

# FEDERAL RESERVE BANK OF NEW YORK



## MONTHLY REVIEW

DECEMBER 1970

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**Volume 52**

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## The Business Situation

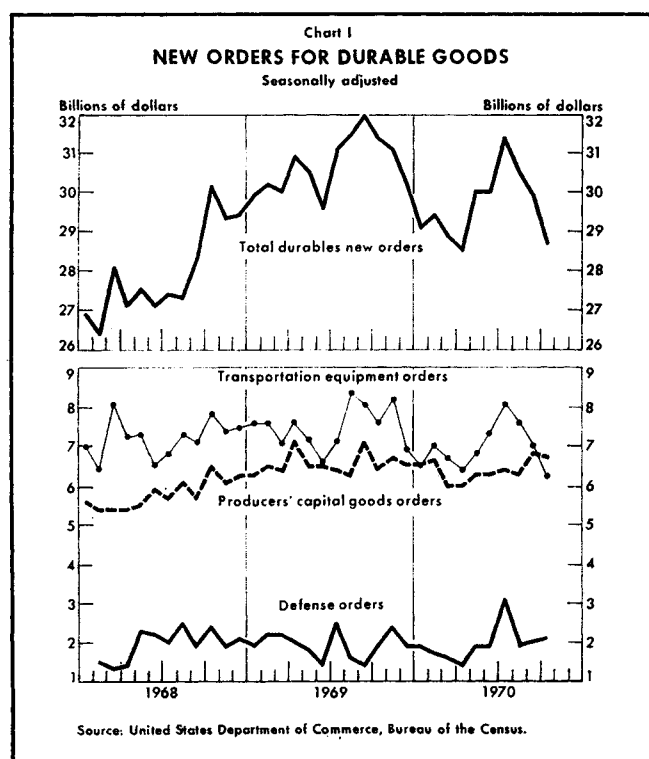
The pace of economic activity slackened noticeably in October and November. Industrial production, payroll employment, and personal income all posted substantial declines, and the unemployment rate edged upward to 5.8 percent. While the strike at the General Motors Corporation was the principal factor behind these developments, the available evidence suggests that the declines in output and employment were also widespread among industries other than those obviously affected by the strike. The latest surveys of plant and equipment spending plans for 1971 confirm the weak outlook that has been portrayed in other recent surveys of business capital spending—especially after allowing for the expected increases in capital goods prices. On a more optimistic note, corporate profits increased somewhat in the third quarter and activity in the residential construction sector has continued to show a strong upward thrust. Also, the settlement of the lengthy General Motors strike in late November should result in a substantial near-term stimulus for the economy, as that corporation strives to make up two months of lost production.

On the price-wage front, the performance of most key indicators remains very disappointing. In October, consumer prices rose at a substantial rate which matched the large September increase. Moreover, while wholesale prices of industrial commodities on a seasonally adjusted basis were unchanged in November, that development came on the heels of an extremely large October advance. Wages continue to rise at extraordinarily rapid rates, and newly negotiated contracts, including the agreement between General Motors and the United Automobile Workers, give little reason for optimism that a significant slowing of wage increases is imminent. Clearly, the realization of a reasonable degree of price stability will prove difficult against a background of wage hikes of the magnitude currently prevailing.

### INDUSTRIAL PRODUCTION, ORDERS, SHIPMENTS, AND INVENTORIES

Partly as a result of the automotive strike, industrial production nose-dived during October, dropping 2.3 percent to 162.3 percent of its 1957-59 average. The Federal Reserve Board's index of industrial output is now 7 percent below the peak attained in July 1969. The October decline in production was centered in motor vehicles and parts, iron and steel, and business equipment. Only about one half of the month's decline in output can be attributed to the direct effects of the strike on automobile output and on the output of firms supplying the automobile industry. Defense-related production continued along its downward trend. Moreover, the index for business equipment dropped a substantial 1.7 percent to 178.0 percent of the 1957-59 average and is now 11.4 percent below the October 1969 level. The continuing decline in the output of business equipment reflects recent cutbacks in real spending for plant and equipment. Output of consumer durables also declined in October. As a result of the automobile strike, new passenger car assemblies plummeted in October by 29.0 percent following the 33.6 percent decline in September. Compared with automobile production in October 1969, output was down 53.0 percent. Output of other consumer durables in October was also off from the September level.

