock market staged an immediate rally, breaking many previous records. The Dow rose 35.34 points and the New York Stock Exchange's composite index rose 2.12 points.

Mortgage market developments. Housing activity, particularly in single-family homes, continued strong in 1978. Housing starts were nearly 2.0 million units in 1978, about the same as in 1977, and only marginally below the 2.1 million units some analysts estimated might have been achieved were it not for higher interest costs. Moreover, sales of existing homes continued to surge upward at extremely rapid rates, advancing by over 10 percent in 1978, following increases of 22 percent in 1976 and 19 percent in 1977. Many home buyers apparently saw housing as their only feasible hedge against inflation and even an increase in home mortgage rates of nearly 100 basis points in some regions was not enough to dampen buyer enthusiasm.

Net inflows into savings and small-denomination time accounts at thrift institutions and commercial banks were substantially less in 1978 than in 1977. Net inflows declined by about 18 percent at savings and loan associations (S&Ls), by nearly 25 percent at mutual savings banks, and were essentially flat at commercial banks. Yet, despite this behavior in inflows to the major private mortgage lending institutions, the net increase in home mortgage credit was estimated at about $95 billion for 1978, only fractionally less than the $99½ billion peak recorded in 1977.

Home mortgage volume was sustained at these high levels largely through the vigorous efforts of major government lending agencies. The Federal Home Loan Bank Board in May trimmed its liquidity requirement for S&Ls, releasing some $2 billion in liquid assets for mortgage lending. Moreover, the Federal Home Loan Bank provided in excess of $11 billion in loans to the S&Ls, the largest volume of such advances ever made in a single year. Likewise, a step-up in mortgage market support operations by Fannie Mae, Ginnie Mae, Freddie Mac, and other official or officially-sponsored agencies helped to sustain loan volume. In fact, adding advances and the other market support operations together, direct official or official-type support activities were estimated to account for over 35 percent of the total net increase in home mortgages outstanding in 1978.

Perhaps the most important step taken in 1978 to sustain deposit flows, and hence mortgage lending, was the action by federal regulators to permit thrift institutions and commercial banks to issue two new special savings instruments after June 1. One instrument has a maturity of eight years and carries a maximum interest rate of 7¾ percent for banks and 8 percent for thrift institutions. More significant, however, were the newly authorized money market certificates (MMCs). These certificates are issued in minimum denominations of $10,000 with a six-month maturity, and the maximum permissible rate of interest is tied to the average rate for six-month Treasury bills in the most recent weekly auction. Again, thrift institutions are allowed to pay ¼ point more than commercial banks for these certificates. It was estimated that at year-end 1978 well over $50 billion of MMCs were outstanding. Apparently, only around 50 percent of these certificates represented new money to banks and thrift institutions, but even so, without the MMCs the availability of mortgage funds in 1978 would have been extremely tight. By the close of 1978, however, many banks and thrift institutions had become concerned about protecting their earnings positions and were expressing less enthusiasm about the high and rising costs of funds from this source.

Another change in the home mortgage market that could have far-reaching effects in subsequent years was the action taken in December by the Federal Home Loan Bank Board permitting federally chartered S&Ls to offer variable-rate, reverse annuity, and graduated payment mortgages in addition to standard fixed-rate mortgages. These new mortgage instruments were expected to widen the range of alternative arrangements open to borrowers with varying financial requirements and to provide the S&Ls with greater flexibility in financing.

Multifamily mortgage lending. Nationally, the rental market showed signs of tightening in 1978, with the vacancy rate again registering a slight decline to an average of 5 percent for the year, well below the most recent peak of 6.2 percent in 1974. Sales of units in newly-completed condominiums and cooperatives as well as units in converted structures continued at a brisk pace, with the consequence that no glut seemed on the horizon for this segment of the multifamily mortgage market. Moreover, the market absorption of new multifamily rental units remained at a high level for the year.

Despite these signs of increasing tightness in the multifamily market, construction of rental units continued on a modest scale. In fact, subsidized rental housing seemed to be the only part of the market showing much in the way of gains. Unsubsidized rental construction remained weak largely because construction and maintenance costs continued to outpace the rise in rents, and the spread of rent control to California and other areas further compounded the problem. To these factors must also be added the high costs—in excess of 10 percent—of apartment mortgages. Indeed, there were reports at year-end that in some areas of the country construction of unsubsidized rental housing units had virtually collapsed.

All of these factors combined to keep the volume of lending in the multifamily mortgage market quite modest in 1978. Net new money supplied to this market was estimated at about $10 billion in 1978, up only slightly from the $7¼ billion advanced in 1977, and still below the nearly $13 billion in 1972. The thrift institutions and commercial banks continued to increase their lending in the market in 1978, and even life companies, which had been out of this market for nearly three years, showed some modest increase in their supply of funds to multifamily mortgages. However, despite the continued growth in private sector lending, federal agencies remained important suppliers, lending some 18 percent of the total amount of net new money in the multifamily market in 1978, the same proportion as in 1977.

Commercial and industrial mortgage lending. Spending on nonresidential building construction advanced at a healthy clip during 1978. This was in marked contrast to 1977 when spending on structures was lackluster while outlays for equipment by businesses were expanding at a fast pace. The increased rate of construction spending was particularly striking for industrial buildings and office buildings. Spending on other commercial structures, such as retail and wholesale establishments, and hotels and motels, also showed healthy gains.

Consistent with this accelerating pattern of construction was a strong increase in the demand for funds in the market for

commercial and industrial mortgages. Indeed, nonfinancial corporations, major borrowers in this market, not only increased their absolute dollar demands but relied relatively more heavily on commercial and industrial mortgages to meet their external financing requirements. Lenders, such as life insurance companies, continued to experience good growth in their cash flows and with the abatement of demands in the corporate bond market, were able to again increase their supply of funds to the commercial and industrial mortgage market.

Overall, the net increase in outstanding commercial and industrial mortgages was estimated at about $27 billion in 1978, compared with $18½ billion in 1977 and about double the $13½ billion in 1976. Data on mortgage commitments for nonresidential properties are limited, but are available for a sample of life companies. For these life companies, commitments grew at extremely rapid rates through mid-year, but after that point flattened out at a high level. This suggests that the commercial and industrial mortgage market will continue strong into 1979 but that growth will not be at the pace of this past year.

