FEDERAL RESERVE BANK OF NEW YORK



MONTHLY REVIEW

OCTOBER 1972

Contents

The Business Situation	246
The Money and Bond Markets in September	. 250
The Functions and Investment Policies of	
Personal Trust Departments	. 255

Volume 54

No. 10

The Business Situation

The broadly based expansion in economic activity appears to be continuing. Almost every sector of the economy has lately displayed either renewed or extended strength. Construction of residential housing spurted in August, after having declined somewhat in previous months. At the same time, inventory spending by manufacturers strengthened somewhat, and new orders for durable goods also advanced. Retail sales increased vigorously in July and August, although preliminary reports point to a decline in September. These developments were accompanied by widespread increases in industrial production and additional gains in employment. In September, the seasonally adjusted unemployment rate edged down to 5.5 percent, reversing the slight increase in the previous month.

The latest data indicate comparatively moderate gains in wages and prices, extending the improved performance of recent months. In August, the rate of increase in consumer prices slowed markedly after spurting in the previous month. Consumer food prices, however, posted another sizable increase in August and remain a source of some concern. The most encouraging development on the price front has been the recent slowdown in the climb of wholesale industrial prices. Between June and September, these prices increased at an annual rate that was almost a percentage point below the 4 percent or higher growth that had characterized the earlier part of Phase Two.

INDUSTRIAL PRODUCTION, ORDERS, AND INVENTORIES

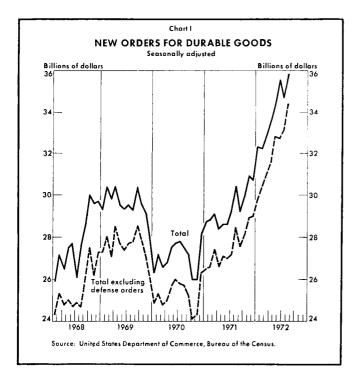
According to the latest estimates of the Board of Governors of the Federal Reserve System, industrial production expanded in August at a seasonally adjusted annual rate of 6.3 percent, rising to a level 114.3 percent of the average for 1967. Although this was the largest increase since April, it was only about half as big as the growth in the opening three months of the year. Nevertheless, the August advance was widely distributed among market groupings. Output of business equipment rebounded sharply in August from its slightly depressed level of the previous two months and grew as fast as it had in the first five months of the year.

Similarly, the production of defense and space equipment and of materials rose sizably, and there was also an increase in the output of consumer durable goods. In part, the slower expansion of total industrial production in recent months has reflected the reduced output of automotive products, which had grown at a 25 percent annual rate over the first four months of the year. While the production of motor vehicles and parts inched up in August, it remained 3 percent below its extremely high level of last April. Assemblies of domestically produced passenger cars have been fairly constant since June at a seasonally adjusted annual rate of about 8.5 million units, almost 0.5 million units less than the April peak.

Despite the slower growth of industrial production during midsummer, it still increased at an annual rate of 8.6 percent over the first two thirds of the year, much faster than the expansion in the second half of 1971. This acceleration was concentrated in the key manufacturing sector. Between last December and August, manufacturers' output rose at a seasonally adjusted annual rate of 10.5 percent, after having been virtually constant during the previous six months. Associated with this stepped-up activity in manufacturing has been a rise in the utilization of productive capacity. According to the Federal Reserve Board's quarterly estimates, the rate of capacity utilization jumped more than 2 percentage points during the first half of the year, reaching a level of 76.7 percent in the second quarter. Though this was the largest increase in any sixmonth period since the first half of 1966, the current level is still far below what it was in the mid-1960's. Indeed, throughout 1966, capacity utilization exceeded 90 percent. Other estimates of capacity utilization in manufacturing, compiled independently by McGraw-Hill from survey data, indicate that the remaining slack is widely distributed throughout the manufacturing sector.

In August, new orders for durables rose by slightly more than \$1.2 billion, a seasonally adjusted gain of 3.6 percent. Large increases in orders for household durable goods and primary metals accounted for most of the advance in that month. The August rise more than reversed the decline of the previous month, which had been mainly

the result of a drop in bookings for defense goods. While defense orders are probably no less important than other durables orders for near-term output and employment, their volatility tends at times to obscure, and to be unrelated to, the underlying economic situation. If defense bookings are excluded, it then becomes evident that new orders for durable goods have been surging throughout the year (see Chart I). Over the eight months ended in August, new durables orders other than defense swelled at over a 26 percent annual rate—more than two times faster than the growth experienced during 1971. In large measure, this upsweep was centered in orders for durable consumption goods and for producers' capital goods. Shipments of durable goods rose by almost \$0.8 billion in August, after adjustment for seasonal variation, up from the \$0.4 billion average monthly increment during the year ended in July. However, these shipments were again less than new bookings for durables, and the excess was added to the stock of unfilled orders. Between December and August, the backlog of unfilled durables orders increased at a rapid 14.6 percent seasonally adjusted annual rate. Since many manufacturers of durables only produce goods for which they have advance bookings, the steady growth in unfilled orders for durables in recent months would appear to suggest a further expansion of output in the durables



manufacturing sector over the next few months.

In line with the recent gains in production and orders, manufacturers have increased somewhat their spending on inventories. In August, the book value of manufacturers' inventories spurted \$8.2 billion on a seasonally adjusted annual rate basis. (These figures are preliminary estimates, which have at times in the past been revised substantially.) Following their slight rundown in 1971, these inventories have advanced in all but one month of the current year, with especially large increments during the summer months. It should be noted, though, that these increases in book-value inventories have not been evenly distributed among stocks at all stages of fabrication. All of the large August buildup in inventories was confined to the stocks of finished goods and of goods in process. The book value of materials and supplies declined in that month, prolonging the downtrend of the past year. The apparent unwillingness of manufacturers to add to their stockpile of materials and supplies underscores the rather cautious attitude toward inventory investment that they have displayed throughout the recovery period. Consistent with this attitude is the persistent downtrend in the manufacturers' inventory-sales ratio during the last year and a half.

Wholesale and retail trade establishments have not seemed any more eager to step up their inventory investment than have manufacturers. The book value of total trade inventories increased at an annual rate of \$5.4 billion in the second quarter, only a slightly more rapid rate than the average over the previous year. In July, the latest month for which these data are available, wholesalers expanded their stocks at a \$4.9 billion annual rate. Retail stocks, on the other hand, fell as automotive dealers' holdings of 1972 cars declined in the face of strong sales. Excluding automotive products, retail trade inventories increased at an annual rate of about \$1.3 billion in July.

PERSONAL INCOME AND RETAIL SALES

Personal income advanced \$6.9 billion in August, slightly larger than the average gain of \$6.1 billion for the first seven months of the year. An increase of \$5 billion in wage and salary disbursements accounted for much of the August rise and largely reflected hikes in average hourly earnings. More than half of the increment in payrolls occurred in the commodities-producing sector, following the \$1 billion decline in the previous month.

Seasonally adjusted retail sales were almost \$550 million lower in September than in August, according to preliminary data which have often been revised considerably in the past. A fall in consumers' automotive spending accounted for most of the September decline. Since unit sales of

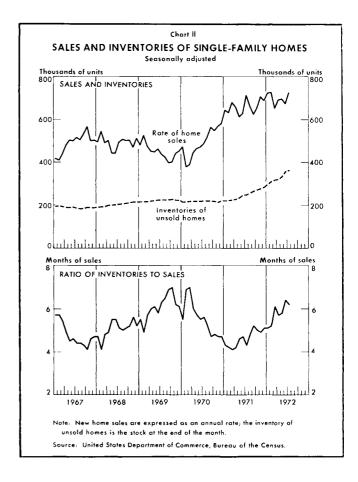
domestically produced automobiles were reported to have increased substantially in that month, the reported drop in automotive retail sales may partly reflect seasonal adjustment problems. Indeed, prior to September, total retail sales had grown at a very fast rate. Between April and August, retail sales of durables spurted at an annual rate of 21 percent, up from the 17 percent growth over the first third of the year. Also, sales of nondurables grew steadily at a rate slightly below 10 percent per annum over the first eight months of the year.

Consumption spending should receive additional stimulus in the months ahead from recent legislation that provided for a 20 percent increase in social security benefits beginning October 1. This will amount to an increase in benefits payments of about \$8 billion at an annual rate. The Congress also provided for a rise in both the social security tax rate and the base of taxable income, which will not become effective until next year. Even then, however, these increases are unlikely to offset fully the effect of the larger benefits payments on consumption spending. Moreover, the overwithholding of individuals' income taxes during the current year will considerably boost disposable income when it is refunded by the Treasury in the first half of next year. It has been estimated that withholdings for 1972 could exceed income tax liabilities by as much as \$8 billion. To be sure, only a portion of this will enter the spending stream, since some individuals have undoubtedly been treating these funds as a form of savings and, upon receipt of their refunds, will either transfer them into other forms of financial savings or perhaps use them to repay outstanding debts. But others will use their refunds to purchase additional goods and services.

RESIDENTIAL CONSTRUCTION

Residential construction activity was quite vigorous in August, as housing starts spurted 12.2 percent to a seasonally adjusted annual rate of 2.46 million units. Large increases were posted in the starts of both single-family and multi-unit housing, after some easing in the spring and early summer. Newly issued building permits reached a new record in August, surpassing the previous peak established in January 1972.

Builders added comparatively few units to their inventories of new unsold one-family homes in July. The number of unsold units rose at a 17 percent seasonally adjusted annual rate in that month. While these stocks have been increasing since the beginning of 1971 (see Chart II), they gained momentum during the first half of the year when the stock of unsold homes swelled at an annual rate of 51 percent. No comparable buildup has occurred since



these statistics were first collected in 1963. Sales of new one-family homes were at a seasonally adjusted annual rate of 724,000 units in July. Although this represented a large increase from the depressed June level, sales of new homes in July were only slightly above the average of the preceding year. With new-home sales holding rather steadily, the accumulation of unsold homes has resulted in a rise in the inventory-sales ratio. At the end of July, such inventories equaled 6.2 months of sales, up from the average ratio of 5.2 months over the year ended in June. This rising trend raises some doubts that the August level of housing starts will be sustained in coming months.

EMPLOYMENT AND PRICES

Conditions in the labor market continued to show signs of improvement in September. Reversing the movement of the previous month, the seasonally adjusted unemployment rate edged down 0.1 percentage point to 5.5 percent. This

was the same level that prevailed in both June and July and was well below the 5.9 percent rate of unemployment which had persisted on average over the first five months of 1972. Civilian employment has increased rather steadily at a healthy 3 percent annual rate over the past three quarters, and the growth of the civilian labor force has only been slightly less rapid.