New orders for manufactured durable goods (see Chart I) dropped sharply in October by 3.9 percent to a seasonally adjusted level of \$28.7 billion, marking the third successive monthly decline. In the last two months, however, the movements in this series have been centered in industries affected by the automobile strike, so that new orders for total durables are probably giving an overly bleak picture of the underlying orders situation. In the producers' capital goods sector, new orders slipped



slightly in October by 1.3 percent to a seasonally adjusted \$6.7 billion, but only after posting a large 7.3 percent gain in September. For the third quarter as a whole, orders for capital goods increased 4.9 percent over the second quarter, reversing a downward trend that began in the third quarter of 1969. Sales of all durable goods manufacturers fell 4.8 percent in October to a seasonally adjusted level of \$29.4 billion. Nevertheless, durables sales again exceeded new orders, as has been the case in nine of the first ten months in 1970. Thus, the backlog of unfilled orders for durables declined to a seasonally adjusted \$78.8 billion, the lowest since September 1967.

Inventories of manufacturers swelled by \$0.6 billion in October on a seasonally adjusted basis, well above the \$0.3 billion average increase for earlier months this year. The accumulation of inventories was widespread among durables and nondurables industries. At the same time, there was a sharp decline of \$1.5 billion in sales, of which more than two thirds occurred in the transportation equipment and primary metals industries. Thus, while the inventory-sales ratio for nondurables edged up only slightly, the ratio for the durables sector advanced to the highest level since 1958. However, since much of the decline

in durables sales is strike related, it appears that this ratio somewhat overstates the problem of excess stocks. In September, the latest month for which complete data on trade inventories are available, the inventory accumulation of wholesalers and retailers outpaced sales and the inventory-sales ratio rose moderately.

#### CORPORATE PROFITS AND CASH FLOWS

Corporate profits before taxes, excluding the effects of price changes on the value of corporate inventories, grew by \$1.5 billion to a seasonally adjusted annual rate of \$79.0 billion in the third quarter.\* This rise in profits followed a \$0.8 billion increase in the second quarter. Despite these recent increments, however, pretax profits in the latest quarter were more than \$8 billion below the early 1969 level. Profit margins—as measured by the ratio of after-tax corporate profits to gross product originating in nonfinancial corporations—rose slightly in the third quarter but remained low by historical standards.

To a large extent the modest advance in corporate profits in the third quarter stemmed from factors relating to the business cycle. Real corporate product increased, while employment and hours declined further, yielding a fairly large increase in productivity. Thus, although the pace of compensation per man-hour accelerated somewhat, the rate of advance in unit labor costs was low by recent standards. The growth in corporate profits suggests that price increases were more than large enough to offset the expansion in labor and other costs. As noted, however, in the third quarter, this configuration of events was associated with a sharp gain in productivity which far exceeded the normal long-run growth of real output per man-hour. In coming quarters, further gains in profits may depend on maintaining a better balance between rates of increase in compensation and in productivity. Given recent trends in wages and the possibly cyclical nature of the large productivity gains of the last two quarters, the near-term outlook for profits is by no means clear. The persistent cost pressures and the depressed ratio of profits to gross product suggest that business

\* The Commerce Department has revised its preliminary estimate of third-quarter gross national product (GNP) in current dollars upward by \$0.3 billion to a seasonally adjusted annual rate of \$985.5 billion. Also, the implicit price deflator for GNP was revised slightly upward by 0.07 percentage point. The revision in current-dollar GNP was the net result of a \$1.5 billion addition to nonfarm business inventories and a \$1.2 billion subtraction from "final expenditures", which was distributed fairly evenly among all categories.

may seek to maintain current profit positions by passing on the higher costs in the form of higher prices.