Federal government and agency financing. The federal government borrowed an estimated $31 billion of net new money in domestic financial markets by the issue of marketable securities in 1978, down from the $39 billion raised in 1977. Treasury financing in the winter months of 1978 was much higher and the paydown of marketables in the spring was much less than in the comparable periods of last year, resulting in a sharp increase in Treasury demands on financial markets in the year's first half. After mid-year, however, the monthly borrowing requirements by the Treasury in the open market were somewhat less than last year, but still remained high for this stage of the business cycle. Indeed, the Treasury was able to raise funds in 1978 only at sharply higher costs. In December, the Treasury sold $2½ billion of two-year notes at an average rate of 9.99 percent, the highest since the Civil War. In general, yields on long-term Treasuries rose by more than on high-grade corporates, narrowing the yield spreads on these issues and attracting investor interest to the Treasury market.

The Treasury used a particularly novel financing device in December when it sold in Germany $1.6 billion of bonds denominated in Deutsche marks. The sale was highly successful and other such offerings denominated in Swiss francs and Japanese yen were also planned. The intention to borrow foreign currencies in overseas bond markets had been announced initially as part of the November 1 Treasury-Federal Reserve initiatives. The proceeds from the issues are to be used to intervene in foreign

exchange markets to support the dollar when and if it comes under pressure.

In addition to substantial federal government borrowing, the financing requirements of the federal agencies soared. Net new money raised by these agencies was estimated at $31 billion in the first eleven months of 1978, up nearly 50 percent over the previous year. The appetite for new money by the agencies serving the nation's housing market increased sharply. This growth, coupled with the continued popularity of mortgage pool securities as well as sustained high demands for funds by agencies lending to farm businesses, pushed total agency borrowing up to new peaks.

State and local government securities market. State and local governments continued to tap the bond markets heavily for funds in 1978, grossing an estimated $42 billion in the first eleven months, about equal the amount raised in the comparable period of 1977. The high volume was sustained through sizable increases in refunding issues, particularly advance refundings, as bond sales to raise new capital moderated somewhat.

Advance refundings of previously issued debt were up sharply, rising to nearly 20 percent of gross new issues in the first ten months of 1978 from 13 percent in 1977. The surge in advance refundings reflected efforts by state and local governments to bring issues to market prior to the effective dates of a series of rulings tightening the regulations on the interest arbitrage operations of these political subdivisions.

These regulations were first published by Treasury in 1973 and have been amended on a number of occasions since then. In early May, for example, state and local governments sold a massive amount of refunding bonds in advance of the Treasury's prohibition on the use of invested sinking funds set to take effect on May 15. Borrowings by state and local governments in May rose to over $5 billion, of which over $2 billion was in advance refunding issues. In the following month, gross new issues fell back to $4 billion. A similar situation occurred again in August, when a record monthly volume—in excess of $6 billion—of new issues was floated, of which over 45 percent were in refunding issues. Treasury rulings, which took effect September 1, further tightened the regulations dealing with interest arbitrage profits for these governments. Following a record burst of borrowing in August, volume settled back to about $2¼ billion in September.

The sustained pitch of borrowing in the municipals market over the first eleven months of 1978 was all the more remarkable in light of the quite modest participation by the commercial banks in this market. For example, the weekly reporting banks increased their

holdings of tax-exempts by a modest $600 million in this period, compared with an increase of over $4½ billion in the same period of 1977. Part of the slack was taken up by property and casualty insurers, whose profitability and cash flows remained at high levels. Interest by individual investors, either directly or through municipal bond funds, further buoyed the market.

The market's receptivity to new issues apparently has not ebbed since the passage of the June 6 initiative on Proposition 13 and the emergence of a broadly-held concern over the spread of the taxpayer revolt to other states and localities. In the six months June through November, the average monthly volume of new municipal bond issues was $3.9 billion, even a bit above the average $3.7 billion in the first five months of 1978 before the vote on Proposition 13 and the rise of "Proposition 13 fever" across the nation. Nevertheless, while the market's willingness to purchase new issues apparently has not been impaired, the demand for funds is likely to be more modest than it otherwise would have been, as states and localities embrace the cause of fiscal conservatism in the face of voter unrest.

INVESTMENT OPERATIONS OF U. S. LIFE INSURANCE COMPANIES IN 1978

Life insurance companies invested a record volume of funds in 1978, a direct reflection of the growth in the sources of investment funds. Premium and investment income climbed strongly, and these funds were augmented by the increasing flows from maturities, repayments, and sales of existing investments.

Corporate bonds of a wide variety of business firms again provided the major outlet for investment funds, and mortgage lending resumed a normal role in investment operations, improving further on the partial recovery made in 1977. Mortgage loans on commercial, industrial, and farm properties were emphasized, but the home mortgage market also attracted funds from a limited number of companies. In addition, securities backed by home mortgages served as an alternative channel for directing funds into this market. Except for sizable purchases of federal agency securities, life insurers otherwise made only minor additions to holdings of government securities.

Common stocks were sold in unusually large amounts and, on balance, these sales outweighed purchases, largely the result of shifts by separate account clients to fixed-income issues and real estate equities. Preferred stock investments, however, continued to be made for the general accounts. Policy loan demands accelerated in 1978, especially in the closing months of the year; however, this uptrend was widely anticipated and had little impact in 1978 on the pattern of market investments.

Major Investment Outlets

Net investments made by life insurers in 1978 are estimated to exceed $35 billion, up 14 percent from the 1977 total of nearly $31 billion. In the following sections dealing with the major investment outlets of the companies, the focus is on net long-term investments, estimated at $34.8 billion in 1978, an increase of 8 percent over the 1977 amount of $32.1 billion. Estimates of year-end 1978 assets of life insurance companies, together with the final figures for 1976 and 1977, are given in Table A-1 of the Appendix to this report; Table A-2 provides changes in assets as well as the net long-term investment totals of the last three years.

Corporate bonds. Life insurance companies again in 1978 invested over half of net long-term funds in corporate bonds. The 1978 net investment of an estimated $18 billion represented 52 percent of the total of net long-term investments, somewhat below

the 55 percent share in 1977. Portfolios of domestic and foreign corporate bond holdings increased 14 percent during 1978 to reach $151 billion, or 39 percent of total assets held at the end of the year.