The payroll survey data for September also point to some further tightening in the labor market. Slightly more than 240,000 workers were added to nonfarm payrolls in that month, a seasonally adjusted annual rate increase of 4 percent. Additions to the work force in the manufacturing, government, trade, and finance sectors accounted for most of the September advance. Since the beginning of the year, the number of workers employed in the nonagricultural sector is now reported to have grown at a 3.8 percent annual rate, more than triple the rate of increase in 1971. Even in the face of these large gains in employment, wages have adhered to a comparatively moderate pace. In September, the average hourly earnings of workers in the private nonfarm economy—adjusted for overtime hours in manufacturing and for interindustry shifts in employment rose at a 4.3 percent seasonally adjusted annual rate, about the same as the average increase between January and August.

Of the many sectors that have contributed to the speed-



up in employment growth this year, the expansion in manufacturing is particularly notable. Over the first three quarters of this year, about 450,000 additional workers were employed in this sector, a 3 percent seasonally adjusted annual rate gain, whereas last year this employment actually declined. The sizable growth in manufacturing employment is only one facet of the improvement in labor market conditions, which has been underscored by the substantial changes in labor turnover rates. Within this sector, job vacancies and the rate at which workers have been hired have soared since the beginning of the year. Similarly, the quit rate in manufacturing—the number of workers who quit their jobs during the month per 100 employees—has risen dramatically in recent months in line with the increase in job opportunities (see Chart III). This has coincided with a marked drop in the layoff rate—the number of workers laid off in a month per 100 employees. As a result, the gap between the quit and layoff rates has widened progressively over the year, reflecting the tightening in the labor market. Indeed, in August, the combination of a large increase in the quit rate and fall in the layoff rate stretched the gap between them to the widest level since August 1969.

The latest readings on inflation are fairly encouraging. Consumer prices rose at a seasonally adjusted annual rate of 3 percent in August, well below the July spurt and about equal to the rate of growth prevailing since the inauguration of the wage and price controls in August 1971. Indeed, the August performance would have been somewhat better but for the continued rapid run-up in retail food prices. The advance of services prices slowed somewhat further, while prices of nonfood commodities rose a bit more rapidly than they had in the two previous months. On the whole, these increases remained relatively modest. Perhaps the most favorable development on the inflation scene was the small increase in wholesale prices in September, when the index climbed at a 3.6 percent seasonally adjusted annual rate, considerably lower than the advance in the previous two months. Though wholesale prices of farm products and processed foods and feeds increased at a 9.6 percent annual rate during the month, this nevertheless represented a substantial reduction from the pace of July and August. At the same time, wholesale industrial prices advanced at a 2.4 percent annual rate, the slowest rise in ten months. Over the July-September period, these prices have thus increased at a 3.2 percent annual rate, an improvement relative to the persistent pattern of increases of 4 percent or more that has characterized Phase Two as a whole.

The Money and Bond Markets in September

Bank reserves and the money market were affected by special factors in September, and the Federal funds rate moved irregularly higher. The rundown in the Treasury's balances at the Federal Reserve Banks before the September 15 corporate tax date necessitated large-scale Federal Reserve action to absorb reserves. However, when legal action forced postponement of the changes in reserve requirements and check collection procedures that had been scheduled to go into effect on September 21, the Federal Reserve supplied a large volume of reserves.

The market for Government securities adjusted gradually during September to the expectation of higher rates that had emerged late in August. Interest rates on Treasury issues, which had risen abruptly at the end of August, rose further through mid-September but stabilized thereafter. Contributing to the upward rate pressures were dealer efforts to distribute coupon issues acquired in the Treasury's August financing, the Treasury's addition to the supply of one-year bills, the firm tone of the Federal funds market, and the Federal Reserve's need to absorb reserves because of a sharp rundown in the Treasury's cash balances. Investor interest appeared at the higher yields, and dealers' inventories declined. In addition, the rebuilding of the Treasury's balances at the Reserve Banks and the postponement of scheduled changes in Regulations D and J brought the Federal Reserve in as a buyer of securities. By the end of the month, a better market atmosphere prevailed and interest rates on Treasury issues were below the month's highs.

Corporate bond yields tended a bit higher during September, while tax-exempt yields were generally steady. In the face of investor resistance, corporate bond syndicates disbanded quickly, but the subsequent rise in yields was generally small. Prices rose in both markets near the end of the month on hopes of progress in the Vietnam peace negotiations.

BANK RESERVES AND THE MONEY MARKET

Money market conditions became somewhat firmer in September, with the effective rate on Federal funds averaging 4.87 percent, up 7 basis points from August. The

Federal Reserve supplied nonborrowed reserves somewhat grudgingly in relation to the growth in required reserves over the month, so that member bank borrowings from the Reserve Banks rose \$193 million to an average of \$564 million in the four statement weeks of September. Net borrowed reserves averaged \$331 million in the four weeks of September (see Table I), compared with \$193 million in the five preceding weeks.

The money market was very tight as the month opened, and Federal funds traded up to 5½ percent on the eve of the Labor Day weekend. Banks borrowed heavily at the discount window in anticipation of needs which failed to materialize. The resulting reserve excesses later pushed the Federal funds rate as low as ½ percent on Wednesday, September 6. For the week as a whole, excess reserves remained abnormally high, boosting total reserves and reserves available to support private nonbank deposits (RPD).

In the following statement week, the large excess reserve carry-over, in addition to an unusually large increase in float and the rundown in the Treasury's balances at the Federal Reserve, imparted a comfortable tone to the money market. Both the Federal funds rate and discount window borrowings dropped despite the \$2 billion of reserves absorbed on average by Federal Reserve open market operations.

The Treasury's balances at the Reserve Banks were rebuilt after the September 15 tax date. Despite injections of reserves, banks found themselves quite short of meeting their requirements late in the statement week, and borrowings at the discount window bulged to \$13/4 billion on the September 20 settlement day. Subsequently, the money market eased somewhat, in part because of the unusually low level of excess reserves at "country" banks.

The general upward movement in short-term interest rates that had begun in August persisted in September, but the pace was less rapid than in the previous month. The rate on 90- to 119-day commercial paper sold through dealers increased ½ percentage point in the third week of September (see Chart I) and closed the month at 5½ percent. Rates on most other maturities of commercial paper were raised ½ to ¼ percentage point during the

month, while those on bankers' acceptances were increased by ½ percentage point. Secondary market rates on large negotiable certificates of deposit (CDs) advanced by some 15 to 25 basis points during September.

Two large banks with floating prime lending rates linked to the cost of funds raised their rates early in the month, thereby joining the majority of banks at the 5½ percent rate established in the last week of August. Later in September, three banks announced a further increase of ½ percentage point, and at the end of the month one quoted a 5¾ percent prime rate. Most large banks moved to that rate early in October.

Growth of the monetary aggregates was quite strong in the third quarter, primarily because of the very rapid advance in July. According to preliminary estimates, the seasonally adjusted annual growth rate of the narrowly defined money supply (M_1) —adjusted private demand deposits plus currency outside banks—in September was about the same as the $5\frac{1}{2}$ percent recorded in August. This brought the growth rate for the third quarter to $8\frac{1}{2}$ percent (see Chart II), while for the nine months ended in September it was 8 percent.

The growth rate of the broad money supply (M_2) —defined as M_1 plus time deposits at commercial banks other than large negotiable CDs—increased in September to about $8\frac{1}{2}$ percent from 8 percent in August. The growth of consumer-type time and savings deposits continued strong. Over the third quarter, M_2 advanced at a $9\frac{1}{2}$ percent rate. For the first nine months of the year, the seasonally adjusted annual rate of growth was about $10\frac{1}{2}$ percent.

The adjusted bank credit proxy—which consists of daily average member bank deposits subject to reserve requirements and certain nondeposit liabilities—grew at an 11 percent rate in September, compared with 9½ percent in the previous month. During the three months ended in September, the proxy rose at an estimated rate of 11 percent, while the rate over the three quarters was 11½ percent. The growth rate of CDs slowed somewhat but remained the strongest of the proxy's components.

For the month as a whole, RPD grew at a rate of 14 percent. Part of this growth was attributable to the build-up of excess reserves, primarily in the week ended September 6.

Two developments connected with the Federal Reserve's regulatory functions occurred in September. On September 7 the Board of Governors proposed a reduction in the reserve requirements ratio on Euro-dollar borrowings from the 20 percent established in 1970 to 10 percent and elimination of the reserve-free base. A reserve requirement was imposed on these liabilities of Federal Reserve member

banks to their foreign branches in 1969 for two related reasons. The Federal Reserve wished to moderate shortterm dollar flows between the United States and other

Table I

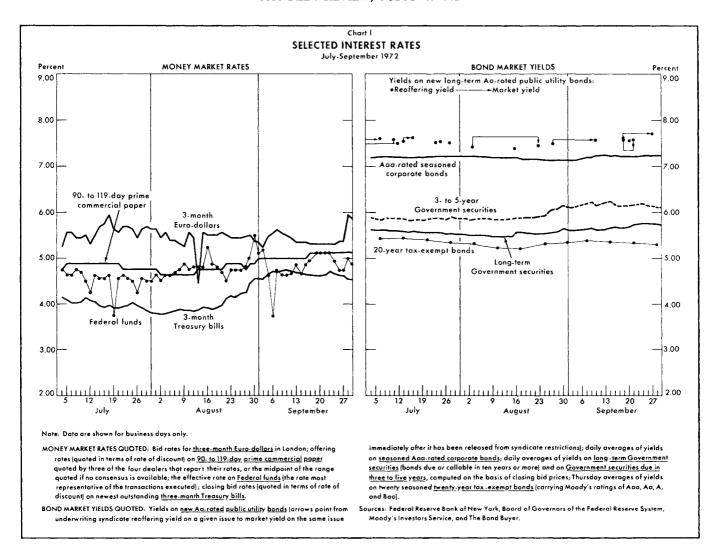
FACTORS TENDING TO INCREASE OR DECREASE
MEMBER BANK RESERVES, SEPTEMBER 1972

In millions of dollars; (+) denotes increase (-) decrease in excess reserves

Factors	Changes in daily averages— week ended				Net changes	
	Sept.	Sept.	Sept. 20	Sept. 27		
"Market" factors						
Member bank required reserves	+ 185	69	178	201	- 263	
Operating transactions (subtotal)	_ 16	+1,846	— 45 0	587	+ 793	
Federal Reserve float	114	+ 727	+ 387	— 355	+ 645	
Treasury operations*	+ 412	+1,071	— 517	— 945	+ 21	
Gold and foreign account	+ 7	19	+ 6	_ 9	15	
Currency outside banks	230	179	283	+ 704	+ 12	
Other Federal Reserve liabilities						
and capital	— 91	+ 246	- 44	+ 17	+ 128	
Total "market" factors	+ 169	+1,777	628	788	+ 530	
Direct Federal Reserve credit transactions						
Open market operations (subtotal)	7	-2,048	+ 345	+ 635	-1,075	
Outright holdings:						
Treasury securities	— 471	-1,454	+ 301	+ 705	— 919	
Bankers' acceptances	- 1	- 6	_ 5	+ 4	8	
Special certificates		+ 5	_ 5	_		
Federal agency obligations	13	- 15	— 2 0	_	— 48	
Repurchase agreements: Treasury securities	, 200	_ 473	+ 69	_ 69	75	
Bankers' acceptances	+ 398 + 25	- 33	+ 69 + 5	— 65 — 5	8	
Federal agency obligations	+ 55	_ 72	T 5		_ 17	
Member bank borrowings	+ 360	_ 688	+ 570	- 168	+ 74	
Other Federal Reserve assets†	+ 47	+ 48	+ 75	+ 83	+ 253	
Total	+ 400	-2,688	+ 989	+ 549	_ 750	
Excess reserves	+ 569	_ 911	+ 361	239	_ 220	
	Daily average Sevels				Monthly averages	
Member bank:						
Total reserves, including vault cash	33,362	32,520	33,059	33,021	32,9911	
Required reserves	32,566	32,635	32,813	33,014	32,757	
Excess reserves	796	_ 115	246	7	2331	
Borrowings	837	149	719	551	564‡	
Free, or net borrowed (_), reserves	— 41	264	— 473	_ 544	- 331‡	
Nonborrowed reserves	32,525	32,371	32,340	32,470	32,427‡	
Net carry-over, excess or deficit (_)\$	130	293	52	139	154‡	

Note: Because of rounding, figures do not necessarily add to totals.