As a result of the depressed levels of corporate profits during the past year, the flow of internally generated corporate funds has fallen relative to the levels in 1969. This flow is the sum of corporate retained earnings, net of price-induced changes in the book-value of inventories, and capital consumption allowances. During the third quarter of 1970, the flow of internally generated funds into non-financial corporations was \$1.4 billion less than the level prevailing in the same quarter of last year, though \$1.1 billion higher than in the second quarter of 1970. As a consequence, funds acquired in the financial markets have become an increasingly important source of financing for plant and equipment spending (see Chart II). Thus, capital spending is likely to continue to be heavily influenced by developments in the money and bond markets which affect the cost and availability of external business financing.

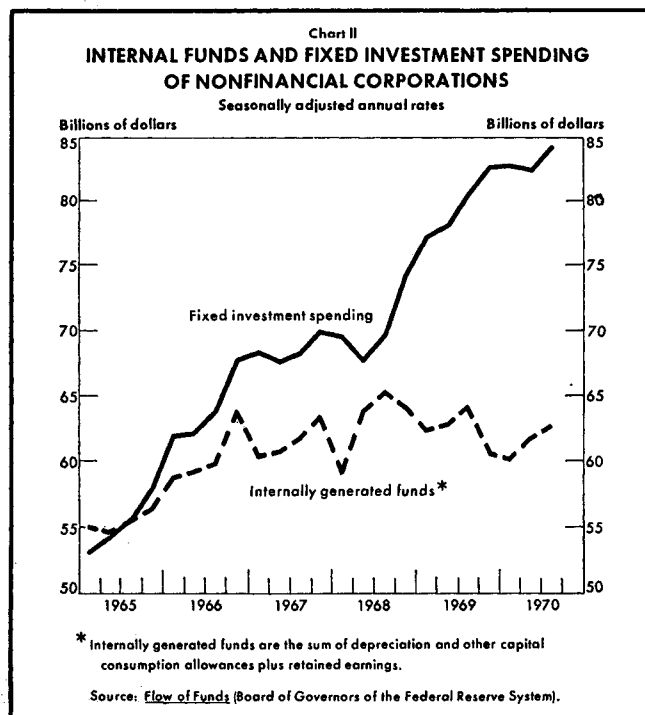
#### CAPITAL SPENDING AND RESIDENTIAL CONSTRUCTION

Business spending plans for new plant and equipment have been scaled down substantially over the course of this year. According to the Commerce Department-

Securities and Exchange Commission survey taken in the first quarter of 1970, businesses planned to step up their capital spending by about 10 percent during 1970. This planned percentage increase for the year was pared down in subsequent surveys, however, and the November survey indicates that plant and equipment spending in 1970 will rise by only 6.6 percent, a finding that confirmed the results of the previous August survey. Looking ahead to 1971, the latest Commerce-SEC survey calls for little change in capital spending during the first half of the year. This is consistent with the fall survey by McGraw-Hill, which indicated that businessmen plan to spend only 2 percent more on new plant and equipment in all of 1971 than in 1970. Since businessmen also reported that they are expecting a 7 percent rise in capital goods prices, present plans call for an outright cutback in physical investment in plant and equipment in 1971 relative to 1970. In the manufacturing sector alone, planned capital spending for the first half of 1971 is actually below current levels even in dollar terms, and this outlook seems to be consistent with the figures on capital appropriations by the nation's 1,000 largest manufacturers. While net new appropriations on a seasonally adjusted basis increased 8.3 percent in the third quarter, they remained 10.3 percent below those in the same quarter of 1969.

While capital spending plans for 1971 are still somewhat indefinite and subject to change, the incentives for capital spending certainly have been weakened by developments in 1970. According to the Federal Reserve Board's index of capacity utilization, manufacturers in the third quarter were operating at 76.2 percent of their estimated capacity, down 1.8 percentage points from the preceding quarter and down 8.0 percentage points from a year earlier. Production must grow at a rate faster than expansion in capacity for the rate of utilization to increase; unless utilization does increase, an important incentive for businesses' expanding their facilities will be lacking.