Market offerings of corporate bonds were moderately lower in 1978 than in 1977, but the volume was still sizable by historical standards. Life insurance companies' purchases of directly placed corporates were well maintained at about the 1977 amount, reflecting the heavy backlog of outstanding commitments at the start of the year involving 1978 payouts, as well as takedowns from commitments made during the year. The pace of direct placement submissions slowed in 1978, however, and the companies turned increasingly to the public bond market. In addition to providing an array of typical offerings of a variety of businesses, the public bond market served also as a significant source of mortgage financing in 1978, through the sales by the Bank of America and leading savings and loan associations of securities backed by conventional home mortgages. Instruments of this type, which are a variation of GNMA guaranteed securities involving government-backed mortgages, also showed up in the direct placement market. These certificates and bonds channeled funds to the conventional home mortgage market not only from investors who are not staffed for mortgage lending but also from investors whose mortgage departments are oriented to investing in income-property loans.

The advance commitments made by life insurers in 1978 for corporate bonds declined about one sixth from the record volume committed in 1977. Takedowns from commitments matched the year-earlier pace and, indeed, ran ahead of new commitments. As a result, the backlog of outstanding commitments for corporate bonds was worked down during 1978 to a level about 30 percent below that at the start of the year. Since corporate bond commitments largely reflect direct placements, the current outlook for 1979 financing in this market appears more limited than the hefty volumes seen in the last three years.

Mortgages. Mortgage lending in 1978 returned to a more usual role in the investment operations of life insurance companies, extending the partial recovery that got underway in 1977. The net increase in mortgage holdings, estimated at $9.3 billion, represented 27 percent of the total of net long-term investments, up from a low 9 percent share in 1976. The portfolio of mortgage holdings increased about 10 percent during the year to total $106 billion at the end of 1978.

The activity in mortgage lending involved record totals for both loan purchases and new commitments made for later funding. Gross loans made ran 30 percent above the $14 billion of loans

acquired in 1977 while new commitment volume ran about 20 percent above the 1977 total of some $20 billion. Lending and commitment activities of the companies continued to focus on commercial, industrial, and other nonresidential properties, including farm and ranch properties, but residential lending also picked up, as discussed more fully below.

Nonfarm, nonresidential mortgages. The net investment in commercial, industrial, and institutional mortgages (on U.S. properties) accounted for over 20 percent of the total of net long-term investments of life insurance companies in 1978, compared with 18 percent in 1977. Holdings of nonresidential mortgages increased by an estimated $7.4 billion, or 14 percent, to total $60.4 billion at the end of the year. The dollar increase topped the previous high of $5.7 billion in 1977 while the percentage increase was the largest since 1973 when the portfolio was roughly half the current level.

The volume of 1978 lending was largely based on the substantial backlog of commitments outstanding at the start of the year, and during the year new commitments were made in even larger totals than in 1977 (see Appendix Table A-3). Despite record disbursements of an estimated $11½ billion, outstanding commitments continued to build up, on balance. The backlog outstanding at the end of 1978, estimated at $18.5 billion, increased 35 percent over the year, providing a strong base for 1979 investments.

Nearly all types of nonresidential buildings contributed to the increase in new commitments made by life insurance companies in 1978, including the two major categories of office buildings and shopping centers. The demand for office building financing was particularly strong in 1978 while that for shopping centers apparently slowed from the pace in the preceding two years, based on the reporting of a sample group of companies. Also significant were the sizable loans for hotels, but especially noteworthy was a further pickup in commitments made for manufacturing plants and industrial warehouses, which involve relatively small loans. On the other hand, commitments made for nursing homes were slightly lower than in 1977 and those for hospitals were down sharply.

Multifamily mortgages. The amount held by life insurers in multifamily mortgages turned up in 1978, reversing the downward trend of the previous three years. A small net investment, estimated at $300 million, accounted for less than 1 percent of the total of long-term investments and added only 2 percent to the portfolio but contrasted sharply with net decreases of $450 million and $545 million in 1976 and 1977. The portfolio held at the end of 1978 of

$18.2 billion compares with a peak of $19.1 billion set in early 1975.

Acquisitions of apartment mortgages by life insurers were the largest in four years, running about 85 percent above the $1 billion made in 1977. Nearly half of the total represented loans on existing buildings, roughly similar to the composition of 1977 lending but notably different from the emphasis on new projects that prevailed prior to 1976. The financing needs of the resale market continued to grow, along with the inflation of property values, and refinancings of existing loans held in the portfolio were another source of loan demand. The greater certainty of the income stream from established buildings, as opposed to new projects, and the availability of these mortgages for early funding were factors bearing on the 1978 apartment investments of some of the companies.

New commitments made for apartment loans in 1978 were easily the largest since 1973, as apartment construction activity picked up from the low levels of 1974-77. The 1978 commitment total, estimated at $2.3 billion, ran 45 percent more than in 1977, but was well below the totals in 1971-73 when apartment construction was booming. Outstanding commitments for multifamily mortgages increased about 20 percent in 1978 to total over $2 billion at the end of the year, an indication of a potential for further modest growth in the holdings of these loans.

A brightening outlook for multifamily mortgage portfolios was also found in a further improvement in the experience with loan delinquencies and foreclosures. Although still high by pre-1974 standards, the rate of apartment loan delinquencies, including loans in process of foreclosure, dipped below 3.4 percent in mid-1978 as against 5.9 percent two years earlier, reflecting a reduction also in the amount of loans in process of foreclosure (see Table A-4). Completed foreclosures were running at an annual rate of 0.5 percent, or under $100 million, a noticeable improvement from the pace in 1975-77.

One-to-four family mortgages. The decrease in life insurance companies' holdings of 1-4 family mortgages slowed to about $0.2 billion in 1978 from $1.4 billion in 1977. Purchases of home mortgages accelerated in each quarter, and after mid-year loan acquisitions outpaced the runoff from loan repayments. The net investment in the latter half of the year interrupted the downtrend in the holdings of home mortgages that had persisted since 1966. After dipping below the $13.6 billion level at mid-year, portfolio holdings turned up to reach an estimated $13.8 billion at year-end, 2 percent below the $14.05 billion held at the start of the year.