- * Includes changes in Treasury currency and cash.
- † Includes assets denominated in foreign currencies.
- ‡ Average for four weeks ended September 27.
- § Not reflected in data above.



countries and also to lessen the attractiveness of this source of funds, which represented a potential offset to policy actions. The reserve requirement was initially set at 10 percent, but this applied only to borrowings in excess of a base-period figure. A proviso that this reserve-free base would be automatically reduced as Euro-dollar borrowings were repaid was intended to moderate the flow of such repayments in the short run. The present low level and minor activity of this account encouraged the proposed simplifications, which should have a minimal net effect.

The Board of Governors acted on September 20 to postpone the effective date of amendments to regulations concerning reserve requirements against demand deposits and bank payment for checks presented in the clearing process. Two associations, composed predominantly of nonmember banks, obtained a temporary restraining order against the amendment to Regulation J, which would have required all users of Federal Reserve check-clearing facilities to pay for checks drawn on them in immediately available funds on the day of presentment. This would reduce float and absorb reserves of banks. The accompanying restructuring of reserve requirements would release reserves to member banks, and the Federal Reserve was prepared to give nonmember banks access to the discount window for a specified transitional period. The Board decided to postpone both amendments because application of the amended Regulation J to member banks alone would have an adverse effect on the payments

mechanism, while implementation of only the change in Regulation D would have an adverse monetary policy impact.

THE GOVERNMENT SECURITIES MARKET

A substantial change in near-term interest rate expectations was under way in the Government securities market as the month opened. Market participants interpreted the firmness in the Federal funds market as indicating a less accommodative stance on the part of the Federal Reserve. At the same time, moderate foreign-account selling of Treasury bills generated concern that these accounts might become a continuing source of supply, whereas they had been an important source of demand for some months. The view spread quickly in late August and early September that a further rise in interest rates would occur sooner rather than later.

This shift in sentiment dislodged a sizable volume of securities from the trading positions of dealers and other market participants. There were notably heavy supplies in the market of the recently auctioned one-year Treasury bills, the volume of which the Treasury had just increased by \$600 million. Also, sizable undistributed positions remained in the 63/8 percent bonds of 1984, which the Treasury had issued in its August refunding. The pressure of these supplies on an unreceptive market led to a sharp rise in yields.

In addition, the Treasury bill market was unsettled in the first half of the month by the Federal Reserve's need to absorb the reserves being released by the Treasury's rundown of its balances at the Reserve Banks. The System accomplished a major part of this task through matched sale-purchase contracts. There was also a net supply of bills to the market by the Trading Desk of the Federal Reserve Bank of New York during the period from both the System's portfolio and foreign accounts. Between the weekly auctions of August 28 and September 11 the three- and six-month bill rates rose by 43 and 26 basis points, respectively.

After midmonth, the rebuilding of the Treasury's balances at the Reserve Banks and the postponement of the net release of reserves through regulatory changes necessitated sizable Treasury bill purchases by the System Account. The higher bill rates then prevailing attracted sizable investor demand as well, although investors were reluctant buyers of longer bills until the spread between short- and long-term issues had widened considerably. The spread between the three- and six-month bills, which had been 49 basis points in the August 28 auction, widened to 59 basis points on September 25 (see Table II). Over

the month the market yields on three- and twelve-month bills rose by 4 and 21 basis points to 4.64 and 5.72 percent.

The prices of Treasury coupon issues were depressed during the month by the change in market expectations, in general, and the available supply of one-year bills and the 63% percent bonds of 1984, in particular. The high yield available on one-year bills led to considerable switching into them from coupon issues maturing within four years, with a resultant upward pressure on their yields. At the same time the substantial supply of the 63% percent bonds kept yields on longer issues under similar pressure. Investor demand was forthcoming as yields rose, however, so that trading inventories were reduced and a better atmosphere appeared toward the end of the month. Three-to five-year issues yielded 6.11 percent at the close, virtually unchanged for the month, while the 63% percent bonds

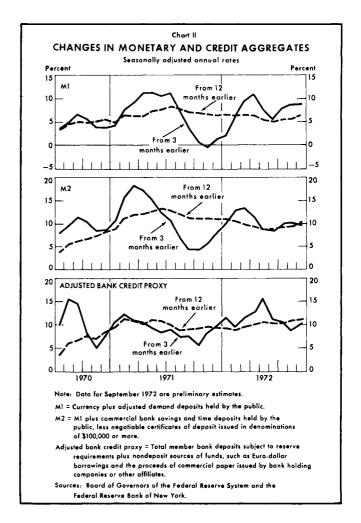


Table II

AVERAGE ISSUING RATES*
AT REGULAR TREASURY BILL AUCTIONS

In percent

	Weekly auction dates—September 1972			
Maturities	Sept.	Sept.	Sept. 18	Sept. 25
Three-month	4.569	4.759	4.633	4.644
Six-month	4.937	5.074	5.097	5.236
	Monthly a	auction dates-	—July-Septen	nber 1972
	July 25	Au 24		Sept. 26
Nine-month	4.731	5.0	40	5.346

Interest rates on bills are quoted in terms of a 360-day year, with the discounts from
par as the return on the face amount of the bills payable at maturity. Bond
yield equivalents, related to the amount actually invested, would be slightly higher.
 † This was the first auction of a 52-week bill.

of 1984 yielded 6.67 percent, up 7 basis points. The yield on this issue had been 6.81 percent around midmonth.

Government agency issues accounted for about one fourth of the securities offered publicly in September, though part of this was in the short-term sector. A \$250 million issue of capital debentures by the Federal National Mortgage Association was apparently well received at 7.40 percent, though its yield rose 4 basis points upon release.

OTHER SECURITIES MARKETS

Prices of seasoned municipal bonds showed little movement during September, but prices of older corporate issues suffered further erosion. Competitive calendars of new issues remained light during the month, but the prospective near-term supply exhibited signs of a seasonal increase. This fact reinforced investor desires for better yields on new issues, and underwriters were forced to offer more generous terms on some in order to clear the market. A better tone emerged at the end of the month, in part because of rumors of progress in the Vietnam peace negotiations.

The last Aa-rated utility bond of August had been reoffered to yield 7.50 percent and had not been well received. Price restrictions were removed on September 11, and the yield on this issue rose 8 basis points on the

resale market. This adjustment set the climate for three comparable issues brought to the market during the next week. Conditions had changed even in this interval, however, and the yields of 7.57 percent to 7.60 percent drew a tepid response. One of the four issues was released during the end-of-the-month rally. Its yield still rose to 7.62 percent, about 20 basis points above the return on most comparable issues in August. One utility issue rated Aaa by one service and AA by another was reoffered to yield 7.47 percent on September 18 and released the next day, with a consequent 5 basis point increase in yield. On the other hand, another issue rated Aaa was reoffered to yield 7.47 percent on September 21 and sold out that day.

Prices of seasoned tax-exempt securities were virtually unchanged during much of September. The Bond Buyer index of twenty municipal bond yields declined from 5.39 percent to 5.37 percent in the first three weeks. The strong rally in the closing days of the month reduced the index to 5.30 percent on September 28, 8 basis points below the last figure for August. Dealers reduced the Blue List of advertised inventories by \$170 million over the month, and most new issues seemed to be well received. Yields on these were about 10 to 15 basis points higher at the end of September than a month earlier.

NEW PUBLICATION

Glossary: Weekly Federal Reserve Statements is a new publication that gives a line-by-line explanation of the terms appearing in selected statistical releases of the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York. The booklet will be published in sections; the first is a 24-page annotated glossary of terms used in the Consolidated Statement of Condition of All Federal Reserve Banks and Factors Affecting Bank Reserves releases. Upcoming sections will deal with other Federal Reserve statements.

Glossary is available without charge from the Public Information Department, Federal Reserve Bank of New York, 33 Liberty Street, New York, N. Y. 10045.

The Functions and Investment Policies of Personal Trust Departments

By Edna E. Ehrlich*

Manager, International Research Department

Commercial banks are administrators of a large part of the nation's intangible wealth as well as a leading source of credit. Personal trust departments of the banks administer, as either trustee or agent, the largest pool of investment funds in the country today. These fiduciary funds¹ were valued toward the end of 1970 at \$292 billion, equivalent to almost two thirds of the commercial banking assets held by the same banks. They were almost 50 percent greater than the pool of fiduciary funds administered by life insurance companies (see Table I). Approximately one quarter was concentrated in just five banks, and fully half in just twenty-one banks.²

Trusteed funds constituted about 80 percent of the \$292 billion, with the banks having sole investment responsibility for a very large portion of these funds. For the rest of the \$292 billion, the banks provided investment advice. Ob-

viously, the way such sizable sums are handled could have important financial and economic implications. Yet, until quite recently there was hardly any public interest in the operations of personal trust departments and little was known about their activities.³ The first instalment of this article reviews the principal fiduciary functions of these departments and analyzes their investment policies. The second instalment will indicate the contribution to total bank income from the trust department activities and comment on some ramifications of their operations.

TYPES OF ACCOUNTS

A bank can serve individuals as a fiduciary in several different capacities. As trustee, the bank has legal title to the assets involved. Under this kind of arrangement, the bank can act as trustee (or co-trustee) of a trust, as executor (or co-executor) or administrator (or co-administrator) of an estate, and as guardian of the property of minors and certain other categories of individuals. Another kind of fiduciary relationship is the agency, in which legal title to the assets is not vested in the bank. Since World War II, increasing numbers of banks have been offering various types of agency accounts.