In contrast to many other areas of the economy, home-building activity continues to gather strength. In October, housing starts increased 3.1 percent over September to a seasonally adjusted annual rate of 1,550,000 units. During the third quarter, new housing units were begun at an annual rate of 1,511,000, which was 21 percent above the average for the first quarter and the highest rate since the second quarter of 1969. October's gain was in multi-family units, with single-family units dipping slightly. Accompanying October's increase in units begun was a hike in residential building permits. After increasing 3.4 percent in September, permits spurted again by 10.4 percent in October to a seasonally adjusted annual rate of 1,514,000 permits. Since permits have been generally pre-





ceded by mortgage commitments, it is only a question of time before these permits translate into actual starts.

#### **EMPLOYMENT, INCOME, AND CONSUMER DEMAND**

The labor market statistics for October and November are very difficult to interpret. On balance, however, these data provide little grounds for optimism. After nosing up slightly by 0.1 percentage point in October, the seasonally adjusted unemployment rate increased again in November by 0.2 percentage point to 5.8 percent. Since the household labor survey considers striking workers as employed, the unemployment rate in October and November was affected by the automotive strike only insofar as workers laid off by GM and related industries contributed to the rise in joblessness. The October-November rise in the unemployment rate centered in the adult women and teen-agers categories.

Payroll employment in October dropped by 315,000 to a seasonally adjusted 70,216,000, the lowest level since May 1969. Since striking workers are not receiving paychecks, these persons are not considered employed in the payroll survey. To some extent, the decline in payroll employment in October was the result of the automobile strike. Decreases in manufacturing jobs alone amounted to around 560,000 workers, of whom about 325,000 were striking auto workers. An undetermined, but probably quite substantial, proportion of the remaining 235,000 were workers laid off as a result of the strike. In November, payroll employment declined again. Since the automotive strike had not ended when the November survey was taken, the results for this month were also affected by the strike. Almost all the November decline in payroll employment centered in the manufacturing sector, presumably in part reflecting secondary strike-related layoffs. During October and November, average hours worked were essentially unchanged from their low September levels.

In October, personal income declined by \$2.4 billion to a seasonally adjusted annual rate of \$809.5 billion. Wage and salary disbursements were down fully \$5.3 billion, largely reflecting the decrease in payroll employment. However, about \$2 billion of this decline in wage and salary income was also due to the temporary boost given the September total by the nonrecurring payment to postal workers of the retroactive portion of their pay raise. In the private sector, the largest declines were in the transportation equipment and primary metals industries where the GM strike had its largest direct and indirect effects. The drop in total personal income was held to only about half of the fall in wage and salary income largely because of

a gain of nearly \$2 billion in transfer payments. The major factor in the latter increase was, however, a nonrecurring payment of retroactive benefits to retired railroad workers.

The automotive strike, which began in mid-September, had widespread effects on the economic aggregates for October. With respect to retail sales, the strike had a double-edged effect. Many potential buyers refrained from making any new car purchase, with the result that sales of domestically produced automobiles declined 13.3 percent in October. Consequently, the fall in durables retail sales swamped a modest 1.0 percent increase in non-durables retail sales. Moreover, the strike imposed a drastic loss of income on many workers, forcing them to tighten their belts. Now that a settlement has been negotiated, both these effects should unwind themselves with a resultant stimulus to retail sales. Overall, retail sales have been quite sluggish; during the first nine months of this year, they rose only 3.9 percent over the level of the corresponding period in 1969. This dollar gain fell short of the increase in prices over the same period, so that in terms of physical volume real retail sales actually fell.

Additional evidence of consumers' hesitancy is seen in the substantially reduced rates of increase in consumer credit outstanding. For the first ten months of 1970, the seasonally adjusted net increase in instalment credit,—that component of consumer credit most closely related to the purchases of goods—was down more than 50 percent from the similar period last year. The net change in instalment credit is the difference between new extensions and repayments on outstanding obligations, and all the decline resulted from a marked slowing in the rate of new extensions.

#### **PRICE DEVELOPMENTS**

The consumer price index rose at a seasonally adjusted annual rate of 6.4 percent in October, well above the average monthly increase of 5.4 percent for the first nine months of 1970 and even above the average monthly increase of 6.1 percent in 1969. Since food prices increased very slightly in October, the overall rise was attributable primarily to advances in prices of nonfood commodities and services. Nonfood commodities prices, adjusted for seasonal variation, rose at a rapid annual rate of 6.8 percent, primarily as a result of advances in new automobile and apparel prices. Prices of services rose at an annual rate of 6.1 percent in October, down considerably from the average monthly increase of 8.5 percent for the first nine months of 1970.