New commitments made in 1978 for later disbursement on 1-4 family mortgages increased 180 percent above the $600 million

committed in 1977. Much of the 1978 commitment volume reflected amounts subsequently disbursed during the year and was supplemented by outright purchases from mortgage bankers and other investors. Gross loans made on 1-4 family properties approached the $1.7 billion level, a full billion more than in 1977. The revived interest in home mortgages, which had showed up on a smaller scale in 1977, was sparked by the high level of these mortgage yields, net of servicing costs. In addition, the low risk of conventional home loans, coupled with their ready availability for purchase, enhanced their attractiveness to a growing, but still relatively small, number of companies.

Farm mortgages. Farm mortgage lending, which is carried on by a limited number of life insurance companies, was well maintained in 1978 at the increased level of activity seen in 1977. The net investment in farm mortgages accounted for just over 4½ percent of the total of net long-term investments, little more than the 4.4 percent share in 1977. Farm mortgage portfolios increased $1.65 billion, or 19 percent, during 1978 to total $10.5 billion, compared with an increase of $1.4 billion, also 19 percent, in 1977. The amount of new commitments for farm mortgages was also relatively stable; the annual total of an estimated $2.7 billion was moderately above the $2.5 billion commitment in 1977, in contrast with the sharp rise of 68 percent in 1977 over 1976 (see Appendix Table A-3).

U. S. Treasuries and federal agency issues. The net investment by life insurance companies in the longer-term notes and bonds of the U. S. Treasury was negligible in 1978, amounting to little more than $50 million as against $770 million in 1977. In the first half of the year, these holdings were drawn down by $200 million, in an apparent switching to other, higher yielding investments, but subsequently were built up to reach an estimated $4.8 billion at year-end. The limited 1978 net investment in Treasuries contrasted with gross purchases of about $1.75 billion, an amount moderately below the $2.1 billion acquired in 1977.

The companies continued to make sizable investments in federal agency securities. The net investment of an estimated $2.25 billion accounted for 6.5 percent of the total of net long-term investments, up from $1.76 billion and a 5.5 percent share in 1977. Included among the variety of federal agency issues were increasing purchases of GNMA mortgage-backed securities, instruments which are attractive because of their monthly payment of interest and the pass-through of principal payments, including prepayments. Holdings of longer-term federal agency securities, estimated at $6.2 billion at the end of 1978, were up nearly 60 percent over the year, on top of an 81 percent increase in 1977. In addition, the companies held an estimated $100 million of short-

term federal agency securities at year-end, up about $50 million during the year.

Foreign government and international. The net investment in foreign government and international agency securities slowed further in 1978, amounting to about $525 million, or 1.5 percent of the total of net long-term investments, down from $1.2 billion and 3.7 percent of the 1977 total and a peak share of 9 percent in 1976. Holdings of foreign government and international agency securities amounted to an estimated $8.7 billion at the end of 1978, up 6.5 percent during the year as against extraordinary increases of 17 to 55 percent in the three preceding years.

State and local securities. Life insurers' net investment in state and local securities contracted further in 1978, dropping to about $55 million from $455 million in 1977 and nearly $1.2 billion in 1976. Yields on tax-exempts increased little relative to taxable bonds in 1978, and the spread between high-grade corporate and municipal bond yields widened significantly, to about 320 basis points on average from about 280 basis points in 1977. The relatively high prices of tax-exempt bonds provided opportunities to portfolio managers for switching to improve overall yields, and the holdings of life insurance companies of state and local securities declined during much of the year, dipping below the $5.9 billion level in the summer, but backed up to an estimated $6.1 billion by year-end. Gross purchases of $1 billion were close to the $1.2 billion made in 1977, an indication of considerably more activity in this market by life insurers than shown by the limited amount of net investment.

Policy loans. Outstanding policy loans increased $2.3 billion, or 8.5 percent, during 1978, compared with an increase of $1.7 billion, or 6.7 percent, in 1977. Although the 1978 increase was the largest in four years, outstanding policy loans dipped to 7.7 percent of total assets at the end of 1978 from 7.8 percent a year earlier, continuing the downtrend from the recent peak of 8.7 percent reached in 1974. This downtrend largely reflected the high rate of growth in total assets after 1974 that resulted from the expansion of the pension and annuity business of the companies. In contrast with the pattern of decrease in terms of asset shares, the ratio of outstanding policy loans to ordinary life insurance reserves has increased by nearly a full percentage point since 1974, of which 0.5 of a percentage point occurred in 1978, as shown in Table 4.

The 1978 dollar increase in outstanding policy loans was second only to the $2.7 billion in 1974 while gross loans made, estimated at $5.8 billion, exceeded the previous high by 9 percent.

Corporate stocks. In most months of 1978, life insurance companies were net sellers of common stocks. Although these net

Table 4

POLICY LOANS HELD RELATIVE TO TOTAL ASSETS AND ORDINARY LIFE RESERVES

End of Year	Assets	Reserves	End of Year	Assets	Reserves
1970	7.8%	16.1%	1975	8.5%	18.5%
1971	7.7	16.1	1976	8.0	18.5
1972	7.5	16.1	1977	7.8	18.7
1973	8.0	17.1	1978 est.	7.7	19.2
1974	8.7	18.3			

sales were largely on behalf of separate account clients, occasional net sales from the general accounts were also made, sharply limiting the net investment in common stocks for the general accounts. On balance, the net disinvestment in equities for the separate and general accounts combined came to an estimated $200 million. These net sales, unprecedented as far back as data are available, followed an unusually low net investment of $770 million in 1977—at the time, the smallest in eleven years—and were in contrast to the $2.2 billion of net investment in 1976. As an offset to 1978 net sales, a small rise in market prices added about 2 percent, or $500 million, to the carrying values of stocks held, compared with a valuation loss of $2.4 billion in 1977. In total, the portfolio of common stock holdings increased about 1 percent during 1978 to an estimated $24.4 billion at year-end.

Separate account net sales of common stocks came to $300 million, offsetting the 1977 net investment of a similar amount. At the end of 1978, common stocks held in these accounts were valued at an estimated $10.9 billion and represented a historically low 55 percent share of total separate account assets, down from 63 percent at the end of 1977.

General account net investment in common stocks dropped to an estimated $100 million in 1978 from $476 million a year earlier. The market value of common stocks held in the general accounts at the end of 1978 came to $13.5 billion and accounted for 3.7 percent of total general account assets, compared with $13.1 billion and 3.9 percent of general account assets at the end of 1977.