When a bank acts as a trustee for individuals, it does so either under a will that has provided for the establishment of a trust (a testamentary trust) or under an agreement with a living donor (an *inter vivos* trust). As trustee, a bank must administer and distribute the income and assets according to the terms of the governing instru-

^{*} The author wishes to acknowledge her indebtedness to Mr. Joseph Tierney of the Bank Examinations Department of the Federal Reserve Bank of New York, who answered innumerable questions, and to Miss Gwendolyn P. Webb, for her statistical assistance.

¹ A "fiduciary" relationship denotes a relationship of high trust and confidence. This article does not deal with the trust and agency activities, other than those connected with employee benefit funds, that banks undertake for corporate customers and local government entities. These other services, which include acting as transfer agent and dividend disbursing agent, are generally rendered in a separate department, usually called the corporate trust department.

² Data are from *Trust Assets of Insured Commercial Banks—1970*, the third such annual report prepared jointly by the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency. One large bank was erroneously omitted from the 1970 report, which should have covered 3,407 banks. Subsequently, data for the missing bank were provided (and used in this study) by type of account, but no breakdown was made available on the asset composition.

³ Considerable study had been undertaken, however, by several research committees within the Federal Reserve System.

Table I
INVESTMENT FUNDS MANAGED BY SELECTED
INSTITUTIONAL ADMINISTRATORS, 1976

Market value, billions of dollars

Administrator	
Personal trust departments	292.2
Life insurance companies	200.5
Investment advisers and companies*	75.6†
Mutual funds	47.6
Closed-end investment companies	3.0
Total	618.9‡

Note: This table excludes employee benefit funds that are administered by the corporations or the state and local governments that set up the plans, as well as the assets of self-administered foundations and educational endowments. It has been estimated that the assets of these groups totaled between \$78 billion and \$96 billion in 1969.

ment. Income of the trust is paid to the beneficiary or beneficiaries designated, and eventually the principal is distributed to the so-called remaindermen. Usually the bank alone decides how funds should be invested, but sometimes it shares this responsibility with co-trustees and others (such as relatives of the testator or donor, or the lawyer who drew the trust instrument). In formulating an investment program, a bank will take into consideration the client's needs and objectives, such as family circumstances, the client's need for income, his business interests, his other investments and investment income, and his income tax situation. Trusts for individuals reportedly have an average life of about twenty to twentyfive years when established under a will and a shorter life when established by a donor. It is unusual for a personal trust to last longer than forty years.4

A bank acts as an executor of an estate if it has been named in a will and has been subsequently appointed by a court. A court can also appoint a bank administrator of an estate when a person has died leaving no valid will, or if an executor named in a will is unable or unwilling to serve. The role of a bank as either executor or administrator is to conserve the property, convert into cash any property that is not to be passed on to beneficiaries in its existing form, pay debts and claims, and distribute the net estate to the beneficiaries as rapidly as feasible. For an average estate, the settlement process takes three to four years. Smaller estates may be settled in less than two years. Large complicated estates are sometimes under administration ten years or more because of delays in obtaining final clearance of the Federal and state estate or inheritance tax returns or because of the complexities of appraisal and liquidation.

A minor volume of trust business originates from appointment of a bank by a court as a guardian of a minor or as "committee" or "conservator" for a mentally incompetent person. In these capacities, a bank is charged with the duty of managing the person's property.

When a bank accepts a personal agency account, title to the assets is not vested in the bank and the agency terminates automatically on the death of the client.⁵ Under some types of agency accounts, the client obtains the bank's investment advice and contracts with the bank for management-related services. Such accounts, which are the only types of personal agency accounts included in the \$292 billion of fiduciary assets reported for 1970, fall into two broad groups: managing agency and advisory agency accounts.⁶

As managing agent, a bank analyzes the investments, reviews the portfolio periodically, and has full discretionary powers regarding portfolio changes. It can thus undertake transactions without prior approval of the client. Approval is usually obtained on an annual basis.

The advisory agency account is a more common type of

^{*}Excludes mutual funds and closed-end investment companies.

[†]Figure for 1969.

¹One component figure is for 1969.

Sources: "Flow of Funds", Federal Reserve Bulletin (June 1972); Trust Assets of Insured Commercial Banks—1970; Institutional Investor Study Report of the Securities and Exchange Commission (March 10, 1971); and 1972 Mutual Fund Fact Book (Investment Company Institute).

⁴ Generally, a bank that is appointed testamentary trustee remains the trustee for the duration of the trust. On rare occasions, a bank will seek to resign as trustee due to a serious disagreement with a co-trustee, with a beneficiary, or with other interested parties; or one or another of these various parties may seek to have a bank removed as trustee. In either situation, if the move is successful, the bank must render an accounting to the court or to the interested parties, and the court then names a successor trustee.

⁵ Some accounts are held by personal trust departments as agents for executors, or as agents for trustees of employee benefit funds or of endowment funds for colleges, churches, and charitable organizations. Usually these relationships entail the providing of custodial services and sometimes investment advice. Banks also act as agents for mutual funds.

⁶ Either as managing or advisory agent the bank also performs custodial services, collects income, and advises the client of exchange offerings and other developments affecting securities in his portfolio. It should be noted that there is no consensus in trust banking circles regarding the proper labels for the various agency services.

appointment. Under this arrangement, the bank does not have full discretionary investment powers but reviews the portfolio and gives investment advice. Its advice is usually accepted by the client and, although approval in writing is required, the transaction is often carried out after telephone communication, with written consent being supplied subsequently.

During the sixties, a few banks attempted to increase the attraction of their agency services to smaller investors by offering commingled investment accounts in which clients' funds were pooled. (These were distinct from the common trust funds and the commingled employee benefit funds that had been in existence for many years prior to this development and that are discussed below.) However, these programs were regarded as directly competitive by open-end investment companies (the mutual funds) as well as by securities dealers. After a legal battle lasting four years, the Supreme Court handed down a decision in the spring of 1971 that prohibited banks from offering such commingled accounts. The Court ruled that such operations violated the 1933 Glass-Steagall Act, which separated the commercial banking from the investment banking business.

Aside from the various types of trust and agency accounts for individuals, banks, particularly the larger ones, administer employee benefit trusts. Such trusts may be established by business enterprises, labor and religious organizations, educational and charitable institutions, and state and local governments. They arise mainly from pension and profit-sharing plans, but also include trusts set up under stock bonus plans as well as under plans for aiding the incapacitated and stimulating employee savings.

Life insurance companies are the banks' main competitors for employee benefit trusts. Most of the employee benefit plans with insurance companies are "insured", with the insurance company guaranteeing an annuity on the amounts paid in. Such insured funds comprise less than one fourth of total private employee benefit plan assets. Insurance companies now also manage separate "noninsured" accounts. These accounts (for which the insurance industry began to obtain permission from state regulatory agencies about ten years ago) make available a much wider latitude for investments, particularly in equities, than is possible when employee benefit funds are commingled with general life insurance assets. This has improved the competitive position of the insurance companies vis-à-vis the banks, but such separate accounts still constitute only a very small portion of total private employee benefit fund assets.

In recent years the banks have had especially keen competition for the business of administering employee benefit funds from other quarters—brokerage firms, inde-

pendent investment counselors, and open-end investment companies. Nonetheless, the overwhelming bulk of the private funds is still in the hands of the banks, in most cases as trustee.7 Banks are also investment advisers for a minor part of the assets of employee benefit funds set up by state and local governments, but apparently only a negligible portion of these assets is held in bank trust departments. The degree of responsibility given to trustee banks for investment decisions regarding the employee benefit funds varies, but some of the larger banks usually demand and obtain sole investment responsibility. In some other cases, a trustee bank may act on investment matters only at the direction of an outside party, usually an investment counselor. If a bank serves as agent, it may render investment advice or may act only on instructions from an investment counselor or from a committee or other group appointed by the corporation for this purpose.

Small banks render primarily personal trust and estate services. It is mainly the large banks that offer the more comprehensive variety of fiduciary services, including employee benefit trust and agency account services. The five largest trust departments—those of Morgan Guaranty Trust Company, Bankers Trust Company, The Chase Manhattan Bank, N.A., First National City Bank, and United States Trust Company—held 24 percent of the total trust and agency assets of \$292 billion reported toward the end of 1970 by 3,407 trust departments.⁸ The fifty-three banks that administered fiduciary assets valued at \$1 billion or more held almost 70 percent of the total.

The \$292 billion represented an increase in total assets of over 50 percent in just six years. By very rough estimate, about one half of this growth reflected net price appreciation; the other half, net inflow. Almost half of the 1970 assets was in personal trust accounts or estates, with about \$122 billion representing trust assets and only about \$15 billion estate assets (see Chart I). Employee benefit trust funds, at \$93 billion, accounted for slightly less than one third of the total. A little

⁷ Employee benefit trusts, particularly pension and profit-sharing trusts, are not very often terminated, but this may occur when a corporation is dissolved. In such cases, the funds in the trust are sometimes used to purchase annuities from a life insurance company or to make lump sum payments.

⁸ The data do not all refer to identical dates. The regulatory agencies noted in *Trust Assets of Insured Commercial Banks—1970*: "The assumption can probably be made that the bulk of trust assets were valued or reviewed during the second half of the year and mostly in December."

over one fifth of the total was held for agency accounts. The latter consisted primarily of accounts for individuals, all in the form of managing agencies or advisory agencies, with assets amounting to \$52 billion; agency accounts for employee benefit plans where the banks render investment advice totaled only \$10½ billion.

The expansion in fiduciary assets since the midsixties has been attributable more to the growth of employee benefit trust funds than to that of any other category of accounts (see Table II). Not only was the dollar increase greater, but so also was the rate of growth (see Chart II). Total agency accounts registered about the same dollar gain as personal trusts and estates, but the agency accounts grew at a considerably more rapid rate. However, this was substantially less than the growth rate of employee benefit trusts.

The increase in employee benefit fund assets represented primarily an enormous surge in pension funds; these now account for about 90 percent of the \$93 billion total. Only 10 million persons were covered by private pension plans in 1950, but today the number is more than 30 million. It is anticipated that by 1980 the number will exceed 40 million. This rapid expansion will be the principal factor swelling pension funds to what is expected to be a multiple of their current dollar amount—even on the assumption of no further price inflation. Several other factors will contribute to the growth in funds. The raising of pension benefits in relation to wage and salary levels and earlier vesting of pension rights are clear-cut trends. Larger inflows will also result if there develops an increase in "portability" arrangements, under which pension rights can be transferred from one place of employment to another (within an industry, for instance). Greater inflows will also occur if pension fund liabilities that have accrued in connection with past employee services are funded more rapidly.

⁹ Daniel M. Holland, *Private Pension Funds: Projected Growth* (National Bureau of Economic Research, 1966).