After increasing slightly in October, seasonally adjusted wholesale prices in November dipped back to the Septem-

ber level. However, this relative stability masks fairly substantial movements in the components of the total index. Wholesale agricultural prices plunged in October at an annual rate of 16.2 percent and, according to the preliminary estimate, declined an additional 5.1 percent in November. On the other hand, industrial commodities prices increased sharply in October at an annual rate of

7.5 percent, with extremely large gains being recorded for prices of fuels and transportation equipment. However, the preliminary November estimate indicates that wholesale prices of industrial commodities were unchanged. For the year ended November 1970, wholesale industrial prices have advanced 3.6 percent, compared with the 4.0 percent increase over the preceding twelve-month interval.

### **The Money and Bond Markets in November**

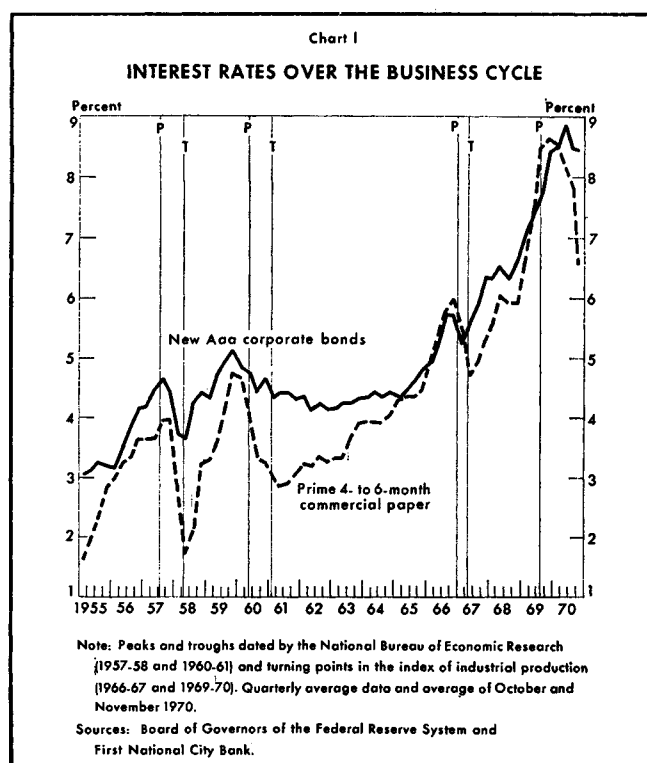
Almost all interest rates fell steeply in November. Long-term rates moved lower after having been relatively flat during the preceding three months, while the downward trend in short-term rates gained considerable momentum. The broad-based decline in money market interest rates was fostered by slack demand for bank loans and short-term funds and the continuation of a moderately expansive monetary policy. Long-term rates fell as investors, convinced that interest rates were headed lower, bought fixed-income securities aggressively. As market rates plummeted, both the Federal Reserve discount rate and the commercial bank prime lending rate were reduced twice.

This pronounced decline in market interest rates, following their sharp rise in 1969 and early 1970, is to a large extent typical of the behavior of interest rates over the business cycle. Historically, interest rates have conformed positively to the business cycle—rising with expansions in business activity and falling with business contractions (see Chart I). In the postwar period, interest rates have tended to peak slightly before the peak in business activity, and both long- and short-term rates have usually reached their turning points at about the same time. The generally coincident movement in interest rates and the level of business activity reflects cyclical shifts in the demand and supply of loanable funds. In expansions, strong business demand for funds, prompted by the prospect of favorably high rates of return on physical investment, bids up interest rates. As the expansion progresses and a more restrictive monetary policy comes into play, the supply of loanable funds is constrained relative to continuing strong demand, and this contributes to the

upswing in rates. On the other hand, in a period of economic sluggishness, the demand for funds weakens as investors become less willing to undertake capital expenditures in view of the uncertain outlook. The weaker demand, combined with an augmented supply of loanable funds resulting from a more expansive monetary policy, acts to bring rates down.