Net investment in preferred stocks, made entirely for the general accounts of the companies, is estimated at about $0.8 billion in 1978, down from $1.1 billion in 1977 when direct placement offerings, largely taken by life insurers, added strongly to market demands of that year. Preferred stock holdings increased 8.5 percent during 1978 to total $10.5 billion at the end of the year. An estimated 45 percent of the companies' portfolio holdings represented issues acquired through direct placement, a noticeably

larger share than the average of 25 percent that such placements represented in total market offerings of preferreds over the past half dozen years.

Real estate. Holdings by life insurers of directly owned real estate increased about $700 million in 1978 to total $11.75 billion at the end of the year, compared with an increase of $584 million in 1977. Most of the 1978 increase resulted from properties acquired for investment purposes, as opposed to company-used properties and those acquired through mortgage loan foreclosures. Ownership of investment real estate is estimated to have increased about $600 million, up from a $400 million rise in 1977, reflecting strong growth in real estate equities in the separate accounts. The growth in these separate account equities is estimated at nearly $400 million for 1978, compared with $150 million in 1977. Company-used properties are estimated to have increased about $75 million while the net increase in other properties, largely representing foreclosed mortgages, was negligible in 1978.

Measures of Investment Performance

The most widely available and longest recorded indicator of investment performance of life insurance companies is the rate of net investment income on the invested assets held in the general accounts. This rate and the underlying dollar amounts are required in the annual statements filed with the state regulatory authorities, and industry aggregates have long been compiled by Council staff. The 1978 net rate of income on the investments held in the general accounts of the companies is estimated at 7.35 percent, and the corresponding rate for total invested assets, including separate accounts, is estimated at 7.25 percent. The 1978 estimates shown in Table 5 indicate an increase from 1977 of 35 basis points in the net income rate of the general accounts and 36 basis points in the net rate on total invested assets. (The actual results for 1978 will become available in the late spring of 1979 when the annual statement tabulations are completed.)

The estimated 35 basis points increase in the general accounts rate for 1978 represents a record rise for the second successive year, improving on the high annual increase of 32 basis points in 1977. The added push on portfolio yields primarily reflects the fortunate combination in 1978 of increasing inflows of new funds for investment and rising market rates of interest. In addition, the high yields available on money market instruments increased the returns from cash management, and the companies continued to make shifts in portfolio holdings for the purposes of overall yield improvement. The estimated annual increase of 36 basis points in

Table 5

RATIO OF NET INVESTMENT INCOME TO INVESTED ASSETS OF U. S. LIFE INSURANCE COMPANIES

Year	Net Investment Income (Including separate accounts) Millions	Rate	General Accounts Rate
1973	$13,670	5.88%	6.00%
1974	15,144	6.25	6.31
1975	16,488	6.36	6.44
1976	18,758	6.55	6.68
1977	21,713	6.89	7.00
1978	25,100e	7.25e	7.35e

e — Estimated.

Note: Rates are derived from dollar aggregates. Investment income is after investment expenses and depreciation but before federal income taxes. Investment income includes interest, dividend, rental, and other income but excludes capital gains or losses.

the 1978 net rate of income on total invested assets, including separate accounts, is just under the record rise of 37 basis points in 1974. In contrast with that year, when the income rate benefited from a sharp drop in the carrying values of common stocks held in the separate accounts, the 1978 estimate reflects the rising income returns from the growing amounts of debt securities and real estate equities held in the separate accounts. As shown in the table, the dollar total of net investment income climbed above the $25 billion level in 1978, up 15.6 percent over the 1977 total.

A measure of investment results having a direct application to present-day management is the "new money" rate on long-term investments added to portfolios in a year, as distinguished from the rate of income on total holdings of invested assets. Composite averages of the yields on new investments have been available for only the last several years, through annual surveys conducted by the Council of a sample group of companies. The reporting provides gross annual yields, before deduction of investment expenses, on the bonds, mortgages, and preferred stocks added to the general accounts of the companies. Gross yields on these new investments made in 1977 averaged just over 9⅛ percent, and 1978 yields are expected to be higher, probably topping the 9⅜ percent level.

New investments made by life insurance companies in a year reflect investment decisions made over a time period longer than a single year, since they include takedowns of securities and mortgages for which commitments were made in earlier years, as well as long-term investments which came to market in the current

year. Accordingly, new investment yields do not provide an accurate gauge of market conditions in a single year or the investment decisions made in the current year.

A more direct measure of current market trends is provided by the interest rates at which new forward commitments are made for corporate bonds and mortgages. Average yields on commitments made by life insurance companies for directly placed corporate bonds followed an upward trend in 1978, in contrast to the pattern in 1977 when rates fluctuated within a relatively narrow band, moving downward in the final months. Rising rates early in 1978 soon moved direct placement yields to a level about ⅜ of a percentage point above those prevailing in 1977, and further gains widened the margin. Despite a dip in the fall, direct placement bond yields increased about ⅞ of a percentage point during 1978 over the December 1977 level.

Average commitment rates on income-property mortgages were fairly stable at the start of 1978 but turned up decidedly in the early spring. These mortgage rates rose about 25 basis points over the spring and another 25 basis points over the summer, reaching the 9¾ percent level. Summary data from the Council's surveys of income-property mortgage commitments are given in Appendix Tables A-5 and A-6. As may be seen, the weighted average of interest rates on commitments made during the third quarter of 1978, 9.76 percent, was up 46 basis points from the 1977 fourth-quarter average, and when the focus is on interest rates in the United States, the rise came to 55 basis points. Changes in the average rate for total commitments reflect variations also in the composition of loan commitments. An important variable for income-property mortgages is the type of building securing the mortgage. Interest rates for major property types are given in Table A-6, and the full report provides detailed information on other loan characteristics, such as capitalization rate, loan constant, geographic location, amortization, prepayment and call provisions, that are useful in accounting for differences between the results of the individual firm and those of the reporting sample. As indicated by the Appendix listing of research studies supported by the life insurance business, historic data on mortgage commitment interest rates extend back to 1951.