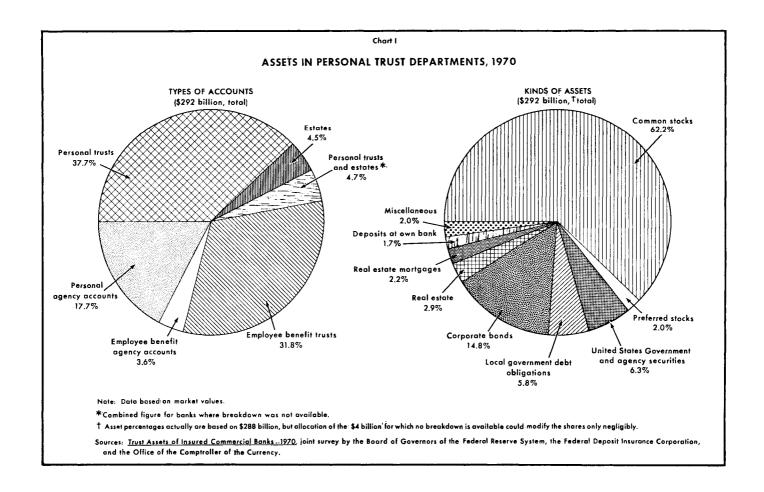


Table II
ASSETS IN PERSONAL TRUST DEPARTMENTS, BY TYPE OF
FIDUCIARY ACCOUNT, 1963-70

Market value, billions of dollars

Year	Personal trusts and estates*	Employee benefit trusts	Total trust accounts*	Total agency accounts†	Grand total
963	101.2	43.0	144.2	n.a.	n.a.
964	105.5	50.3	155.8	35.0	190.8
965	115.0	59.6	174.6	40.0	214.6
966‡	113.0	61.5	174.5	47.0	221.5
967	126.2	72.9	199.1	54.2	253.3
968	138.4	84.3	222.7	60.0	282.7
969	132.8	86.4	219.2	60.9	280.1
970	137.1	92.8	229.9	62.3	292.2

Note: Through 1966, figures are estimates for all commercial banks, Later figures are from surveys of insured commercial banks; noninsured banks hold only a very small volume of fiduciary assets.

‡Break between 1965 and 1966 in some series; see foregoing footnotes.

Earlier vesting, increased portability, and more rapid funding have all been the subject of debate during recent Congressional sessions.

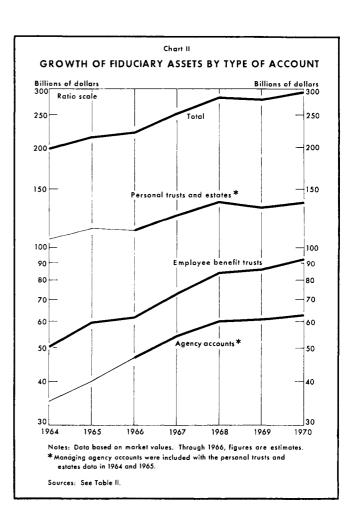
INVESTMENT POLICIES

The investment of funds a bank holds as a fiduciary is generally subject to two overriding categories of restraint. One comprises the stipulations and restrictions contained in the specific trust instrument, will, or agency agreement. The other consists of the guidelines emanating from the "prudent man rule" that, in one form or another, must be followed for trustee accounts in forty-five of the fifty states. This rule requires, in essence, that a trustee make investments "only in such securities as would be acquired by prudent men of discretion and intelligence in such matters who are seeking a reasonable income and the preservation of their capital". Legislation is being con-

sidered at the national level to provide for explicit imposition of the rule for all employee benefit fund administrators.

Even when a trust instrument gives a bank great freedom of investment decision, the bank must be guided by the prudent man rule. The rule itself leaves a great deal of room for interpretation, as attested to by conflicting court opinions in past decades concerning the permissibility of investing trust funds in corporate equities. In most states where the rule is incorporated into legislation, it is "permissive" in nature, being in fact only a general guideline. A few states, however, still have a "strict" or "mandatory" rule; investment boundaries are spelled out in terms of kinds of investments, and quantitative limitations are imposed on certain of these investments.

The prudent man rule confronts a bank with simultaneous responsibilities and challenges in requiring the bank to preserve the capital entrusted to it and to employ



^{*}Through 1965, includes minor amount of managing agency accounts.

[†]Through 1965, consists of advisory agency accounts only; thereafter, includes also managing agency accounts. In 1970, personal agency accounts comprised 83 percent (\$51.8 billion) of the total, and employee benefit agency accounts only 17 percent (\$10.5 billion).

Sources: 1963 through 1966, Office of the Comptroller of the Currency; 1967, Commercial Banks and Their Trust Activities: Emerging Influence on the American Economy, Committee on Banking and Currency, House of Representatives (July 9, 1968); 1968 through 1970, Trust Assets of Insured Commercial Banks.

¹⁰ This is the wording of the rule used in the statutes of a number of states. In three states there are no trust investment regulations, and in two states regulations limit investments by trustees to fixed-income securities:

these funds in such a way as to produce the best return obtainable with safety. Within the past few years, the latter objective has come increasingly to the fore. This development was initially stimulated by the demands for greater yields made by corporations that had established pension plan trusts. However, growing numbers of individuals who have agency accounts or who are beneficiaries of personal trusts have been making similar demands.

PERSONAL TRUST FUNDS. Personal trust funds constituted about 42 percent of the fiduciary assets at commercial banks in 1970,¹² a larger share than any other category, although the banks probably do not hold much more than half of all such accounts and a roughly similar portion of all such assets.¹³ While the banks' sole corporate competitors for these funds are the approximately fifty nondeposit trust companies (only two of which are sizable) that still exist in the United States, persons establishing trusts very often choose individuals as the trustees—usually attorneys, relatives, or friends.

In investing personal trust funds, a bank must conform with all the stipulations and restrictions contained in the individual trust instrument. Occasionally the instrument limits investments to certain types or prescribed percent-

11 The American Institute of Banking put the issue into sharp focus in a 1954 publication, *Trust Department Services: Trusts I.*"A trustee is responsible for making such investments as a

ages of securities, or to specific issues of a named concern, and if the bank invests in securities that do not conform with these specifications, it may be liable for any losses incurred. The wider the freedom of choice regarding investment decisions given to the bank as trustee, the more must the bank rely for guidance upon the prudent man rule. In a few states, investments for so-called legal trusts must conform with the "legal list" issued in each state for the guidance of fiduciaries. These often limit the percentage of an account that can be invested in common stocks (50 percent is the maximum in some states) and specify which types of equities are acceptable. The number of such trusts has trended steadily downward, however. In 1969, only 5 percent of the personal trust accounts (and 4 percent of such assets) at fifty large banks surveyed for a special Securities and Exchange Commission (SEC) study was subject to legal lists.¹⁴

The portion invested in equities for accounts where the trustee has complete investment discretion has generally been much higher during the last two decades than 50 percent. During the 1950's, it was a common practice for banks to maintain guidelines limiting investment in equities to about 60 percent of the value of a personal trust. A survey by the American Bankers Association indicated that in 1958 common stocks accounted for about 62 percent of all bank-administered personal trust assets. By 1968, however, the figure had risen to approximately 70 percent (see Chart III), while at banks with trust assets of more than \$1 billion the share was almost 74 percent. Some of the particularly aggressive institutions had instituted policies designed to raise ratios still higher, and some trusts at the largest banks were fully invested in equities. Toward the close of 1970, following the prolonged 1969-70 bear market, the equities portion at all banks had declined to 66½ percent, and at the large banks, which altogether held 57 percent of all personal trust assets, it was down to about 70 percent. However, at some of these big banks the proportion of stocks in personal trust funds over which the banks had sole investment authority still averaged between 70 and 80 percent.

In earlier years, banks had tended to set up investment guidelines in terms of such broad asset categories as common stocks and fixed-income securities, the amounts being determined in accordance with the goals of the trust and the needs of the various beneficiaries. For the past several

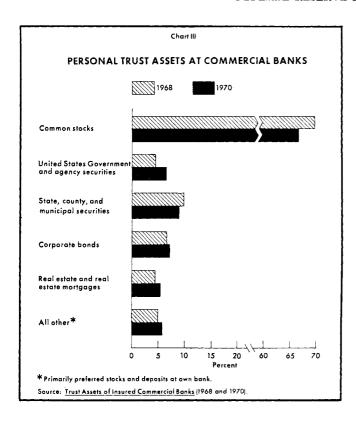
[&]quot;A trustee is responsible for making such investments as a prudent man would make for his own property, having primarily in view the preservation of the estate and the amount and regularity of the income to be derived. In retaining or in selecting investments, a trustee may exercise the caution a prudent man would exercise when a primary consideration is preservation of the funds invested.

The trust institution, however, not only would fail to perform its duty but would soon lose its trust business if it failed to employ the trust property in such a way as to produce the best return obtainable with safety under the conditions prevailing at the time and within the restrictions imposed by the law and by the trust instrument. This is indeed a heavy responsibility, but frequently (perhaps usually) it is a chief object to the creator of the trust. Accomplishment of this result is a service which the trustee represents itself as being able and willing to render; it is a definite undertaking from which the trustee cannot retreat."

¹² The 42 percent represents the sum of 37.7 percent, reported as "personal trusts", and 4.2 percent, the portion of the reported "personal trusts and estates" figure obtained by applying to the latter the share of the total of reported "personal trusts" and reported "estates" represented by "personal trusts".

¹³ According to a special analysis by the Internal Revenue Service, 61 percent of the personal trusts that filed income tax returns for 1962 was administered by banks and trust companies. These trusts accounted for 60 percent of the total income received. The United States Treasury Department, Internal Revenue Service, Fiduciary, Gift, and Estate Tax Returns (filed during calendar year 1963).

¹⁴ Institutional Investor Study Report of the Securities and Exchange Commission (March 10, 1971).



years, the emphasis has been more on the specific nature of the stocks and bonds, with guidelines characterizing stocks as "defensive" stocks, "quality growth" stocks, "special situation" stocks, and stocks of companies with "outstanding technical competence". If the income beneficiary of a trust is, for example, a widow who must live on the income of the trust, "defensive" securities may be considered most desirable, but if the income beneficiary is a business executive earning a very large salary, "growth" stocks may be purchased. As a consequence, equities holdings cover a much broader range than previously.

Because of the increasing demand by trust beneficiaries for "investment performance", some banks have begun to ask their customers to redefine their investment objectives in more specific terms than the banks previously requested. If customers insist and can afford the risk, and if the trust instrument provides wide enough investment latitude, or if written approval is obtained, investments will be made, usually to a maximum of 10 percent, in special situation or other high-risk stocks.

The proportion of stocks held for personal trusts at the smallest banks toward the end of 1970 was much less than at the largest banks (44 percent as against 70 percent), and the percentages increased with each step upward in bank-size group (see Chart IV). These differences were presumably attributable at least in part to the progressively larger size of accounts as bank size increases. In 1970, the average personal trust account at banks with less than \$10 million in fiduciary funds was only \$36,000. The average account was approximately eight times larger, amounting to \$300,000. Part of the wide spread in the equities proportions, however, probably reflects a difference in investment expertise.