Another measure of portfolio performance of life insurers, also of longstanding, is provided by the annual surveys of the income and costs of the mortgage accounts. A summary of the results for 1977 and other recent years is given in Table A-7. The data of the reporting group are essentially the mortgage results that enter into the net income rate on total invested assets given above. The net income rate of the mortgage portfolios held by the reporting

companies averaged 7.60 percent in 1977, a level that indicates the importance of mortgage returns to the general accounts rate of 7.00 percent for all life insurers in 1977. Moreover, the 1977 increase in the net income rate of the mortgage portfolio accelerated to 38 basis points from 16 basis points in the preceding year, a strong factor in the 1977 increase of 32 basis points in the overall portfolio rate.

Cash Flow for Investment

Cash flow for investment of life insurance companies continued to climb in 1978, reaching an estimated $58 billion. The estimate reflects a moderate increase of 10 percent over the 1977 total as against an annual increase of 14 percent in 1977. A net addition to holdings of cash and short-term securities reduced long-term investment funds in 1978, whereas a relatively substantial drawdown of liquidity positions had added to cash flow in 1977. The turnaround in the management of cash positions masked the strong growth during 1978 in the major sources of funds. Another negative, but still relatively minor, factor was the stepped-up demand in 1978 for policy loans, an application of funds that reduced cash flow available for market investments.

The estimates of cash flow given in Table 6 are based on the quarterly reporting of a sample group of companies, which supply details on the sources of funds. Results of the reporting group for recent quarters are shown in Appendix Table A-8. As indicated by the detailed table, cash flow includes not only the growth in ledger assets, representing new funds from insurance operations and investment income, but also the sizable amounts for reinvestment stemming from maturities and other repayments, calls, and sales of existing investments. The cash flow total is a measure of gross funds disbursed for long-term market investments.

The cash flow totals of the reporting group were at high levels in each of the first three quarters of 1978, reflecting strong growth over 1977 in the ledger asset increase as well as considerable amounts

Table 6

ESTIMATED CASH FLOW FOR MARKET INVESTMENTS U. S. LIFE INSURANCE COMPANIES

(In billions of dollars)

Year	Amount	Year	Amount
1970	$16.6	1975	$33.5
1971	25.3	1976	46.2
1972	30.8	1977	52.6
1973	31.0	1978	58.0p
1974	26.0		

p — preliminary.

from sales of securities. During the first three quarters combined, cash flow ran 13 percent above the comparable total in 1977 but for the full year is estimated to run 8-9 percent higher, based on a projection of no growth in the final quarter over the swollen total in the fourth quarter of 1977.

The ledger asset increase of the sample group in the first three quarters of 1978 accelerated 13 percent over the comparable 1977 total and is estimated to maintain this pace for the full year. The return flows from securities increased rapidly, primarily reflecting sales of stocks, which were half again as large as in 1977, but also bond sales, the results of shifts involved in the management of portfolios. The growth in mortgage repayments was small, and bond maturities were only moderately larger over the year.

The 1977 pattern of buildups of cash position in the first and third quarters alternating with drawdowns in the second and fourth quarters persisted in 1978, but the difference between the two years lay in a net buildup during 1978. The acceleration in the net increase in policy loans diverted larger amounts from other investments than in 1977, although the increases appeared small relative to investment funds: for the reporting group, policy loans moved up to 4.2 percent of investment funds in 1978 from 3.1 percent in the earlier year.

Asset Growth

Assets of U. S. life insurance companies increased strongly again in 1978, in step with the high rates of growth seen in the preceding three years. The asset total reached an estimated $389 billion at the end of 1978, a rise of 10.6 percent during the year, compared with 9.4 percent in 1977 and 11.1 percent in 1976. The estimated asset total for 1978 includes an allowance for a small net capital gain, in contrast with a net capital loss in 1977 and a sizable net capital gain in 1976, largely reflecting changes in stock market prices. When adjusted to exclude these fluctuations in valuation, assets increased by an estimated 10.5 percent in 1978, progressing from 10.2 percent in 1977 and 10.0 percent in 1976.

In dollar terms, the 1978 asset increase amounted to an estimated $37.3 billion as against $30.2 billion in 1977. When adjusted for valuation changes, the increase came to $37 billion in 1978 compared with $32.7 billion in 1977. The size of these increases is more striking in the perspective of the recent past: the 1973 asset increase adjusted to exclude the net capital loss of that year came to $17.4 billion, less than half the 1978 amount, and the comparable 1968 figure was $9.9 billion, roughly one fourth the 1978 figure.

The growth in the group and individual annuity business and the improvement in net investment income of the companies, noted

earlier, have contributed importantly to the above-average rates of asset increase of the last several years. Annuity considerations are estimated at $16.7 billion during 1978, 11.5 percent above the $15 billion in 1977. As another measure of this business, pension reserves increased an estimated 17.5 percent in 1978, up from a 15.8 percent increase in 1977. The life insurance business, which is the mainstay of the companies, maintained a steady growth; premium income from life insurance of an estimated $36½ billion was up about 8.5 percent over the year, compared with a 7.7 percent growth in 1977 over 1976.

The faster pace of asset growth of life insurance companies during the past four years relative to the historic experience clearly shows up in Table 7, which also compares life insurers with several other types of institutional investors. The annual average growth rate adjusted for valuation changes came to 9.9 percent for life insurers during the latest four years, a gain of some 3 percentage points over the average during the first half of the 1970s. As can be seen from the table, this recent higher rate was still below the rapid pace of savings and loan associations and also below the rate of state and local government retirement funds, but differed little from the averages for noninsured pension funds and mutual savings banks. Most notable, however, is the narrowing of the difference between life insurance companies and the other groups as compared with the early 1960s, when the growth rate of life insurers was at an ebb. In comparison with the other institutions, asset growth of life insurers has shown both a steadier and stronger upward trend over the period since the mid-1960s.

Table 7

AVERAGE ANNUAL RATES OF ASSET GROWTH

	Five-year period			Four-year period
	1960-64	1965-69	1970-74	1975-78e
Life insurance companies	5.4%	5.7%	6.6%	9.9%
Noninsured pension funds	11.9	9.9	7.7	10.1
State and local government retirement funds	11.3	11.4	12.0	12.3
Savings and loan associations	13.4	6.3	12.8	15.4
Mutual savings banks	6.8	6.6	8.0	9.8

e — Estimated for 1978.

Asset growth of life insurance companies, noninsured pension funds, and state and local retirement funds was measured by the increase in assets adjusted for net capital gains or losses. The unadjusted increase in assets was used for savings and loan associations and mutual savings banks.