At the smaller banks, and implicitly for the smaller accounts, the investments other than common stocks include two categories of assets that are quite sizable. Holdings of United States Government securities accounted in 1970 for between 8 and 15 percent of total portfolios at the three groups of smallest size banks, and real estate and real estate mortgages (the former valued at more than twice the latter) accounted for between 12 and 18 percent. At the larger banks, holdings of tax exempts are a more important category, presumably reflecting the fact that these banks have many very sizable accounts whose beneficiaries can derive tax benefits from such holdings. Interestingly, corporate bonds, which are the second largest type of investment for employee benefit accounts, are of only minor significance for personal trust accounts, no matter what the size of the bank.

As with stockholdings, a step-like progression by banksize group was very much in evidence also for the other types of assets. The two major exceptions, the portfolios of United States Government securities and of corporate bonds at the second largest bank-size group, look suspiciously as if they may reflect data-collection problems. Not only do the figures interrupt the relatively smooth sequence shown by other data on Chart IV, but they are equally out of step as indicators of year-to-year fluctuations in portfolio composition, evident on Chart V.

The share of personal trust assets held in common stocks declined between 1968 and 1970 at all six size groups of banks, perhaps partly reflecting the distribution of assets in new accounts. At the second and third largest of the size groups, the net decline was very small (see Chart V), suggesting that fairly sizable purchases had been made even during the bear market, but at banks holding fiduciary assets of more than \$1 billion, the net decline was one of the largest registered (4 percent).

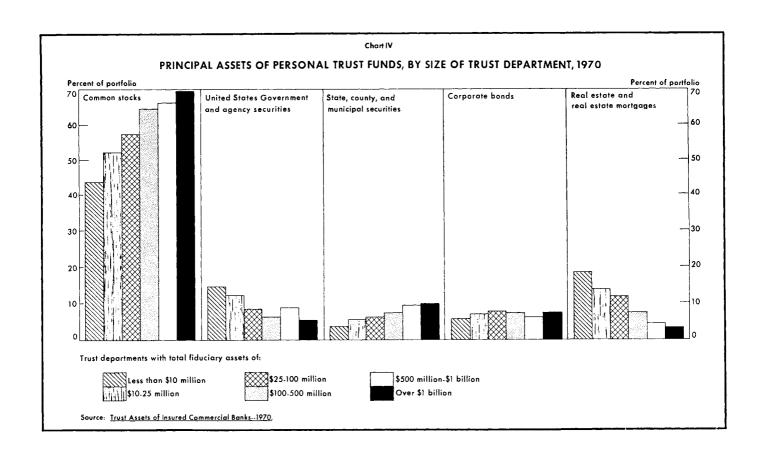
 $^{^{15}\,\}mathrm{At}$ least one bank has publicized its willingness to accept accounts of as little as \$5,000.

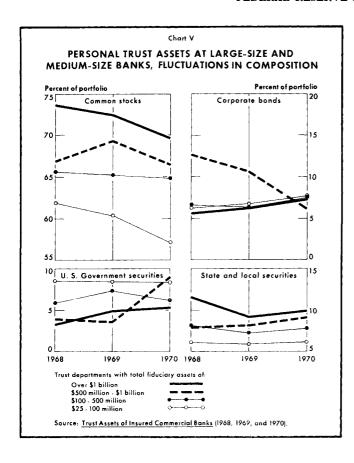
It would be of considerable interest to know how liquid asset holdings changed during the 1968-70 period. The data available are not sufficiently detailed to give a complete picture, but they do seem to indicate significant growth. Additions to the Treasury bill holdings probably constituted the principal increase. In the comprehensive trust department data gathered by the regulatory agencies, such holdings are not separated out from longer term Government securities. Despite the sharp drop in Government bond prices between 1968 and 1970, total holdings of Government securities rose at all but one of the size groups of banks, and primarily at the larger bank-size groups (see Chart V). Detailed data on pooled trust funds (discussed in the following section) show that almost all of a very substantial 1968-70 increase in Government securities held by these funds consisted of Treasury bills. This suggests that most of the rise in total personal trust fund holdings of Government securities also represented Treasury bills.

Other liquid holdings are contained within a group of assets that the regulatory agencies asked the banks to report as one "miscellaneous" figure. Included are commercial paper, master notes (a variant of commercial paper described below), and unsecured notes, as well as various nonliquid items. 16 While the miscellaneous figure was not substantial for any group of banks during 1968-70, the share it comprised of total personal trust funds increased for every size group in both 1969 and 1970. These increases were most likely attributable primarily to the liquid components, with the information available for pooled accounts pointing to a rise principally in commercial paper and master notes.

In addition to the above income-earning investments, some portion of personal trust funds is always maintained by each trust department in the form of deposits at its own bank, all but an insignificant amount in noninterest-bearing deposits. These deposits represent undistributed and uninvested principal, undistributed and

¹⁶ These constitute, mainly, notes secured by other than real estate, judgments, accounts receivable, jewelry, automobiles, and livestock.



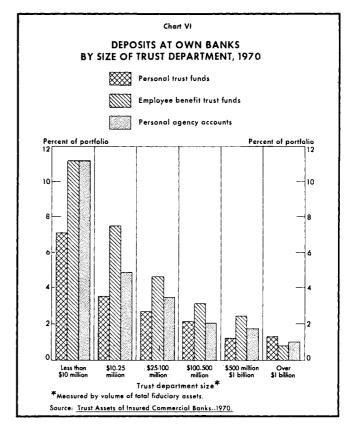


uninvested income, and, in many instances, "float" connected with securities transactions. Chart VI shows that the portion of personal trust fund assets held in this form in 1970 decreased with each step upward in bank-size group—except at the very largest banks, where the share rose slightly. The portions had increased between 1968 and 1970 at all of the six groups of banks but the second largest size group. The biggest gain, 0.9 percent, occurred at the smallest banks. At the largest banks, the rise was only 0.4 percent, but this expanded the portion held in deposits by almost 50 percent. Prior to the 1969 and 1970 increases, the share held at this group of banks had been smaller than at the size group below.

Common trust funds. A small percentage of the approximately \$122 billion of personal trust assets is held in common trust funds. Banks have been pooling in common trust funds some funds from smaller personal trust accounts since the 1930's, in an effort to reduce the costs of managing small funds and also to permit wider diversification of investments for such funds. In more recent years, to improve investment flexibility, "single purpose funds" have

been developed. All states now have statutes that authorize personal trust funds to be put into a pool if the trust instrument for a particular account does not prohibit it and if all the investments of the pool are appropriate for investment by each participating account. The funds must be administered in accordance with regulations established by state banking authorities and with Regulation 9 of the Office of the Comptroller of the Currency. Since the results achieved by these funds are made public each year by the Comptroller, many banks regard them as showpieces for their personal trust activities.

By the end of 1970, common trust funds had been established by 692 banks, approximately one fifth of the banks that conduct trust operations. The total number of these funds—1,678—was almost 2½ times the number seven years earlier, when the Comptroller removed the \$100,000 ceiling that had previously limited each participation. Currently, aside from any limitations that may be imposed by state laws, the only legal constraint on the amount that can be placed in a common trust fund for any individual trust account is a provision that no participating account may hold more than 10 percent of a common trust



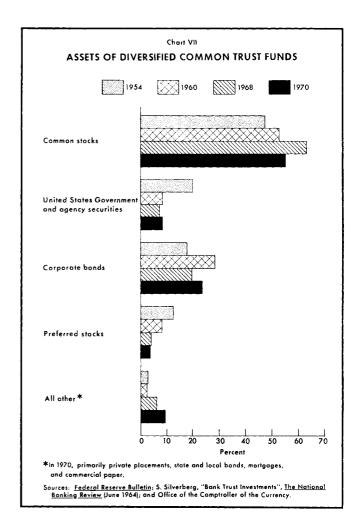
fund's total assets. Total common trust fund assets at the end of 1970 amounted to \$10.1 billion, equal to 9.3 percent of all personal trust account assets and encompassing close to 412,000 participations. (If one account is invested in more than one fund, this counts as more than one participation.) Most of the funds were at the smaller banks, but a major portion of the assets was at the larger banks. This was in part a result of the difference in the size of the participations; the average was only \$12,000 at banks with commercial banking assets of less than \$100 million, while at banks with assets of \$1 billion or more, the average participation was \$36,000. Of course, many participations are much larger. Indeed, some of the big banks aim at placing in common trust funds any personal trust account with assets totaling less than \$250,000.

There are four broad categories of common trust funds: diversified or balanced, equity, fixed income, and tax exempt. Some funds are very specialized, consisting, for example, of only corporate bonds, "growth" stocks, "income" stocks, real estate mortgages, or "legal" investments. Prior to 1970, diversified funds held more assets than any other type of common trust fund, but at the end of 1970, equity fund assets (accounting for 31 percent of the total) slightly exceeded diversified fund assets for the first time. Tax-exempt fund assets amounted to only 21 percent of the aggregate, but this was somewhat more than the assets held by fixed-income funds.

Even though diversified common trust fund assets at the end of 1970 constituted less than 3 percent of the banks' total holdings of personal trust assets, it is worth examining the changing composition of these diversified funds during the preceding two decades. Detailed data for individual personal trusts do not reach back that far, but the developments in diversified fund portfolios are probably indicative of changes that occurred in banks' investment policies for personal trusts. As can be seen on Chart VII, in 1954 common stocks accounted for 47 percent of diversified fund portfolios, while holdings of United States Government bonds, representing 20 percent, were

also quite significant. By 1968, however, common stocks had risen to almost two thirds of the portfolio, and Government securities had fallen to a mere 7 percent. Preferred stocks, which had been the fourth largest component in 1954, also slipped sharply. Corporate bonds, on the other hand, despite only a small increase, rose from third place to second place. Between 1968 and 1970 (when direct comparisons can be made with total personal trust account assets), component movements were generally in the same direction for total personal trust accounts as for diversified common trust funds.

EMPLOYEE BENEFIT TRUST FUNDS. Employee benefit trust funds accounted for 32 percent of the banks' fiduciary assets in 1970, and it is estimated that all but about one tenth of this consisted of pension funds. Total private noninsured pension funds in the country represented



¹⁷ Banks too small to find it feasible to set up common trust funds have the possibility in three states of investing fiduciary funds in an investment company organized for the specific purpose of pooling funds held by corporate fiduciaries. In New York and Ohio the respective state banking associations have organized such companies under specific authority granted by state legislation. In Georgia, legislation enacted only two years ago granted such authority to private banks. The Congress is currently considering legislation that would further broaden the opportunities for pooling, by explicitly permitting banks affiliated with one another to contribute in their fiduciary capacities to a common trust fund maintained by one of the banks for the entire group.

a pool of assets at the end of 1970 with a market value of \$105 billion. By the end of 1971, the figure had risen to \$125 billion. In view of this massive volume of funds already accumulated and their anticipated further growth, it is not surprising that there exists intense competition for the management of these funds. Banks apparently still hold about four fifths of the total (pension funds probably accounted for approximately \$84 billion of the trust assets held by banks in 1970), but an increasing number of corporations are choosing nonbank managers. 18 A 1971 survey covering 714 companies found that in 1965 as many as 75 percent of these companies had had pension plans managed by banks, but by 1970, despite a growth in the total number of plans (some companies had more than one), only 68 percent had plans managed by banks. Life insurance companies, which had been pioneers in corporate pension fund management during the 1930's, had also lost ground, the comparable percentages declining from 38 percent to 35 percent. Over the same period, the number of companies using independent investment counselors as fund managers had increased from 5 percent to 22 percent; those using brokerage houses, from 1 percent to 8 percent; and those using open-end investment companies, from 1 percent to 3 percent.19

One reason banks still hold about 80 percent of private noninsured pension fund assets is that they have managed to retain a very high proportion of the largest funds. Among the 714 companies referred to above, pension trusts of \$50 million or over had total assets in 1970 of \$50 billion (89 percent of the \$56 billion of noninsured assets encompassed by the survey), and banks were the managers for the overwhelming majority of these accounts. However, the survey provided strong evidence of the growing tendency, particularly among the bigger business firms, to seek greater diversity of management.

This increased mobility of pension funds reflects the heightened desire to obtain a better return on pension fund investments as measured by, primarily, capital appreciation. It has been estimated that by improving the annual yield on pension fund assets by even ½ percentage point, an investment manager enables a corporation to reduce the costs of a pension plan by 4 to 6 percent a year. 20 It is no wonder, then, that with alternative investment managers increasingly available, corporate treasurers have become much more willing to switch managers and are using various means to spur them to better performance. There has been, for example, a rapid growth in the number of firms that parcel out pension funds to several managers and review performance results every few months. Many of these firms are, in addition, informing managers of the better achievements of others. Sometimes managers who are regarded as disappointing are being dropped after only two or three years.

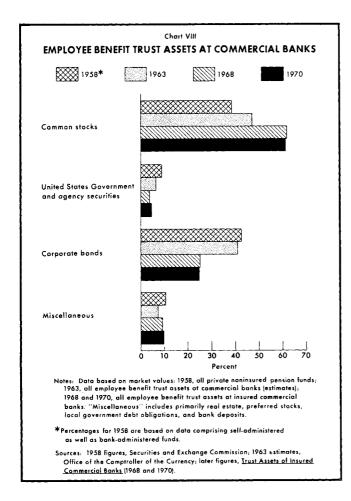
Partly in response to the intense competitive pressures and partly because of a considerable transformation during the past two decades in pension fund investment philosophy, the composition of pension fund assets has undergone dramatic change. Initially, pension fund investments had been guided by a sinking fund type of calculation, based on the concept that a specific rate of earnings was required to enable future fixed liabilities to be met. Eventually, however, it became a general assumption that benefits would be undergoing adjustment to allow for increases in the cost of living as well as for other developments, and that as a consequence it was impossible to know exactly what payouts would be required in any future year. Therefore, the goal now is to employ pension funds as productively as possible on a long-range basis.

Since the 1950's, the asset composition of pension funds has shifted heavily from fixed-income securities to equities. In 1958 (the first year for which detailed data are available), common stocks accounted for only 39 percent of the market value of all private noninsured pension funds (see Chart VIII); the figure for bank-managed funds alone was probably somewhat less. By 1963 (the first year for which reliable trust department estimates are available), the proportion of bank-managed employee benefit trust funds in equities had risen to 47 percent (and that for all private noninsured pension funds to 49 percent). By 1968, there had occurred a further jump to 62 per-

¹⁸ A 1970 survey of 675 of the country's largest nonfinancial corporations found that at the beginning of the 1960's these companies had decided in favor of banks 67 percent of the time when choosing new pension fund managers; in 1969-70, however, they chose banks in only 39 percent of the cases. Louis Harris and Associates, Inc., Large Corporations and Their Pension Funds: 1970 (New York, 1971).

¹⁹ These percentages total more than 100, owing to the use by some firms of more than one type of manager. McGraw-Hill Publications Company and Standard & Poor's/InterCapital, Inc., Pension Fund Management Survey (September 10, 1971).

²⁰ To maintain a pension plan in accordance with actuarial principles requires current recognition of the accruing costs of commitments for future payouts. Assumptions must therefore be made regarding the level and structure of retirement benefits, mortality rates and trends, employee turnover, years of employee service, ages at which employees will leave, and earnings from fund investments. In many cases, corporations vary their pension fund contributions from year to year as a technique for averaging corporate income.



cent. Over this same ten-year period, the share of bank-managed assets in the major types of fixed-income investments, namely, United States Government securities and corporate bonds, had plunged from more than 50 percent to only 29 percent. As the chart shows, asset composition at the end of 1970 was little changed from the 1968 distribution. The percentage of portfolio in common stocks decreased slightly, owing mainly to the decline in equities prices that lasted throughout 1969 and well into 1970. The share held in corporate bonds continued to contract, but the decline was very small. Meanwhile, the share consisting of Government securities rose slightly, as did the share of miscellaneous assets.

Three banks accounted for over one third of the \$93 billion of employee benefit trust funds managed by banks in 1970, and just twenty-two banks (almost all of which held employee benefit assets in excess of \$1 billion) accounted for fully 75 percent. This was a significantly

greater concentration than characterized trust departments' other fiduciary holdings (see Chart IX). Because of this heavy concentration, the composition of employee benefit trust assets held at these large banks dominates the allocation of total employee benefit trust assets shown on Chart VIII.

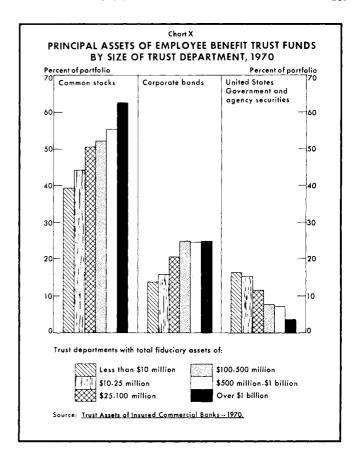
As with personal trust assets, there is a distinct relationship between the size of a trust department and the employee benefit trust investments at that department. Chart X exhibits an almost uninterrupted step-like movement, the direction depending upon the type of asset. Toward the end of 1970, only 39 percent of the employee benefit trust assets at the smallest departments was invested in common stocks; at the biggest departments the proportion was more than half again as large. Similarly, holdings of corporate and other non-Government bonds amounted to 14 percent at the smallest departments, while the proportion at the biggest departments was almost twice this figure. In contrast, assets invested in United States Government and agency securities accounted for 16 percent at the smaller departments, four times the percentage reported for the biggest departments.

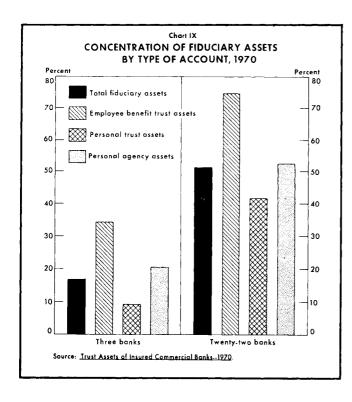
The wide disparity in asset composition as between funds held by smaller banks and those held by larger banks is probably attributable in substantial measure to two factors. The first reflects the fact that bank trustees must make allowance for the specific requirements of individual accounts. Since the employee benefit fund accounts at smaller banks are generally those of smaller firms, the principle of minimum risk investment is probably deemed advisable for most of the accounts. A pension plan for the employees of a large corporation that is well established and that presumably could meet pension plan requirements under prolonged adverse business conditions can be invested more "liberally"—that is, with greater short-run risk taking-than the funds for a plan set up by a smaller firm. Moreover, if a corporation maintains a profit-sharing plan but no pension plan, which is often the case for smaller firms, investments are generally more conservative than when a profit-sharing plan is coupled with a pension plan, as at many larger firms. The second factor accounting for the disparity in asset composition is the more limited degree of investment expertise at the smaller banks.

Although the shift by bank trustees to equity investments was rather slow in the fifties and early sixties, the dramatic performance of many mutual funds during the second half of the sixties precipitated a demand by corporate executives for an improvement in bank trustee performance beyond the 6 to 7 percent previously regarded as a good return. This stimulated a more rapid shift, and

by 1968 apparently a majority of the large banks were regarding 60 to 65 percent as an appropriate equities allocation for the bulk of their pension fund accounts. A number of the banks, however, were aiming for 80 percent for most of their accounts and some even for 100 percent for the biggest accounts. In 1969, at banks that held total fiduciary assets of more than \$1 billion each, the proportion of employee benefit trust assets in equities rose slightly, measured at market value, despite the widespread extended decline in stock market prices—suggesting that many of the banks made net purchases of common stocks that year. In 1970, the percentage fell back to the 1968 level (see Chart XI). At banks with fiduciary assets of between \$500 million and \$1 billion, there was a rather similar development—a rise in 1969 and a decline the following year, but to a percentage even lower than in 1968. Banks comprising the next two smaller size groups, however, showed declines in both 1969 and 1970.

At the close of 1970, the goal at the larger banks for the proportion of employee benefit funds typically to be held in equities seems still to have varied within almost the same broad range as two years earlier. Moreover, 42 percent of 675 large corporations covered in a survey taken in the late summer of 1970 expected to have between 70 percent and 100 percent of their pension fund





assets in equities in 1975, a substantial increase over the 33 percent already reporting such large proportions.²¹

As with equity holdings, during the two years ended 1970 the proportions of corporate bonds in the employee benefit fund portfolios of the two groups of banks with the largest trust departments again showed almost parallel movements (see Chart XI). In 1969, when bond yields were rising steeply and prices falling sharply, there was only a small percentage decline (measured at market prices) for each of the two groups of banks, suggesting there might have been some shifting into this type of asset when yields seemed attractive. During 1970, when prices rose somewhat and yields fell, there was only a slight percentage rise for each group, seeming to indicate there was little interest in adding to this type of asset that year. At the two medium-size groups of banks, however, the shifts into corporate bonds were quite substantial over

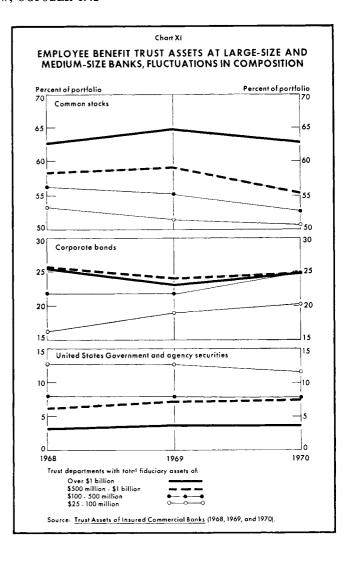
²¹ Louis Harris and Associates, Inc., op. cit.

the two-year period, roughly offsetting the declines in equity holdings.