APPENDIX TABLES

Table A-1

ASSETS OF U.S. LIFE INSURANCE COMPANIES, 1976-1978

(Dollar amounts in millions)

	Dec. 31, 1976		Dec. 31, 1977		Est. Dec. 31, 1978	
Asset Class	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**
Bonds, notes, and debentures						
U.S. Treasury	$ 5,368	1.7	$ 5,315	1.5	$ 5,300	1.4
U.S. federal agency	2,318	0.7	4,002	1.1	6,300	1.6
U.S. state and local	5,594	1.7	6,051	1.7	6,100	1.6
Foreign government and international	6,980	2.2	8,187	2.3	8,750	2.2
Total government	**$ 20,260**	**6.3**	**$ 23,555**	**6.7**	**$ 26,450**	**6.8**
Corporate—1 year or less	5,224	1.6	4,896	1.4	5,300	1.4
U.S. corporate—over 1 year	108,725	33.8	125,599	35.7	142,800	36.7
Foreign corporate—over 1 year	6,717	2.1	7,394	2.1	8,200	2.1
Total corporate	**$120,666**	**37.5**	**$137,889**	**39.2**	**$156,300**	**40.2**
Stocks						
Preferred	8,568	2.7	9,677	2.8	10,500	2.7
Common	25,694	8.0	24,086	6.8	24,400	6.3
Total stocks	**$ 34,262**	**10.7**	**$ 33,736**	**9.6**	**$ 34,900**	**9.0**
Mortgages						
Farm	7,425	2.3	8,842	2.5	10,500	2.7
Nonfarm	84,127	26.2	88,006	25.0	95,600	24.6
Total mortgages	**$ 91,552**	**28.5**	**$ 96,848**	**27.5**	**$106,100**	**27.3**
Real estate	10,476	3.3	11,060	3.1	11,750	3.0
Policy loans	25,834	8.0	27,556	7.8	29,900	7.7
Cash	2,003	0.6	2,130	0.6	2,100	0.5
Other	16,499	5.1	18,921	5.4	21,500	5.5
Total assets	**$321,552**	**100.0**	**$351,722**	**100.0**	**$389,000**	**100.0**

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

Separate account assets included in the data above amounted to $16.2 billion, $17.4 billion, and an estimated $19.9 billion at the end of 1976, 1977, and 1978.

Table A-2

NET CHANGES IN ASSETS, 1976-1978

(In millions of dollars)

Asset Class	1976	1977	Estimated 1978
Bonds, notes, and debentures — over 1 year			
U.S. Treasury and federal agency	$ 1,179	$ 2,537	$ 2,316
U.S. state and local	1,174	455	54
Foreign government and international	2,467	1,196	529
Corporate — U.S. and foreign	14,418	17,551	18,007
Total — Over 1 year	19,238	21,739	20,906
Stocks	6,201	-499	1,137
Mortgages	2,385	5,296	9,252
Real estate	855	584	690
Policy loans	1,367	1,722	2,344
Short-term debt issues	674	-1,221	400
Cash and other assets	1,528	2,549	2,549
Increase in assets	$32,248	$30,170	$37,278
Memorandum:			
Increase in assets excluding net capital gain or loss	$28,941	$32,743	$37,000
Net long-term investments*	$26,965	$32,100	$34,750

*Defined as the net increase in assets adjusted to exclude changes in cash, short-term investments, and non-invested assets, as well as net capital gain or loss.

Table A-3

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

(In millions of dollars)

Year or Quarter	Farm	Nonfarm		Total
		Residential	Nonresidential	
1970	$ 285	$1,979	$ 3,381	$ 5,645
1971	590	2,912	6,122	9,624
1972	817	4,052	8,260	13,129
1973	1,128	3,129	9,768	14,025
1974	1,112	1,298	6,077	8,487
1975	981	561	5,342	6,884
1976	1,518	1,204	8,286	11,008
1977	2,547	2,185	15,415	20,147
1977 I	630	364	3,131	4,125
II	700	563	4,155	5,418
III	587	653	4,056	5,296
IV	630	605	4,073	5,308
1978 I	770	1,040	4,631	6,441
II	743	1,138	5,175	7,056
III	575	870	4,005	5,450

Note: Data are estimates based on the reporting of a sample group and represent commitments for future lending, exclusive of any amounts committed and disbursed within the same month.

Table A-4

DELINQUENCY RATES OF REPORTING LIFE INSURANCE COMPANIES

End of Period	Nonfarm Mortgages by Type of Financing						
	FHA	VA	Canadian NHA	Conventional	Total Nonfarm	Total Farm	Total Mortgages
1970	1.34%	.95%	.84%	.74%	.85%	1.51%	.91%
1971	1.65	1.00	.94	.74	.90	1.59	.96
1972	1.85	1.08	.41	1.02	1.13	1.38	1.15
1973	1.99	.96	.79	1.56	1.57	.63	1.49
1974	1.69	1.12	.26	2.79	2.57	.71	2.41
1975	1.90	1.29	1.11	4.02	3.68	1.27	3.47
1976	2.40	1.29	.80	3.57	3.37	2.07	3.25
1977 June	2.57	1.21	2.59	3.01	2.91	3.75	2.99
December	2.09	1.40	.26	2.49	2.41	1.16	2.28
1978 June	2.20	1.12	3.10	2.13	2.10	3.02	2.20

	Nonfarm Mortgages by Property Type		
	1-4 family	Multifamily	Non-residential
1970	.89%	1.05%	.70%
1971	.93	1.01	.83
1972	1.05	1.46	.98
1973	1.01	2.66	1.23
1974	1.09	4.23	2.33
1975	1.22	5.87	3.56
1976	1.24	4.97	3.26
1977 June	1.17	4.53	2.77
December	1.34	3.94	2.10
1978 June	1.08	3.36	1.88

Note: Rates are based on dollar amounts and 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 80-85 percent of the mortgages held by U.S. life insurance companies.