The variations in portfolio percentages in United States Government and agency securities were, in general, considerably smaller than the fluctuations in percentages held in equities and corporate bonds. Nonetheless, the patterns at the two largest size groups of banks were again quite similar to each other, with the data suggesting relatively sizable purchases in 1969. At both groups of medium-size banks, however, and at one of the two small-size bank groups, there was some decline over the two-year period. Still, since this was a period when Government bond prices dropped sharply, small percentage declines do not rule out the possibility that additions were made to Government securities portfolios. It seems likely there was a widespread buildup of Treasury bill holdings for liquidity purposes.

While banks differ in their choices of short-term liquid instruments for employee benefit accounts, among those favored during the past decade, in addition to United States Treasury bills, were Federal agency obligations and commercial paper of finance and other companies. Around 1965, however, the master note (also known as demand note, variable amount note, or credit arrangement) was introduced as a new short-term investment vehicle, and it has become very popular as a temporary investment. The master note enables credit to be made available through direct negotiation by the trust department, usually to a nationally known finance or industrial corporation that is a customer of the bank. The trust department agrees to lend to the borrowing corporation either a specific or a maximum amount, for either a given period of time or on a day-to-day basis. The interest rate on the master note is usually, perhaps always, the going rate on the borrower's 180-day commercial paper. Many trust departments apparently regard these notes as a means for earning the highest yield possible on a short-term basis and consider them more liquid than Treasury bills. The notes are for large amounts and are participated among many accounts. Probably investments in master notes account for most of the rise that occurred between 1968 and 1970 at five of the six size groups of banks in the miscellaneous figure that is a component of the employee benefit funds data collected by the regulatory agencies. Master notes and Treasury bills presumably comprised the bulk of the accumulation of liquid assets for employee benefit funds at the larger banks. On occasions during the past few years when investment officers at these banks have taken a cautious view of the stock market, the liquid component of some accounts has risen as high as 15, 20, or even 30 percent.

The share of employee benefit fund assets in deposits



in own bank increased between 1968 and 1970 at every group of banks except the largest size group. The percentage held in such deposits declined significantly with each step upward in bank-size group (see Chart VI). At the smallest size group, deposits accounted in 1970 for more than 11 percent, compared with less than 1 percent at the largest size group. There probably are several reasons for this substantial spread. First, it is more difficult for banks with relatively small balances to find investment outlets for short periods. Second, the pressure from corporate managements for better performance for pension fund trusts is presumably greater at the bigger banks than at the smaller ones, since the former hold the funds of the larger enterprises with the most sophisticated financial officers. Third, the big banks may well be more sensitive than

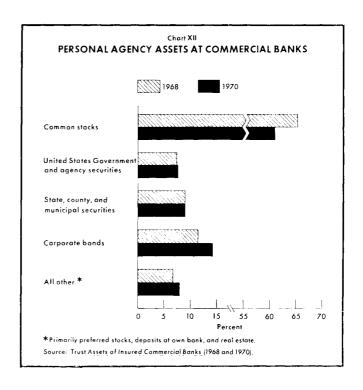
smaller banks to competition for the management of the pension funds. Finally, the big banks have the greater expertise, manpower, contacts, and machinery for putting funds to the most productive use quickly, even for short periods of time. The share of employee benefit funds portfolio in deposits at five of the bank groups is significantly higher than the share of personal trust accounts, presumably reflecting mainly the relatively larger amounts disbursed as payments to pension fund beneficiaries. However, at the largest banks the employee benefit deposit share is lower than that for personal trust funds. This probably attests to the banks' efficiency in handling short-term investments.

Commingled funds. A significant portion of the employee benefit trust assets is held in commingled funds. During the 1950's, in order to reduce administrative costs, banks began establishing such funds, in which they pooled the assets from small pension and other kinds of small employee benefit trusts. Today, the large banks have many specialized commingled funds, and an account may be split among two or more of them. The assets of some of these commingled funds may carry above-average risk-for example, "special situation" funds, which invest in securities offering unusual growth possibilities. These more speculative funds are designed primarily for the pension trusts of large corporations, with bank policy often limiting investment to a certain percentage of an individual pension trust. Other special commingled funds may consist of fixed-income securities only (sometimes a bank has one fund for short-term securities and another for long-term securities) or of equities only (sometimes including convertible issues as well). Generally, a bank places a limit on the percentage of a commingled fund that can be held by an individual trust (usually 5 or 10 percent).

Since pooling operations reduce costs considerably, many banks charge lower management fees, particularly for smaller accounts, when a customer agrees to have a trust account invested entirely in commingled funds. The earlier-mentioned SEC survey of fifty large banks found, for example, that almost half of the banks reduced the minimum fee charged pension fund accounts by almost 75 percent if all the assets were allowed to be commingled. At the rates that prevailed in 1969, this saved the small business firms that were affected over \$800 a year, on average. Big banks generally prefer to invest in commingled accounts the entire assets of as large a number as possible of their accounts of less than \$1 million. Indeed, the very biggest banks have a guideline of as high as \$11/2 million or even of several million. As a result, it is not uncommon for most of the employee benefit trust accounts at such banks to be wholly or partially invested in commingled funds. In dollar terms this has worked out in the last few years to between 10 and 20 percent of total employee benefit trust fund assets. At the fifty banks surveyed by the SEC, more than half of the total assets of the employee benefit trusts that had less than \$500,000 each was invested in commingled funds in 1969. For the next larger size group (pension funds ranging from \$500,000 to \$1 million), the figure was 31 percent. However, for funds of a size between \$100 million and \$500 million, the proportion dropped to as low as 3 percent.

PERSONAL AGENCY ACCOUNTS. Nearly one fifth of the fiduciary assets in banks at the end of 1970 was for personal agency accounts. The concentration of agency assets was considerably greater (20 percent at just three banks) than that of personal trust assets (see Chart IX). The banks, which rival with investment counselors for agency accounts, have felt increasing pressure from agency customers during the last few years to show improved performance. Previously, most banks had sold personal agency services as they had personal trust services, expounding on their long-term achievements. Since the late 1960's, however, many customers have wanted to see short-term results each year.

There is generally more variability in investment policy among the agency accounts than among the trust accounts



at any one bank. The majority of the agency accounts do not accord the banks sole investment responsibility; consequently, the specific desires and requests of agency principals are unusually important in determining the makeup of the portfolios. Aggregate data show a lower percentage of common stocks in agency accounts than in trust accounts (see Charts XII and III), even though at some of the big banks most agency accounts reportedly are invested more heavily in common stocks than are most trust accounts. A somewhat larger drop was registered between 1968 and 1970 for agency holdings of equities than was the case for trust holdings. Perhaps this reflected the fact that often a larger percentage of the equities investments of agency accounts had been in "growth" stocks, "special situation" stocks, and other securities that underwent particularly sharp price declines during the 1969-70 bear market.

Considerable differences between agency and trust portfolios are apparent also for other components. In 1970, corporate bonds were roughly twice as important in agency portfolios as in trust portfolios, and the agency share rose much more sharply between 1968 and 1970 than did the trust share. The proportion of total agency portfolios in real estate and real estate mortgages, on the other hand, was less than half that shown for trust holdings.

The sizable 1968-70 decline in agency stockholdings was shared in by every size group of bank, and developed

year by year except at banks with fiduciary assets of more than \$1 billion. At the latter, there was a slight increase in 1969, apparently reflecting both an inflow of new agency funds and also net investments despite the widespread decline in stock prices; this was followed, however, by a sizable decrease in 1970. The substantial 1968-70 rise in corporate bond investments was another development common to all size groups of banks. An advance was also recorded at each group of banks in the miscellaneous component, with the largest gains occurring mainly in 1969. The increases presumably reflected primarily a buildup of liquidity in the form of commercial paper and master notes.

Deposits held at own bank for personal agency accounts constituted at most groups of banks a somewhat larger share than did deposits for personal trust accounts (see Chart VI). At the smallest banks, the share was very much higher, slightly above 11 percent compared with 7 percent. At the largest banks, however, the relationship between the shares was reversed. At four groups of banks the personal agency account shares were, like the personal trust account shares, lower than the employee benefit trust deposit shares. The situation at the very large banks was again an exception, but there the ratios for all three categories of accounts were quite low.

[This article will be concluded in a subsequent issue of the Review.]

Subscriptions to the MONTHLY REVIEW are available to the public without charge. Additional copies of recent issues may be obtained from the Public Information Department, Federal Reserve Bank of New York, 33 Liberty Street, New York, N.Y. 10045.

Persons in foreign countries may request that copies of the MONTHLY REVIEW be sent to them by "air mail-other articles". The postage charge amounts to approximately half the price of regular air mail and is payable in advance. Requests for this service and inquiries about rates should be directed to the Public Information Department, Federal Reserve Bank of New York, 33 Liberty Street, New York, N.Y. 10045.

Publications of the Federal Reserve Bank of New York

Distribution and charge policy: The following selected publications are available from the Public Information Department. Except for periodicals, mailing lists are not maintained for these publications.

The first 100 copies of the Bank's general publications and the first copy of its special publications are free on reasonable requests. Additional copies of general and special publications are free on reasonable requests for educational purposes to certain United States and foreign organizations. United States: schools (including their bookstores), commercial banks, public and other nonprofit libraries, news media, and Federal Government departments and agencies; foreign: central government departments and agencies, central banks, and news media. (Such additional free copies will be sent only to school, business, or government addresses.) Other organizations are charged for copies exceeding normal limits on free quantities (prices are listed with the publications).

Remittances must accompany requests if charges apply. Delivery is postpaid and takes two to four weeks. Remittances must be payable on their faces to the Bank in United States dollars collectible at par, that is, without a collection charge.

GENERAL PUBLICATIONS

MONEY: MASTER OR SERVANT? (1971) by Thomas O. Waage. 45 pages. A comprehensive discussion of the roles of money, commercial banks, and the Federal Reserve in our economy. Explains what money is and how it works in a dynamic economy. (15 cents each if charges apply)

SPECIAL PUBLICATIONS

ESSAYS IN DOMESTIC AND INTERNATIONAL FINANCE (1969) 86 pages. A collection of nine articles dealing with a few important past episodes in United States central banking, several facets of the relationship between financial variables and business activity, and various aspects of domestic and international financial markets. (70 cents each if charges apply)

THE VELOCITY OF MONEY (1970, second edition) by George Garvy and Martin R. Blyn. 116 pages. A thorough discussion of the demand for money and the measurement of, influences on, and the implications of changes in the velocity of money. (\$1.50 each if charges apply)

CENTRAL BANK COOPERATION: 1924-31 (1967) by Stephen V. O. Clarke. 234 pages. A documented discussion of the efforts of American, British, French, and German central bankers to reestablish and maintain international financial stability between 1924 and 1931. (\$2.00 each if charges apply)

MONEY, BANKING, AND CREDIT IN EASTERN EUROPE (1966) by George Garvy. 167 pages. A review of the characteristics, operations, and changes in the monetary systems of seven communist countries of Eastern Europe and the steps taken toward greater reliance on financial incentives. (\$1.25 each if charges apply)