Table A-5

COMMITMENTS OF $100,000 AND OVER ON MULTIFAMILY AND NONRESIDENTIAL MORTGAGES MADE BY REPORTING LIFE INSURANCE COMPANIES 1966-1978

Year or Quarter	No. of Loans	Total Amount Committed	Averages				
			Loan Size	Interest Rate	Interest Rate	Loan/ Value	Term
		$000,000	$000	by #	by $		yrs/mos
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
1972	2,132	4,987	2,339	8.57	8.50	75.2	23/3
1973	2,140	4,833	2,259	8.76	8.70	74.3	23/3
1974	1,166	2,603	2,232	9.47	9.47	74.3	21/3
1975	599	1,717	2,866	10.22	10.14	73.8	21/9
1976	1,059	3,571	3,372	9.83	9.78	73.6	21/10
1977	1,854	5,831	3,145	9.34	9.31	73.7	21/5
1977 I	343	1,115	3,251	9.49	9.50	73.7	22/3
II	470	1,385	2,948	9.29	9.22	73.5	21/7
III	532	1,686	3,169	9.31	9.27	73.8	20/10
IV	509	1,644	3,230	9.30	9.30	73.8	21/5
1978 I	502	1,905	3,795	9.34	9.26	73.7	21/9
II	676	2,157	3,191	9.45	9.47	73.1	21/7
III	557	1,552	2,787	9.72	9.76	73.1	20/2

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

Reporting companies have accounted for 50-55 percent of nonfarm mortgages held by U.S. life insurance companies over the years shown.

Table A-6

AVERAGE CONTRACT INTEREST RATES BY PROPERTY TYPE IN THE UNITED STATES COMMITMENTS OF $100,000 AND OVER MADE BY REPORTING LIFE INSURANCE COMPANIES

					1977		1978		
Property Type	**1974**	**1975**	**1976**	**1977**	**III**	**IV**	**I**	**II**	**III**
U.S. PROPERTIES*	9.41%	10.05%	9.72%	9.23%	9.21%	9.20%	9.24%	9.45%	9.75%
Conventional apartments	9.16	10.09	9.69	9.33	9.30	9.27	9.33	9.48	9.73
Office buildings	9.37	9.98	9.68	9.11	9.03	9.11	9.13	9.37	9.70
Commercial retail	9.49	9.94	9.61	9.08	9.10	9.08	9.11	9.36	9.68
Commercial services	9.53	9.96	9.64	9.32	9.26	9.28	9.28	9.42	9.68
Institutional and recreational	9.55	10.82	9.91	9.62	9.70	9.72	9.84	9.65	10.09
Industrial	9.43	10.13	9.70	9.28	9.28	9.19	9.32	9.44	9.68
Hotels and motels	9.60	10.30	10.06	9.74	9.88	9.56	9.64	9.87	10.03
CANADIAN PROPERTIES	10.28	10.92	10.95	10.44	10.36	10.43	10.31	10.59	10.57
TOTAL*	9.47	10.14	9.78	9.31	9.27	9.30	9.26	9.47	9.76

*The totals may include commitments for property types not shown separately. Averages are derived by weighting each rate by the amount of the commitment.

The reporting companies, which are the same in all periods, have accounted for over 50 percent of nonfarm mortgages held by U.S. life insurance companies over the years shown.

Table A-7

INCOME AND COSTS OF MORTGAGE PORTFOLIOS AND CONTRACT INTEREST RATES ON NEW LOANS REPORTING LIFE INSURANCE COMPANIES

	1967	1974	1975	1976	1977
Gross accrual income . . .	5.70%	7.21%	7.35%	7.51%	7.90%
Operating costs — total .	.38	.31	.29	.29	.30
Originating fees and premiums	.02	*	*	*	*
Servicing fees	.17	.11	.10	.09	.08
Home and branch office costs	.20	.20	.19	.19	.21
Net accrual income	5.32	6.90	7.06	7.22	7.60
Contract interest rate on new loans	6.31	8.94	9.28	9.55	9.31

*Less than .005 percent.

Note: Because of rounding, components may not add to totals shown.
The averages are derived from aggregates of dollar figures and reflect the weight of large portfolios, particularly in cost ratios; the average rate for total operating costs based on number of companies was 0.42 percent in 1977. For the years shown, reporting companies accounted for about 85 percent of mortgage loans held by U.S. life insurance companies. Comparable annual data are available since 1955; prior to 1955, separate data are available for farm and nonfarm portfolios.

Table A-8

INFLOW OF INVESTMENT FUNDS OF REPORTING LIFE INSURANCE COMPANIES, QUARTERLY

(In millions of dollars)

Sources of Investment Funds	1977 I	1977 II	1977 III	1977 IV	1978 I	1978 II	1978 III
Net change in:							
Ledger assets, adj.	$5,204	$4,660	$5,675	$ 5,693	$6,040	$ 5,220	$ 6,264
Cash position*	-969	666	-1,105	2,514	-1,240	569	-1,361
Mortgages - total	1,343	1,356	1,400	1,558	1,396	1,444	1,446
Amortization and partial prepayments .	812	734	724	790	817	787	758
Prepayments in full ...	523	581	628	711	536	611	601
Sales	7	41	48	57	43	46	87
Securities - total	2,640	2,843	2,527	3,477	2,472	3,539	3,740
Maturities	841	1,125	891	1,220	887	1,012	1,110
Calls	258	208	309	334	222	260	270
Outright sales	1,542	1,510	1,327	1,924	1,364	2,266	2,360
(bonds)	(685)	(780)	(575)	(960)	(628)	(1,037)	(705)
(stocks)	(857)	(730)	(752)	(964)	(736)	(1,229)	(1,656)
Sales of real estate	46	61	79	108	99	110	113
Sales and repayments of other assets	12	12	11	21	16	15	6
Net change in liability for borrowed money ...	8	84	-90	-3	40	192	51
All other sources	3	1	**	1	1	1	2
Total investment funds..	**8,286**	**9,683**	**8,496**	**13,369**	**8,825**	**11,090**	**10,261**
Net increase (-) in policy loans	-276	-332	-325	-315	-347	-456	-455
Total cash flow	**$8,010**	**$9,352**	**$8,171**	**$13,054**	**$8,477**	**$10,634**	**$ 9,806**

*An increase in cash position is shown as a negative and a decrease is shown as a positive figure. Cash position is comprised of holdings of short-term securities as well as cash and bank deposits.

**Less than $500,000.

The change in ledger assets reflects premium payments and investment income, net of benefit payments, expenses, and taxes.

Reporting companies represent about 75 percent of the total assets of U.S. life insurance companies.

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