The behavior of interest rates in 1969-70 was somewhat different from the typical pattern in that rates peaked quite late in the cycle, and that the turning point in long-term rates occurred considerably after short-term rates had started to decline. A factor contributing to this behavior was the persistence of inflationary expectations. When investors anticipate that prices will rise, they demand a higher nominal rate of return to safeguard the purchasing power of their future stream of income. Since price increases in recent years had been sharp, expectations of continued strong inflation persisted, thus keeping nominal interest rates rising even after the downturn in business activity. An experience similar to this had occurred in 1957-58, the previous cycle in which the rate of inflation was relatively rapid.

In 1970 the rise in long-term rates continued even after short-term rates had begun trending downward. Since long-term rates are heavily influenced by expectations of rates in the future, this behavior may have been indicative of continued expectations of strong increases in prices and interest rates. Moreover, massive demands for funds in the capital market contributed to upward pressure on long-term rates. After peaking at midyear, long-term interest rates declined only moderately as an



extraordinarily large volume of financing was carried out in this sector. In November, however, the conviction that interest rates were headed lower combined with a moderately expansive monetary policy to bring most long-term rates down (see Chart II) despite heavy demands on the capital market.

#### THE MONEY MARKET

Money market conditions were quite comfortable during November. Member bank borrowings from the Federal Reserve Banks declined to \$409 million on average during the four weeks ended November 25 (see table), about \$60 million below the October average and the lowest for any month since February 1968 when such borrowings started trending sharply upward. The reduced level of borrowing from the Federal Reserve reflected the ample provision of reserves by the System through open market operations. Moreover, sharply lower market rates of interest made borrowing at the discount window less attractive than earlier in the year, when market rates substantially exceeded the discount rate. To bring it into better alignment with the lower range of other short-term interest rates, the twelve Federal Reserve Banks

reduced the discount rate from 6 percent to  $5\frac{3}{4}$  percent during the week of November 9. As market interest rates continued to post steep declines, the discount rate was further reduced to  $5\frac{1}{2}$  percent in early December.

A contraseasonal sluggishness in bank loans, which had been evident from mid-September, persisted through November. Corporate borrowers bypassed banks as they continued to rely heavily on long-term funds. Some borrowers may also have been attracted by the lower range of rates prevailing in the commercial paper market, but in general the emphasis on repaying short-term liabilities with the proceeds of long-term debt remained a dominant factor contributing to weak loan demand. Over the four weeks ended November 25, the volume of commercial and industrial loans outstanding at all weekly reporting banks fell by \$648 million,<sup>1</sup> compared with increases of \$371 million and \$1.5 billion during the comparable periods of 1969 and 1968, respectively. To stimulate loan demand, commercial banks lowered their prime lending rate in two  $\frac{1}{4}$  percentage point reductions to 7 percent during the month.

As a result of the slack demand for short-term credit and a moderately expansive monetary policy, interest rates on all money market instruments declined substantially over the month. Short-term rates are now far below their early 1970 peaks. The interest rate on dealer-placed prime four- to six-month commercial paper, which stood at  $9\frac{1}{8}$  percent in early January, fell from  $6\frac{5}{8}$  percent at the end of October to  $5\frac{3}{4}$  percent at the end of November. Rates on all maturities of directly placed commercial paper and bankers' acceptances also declined steadily during November, and were 1 percentage point or more below their end-of-October levels and about 3 percentage points below their January peaks by the month end. Most short-term rates are now at their lowest levels since early 1968.

Offering rates on large certificates of deposit (CD's) were similarly reduced during November, but the volume of these obligations outstanding once again showed a strong gain, increasing by \$1.7 billion in the four weeks ended November 25. Since the partial suspension of Regulation Q in late June, the volume of large CD's outstanding at all weekly reporting banks has increased by over \$12 billion, bringing the outstanding total at the end of November to a record high of \$25.2 billion.

The narrowly defined money supply—currency and demand deposits held by the public—grew at a 2.7 per-

<sup>1</sup> Not including those loans repurchased from affiliates in connection with the redemption of commercial paper obligations.

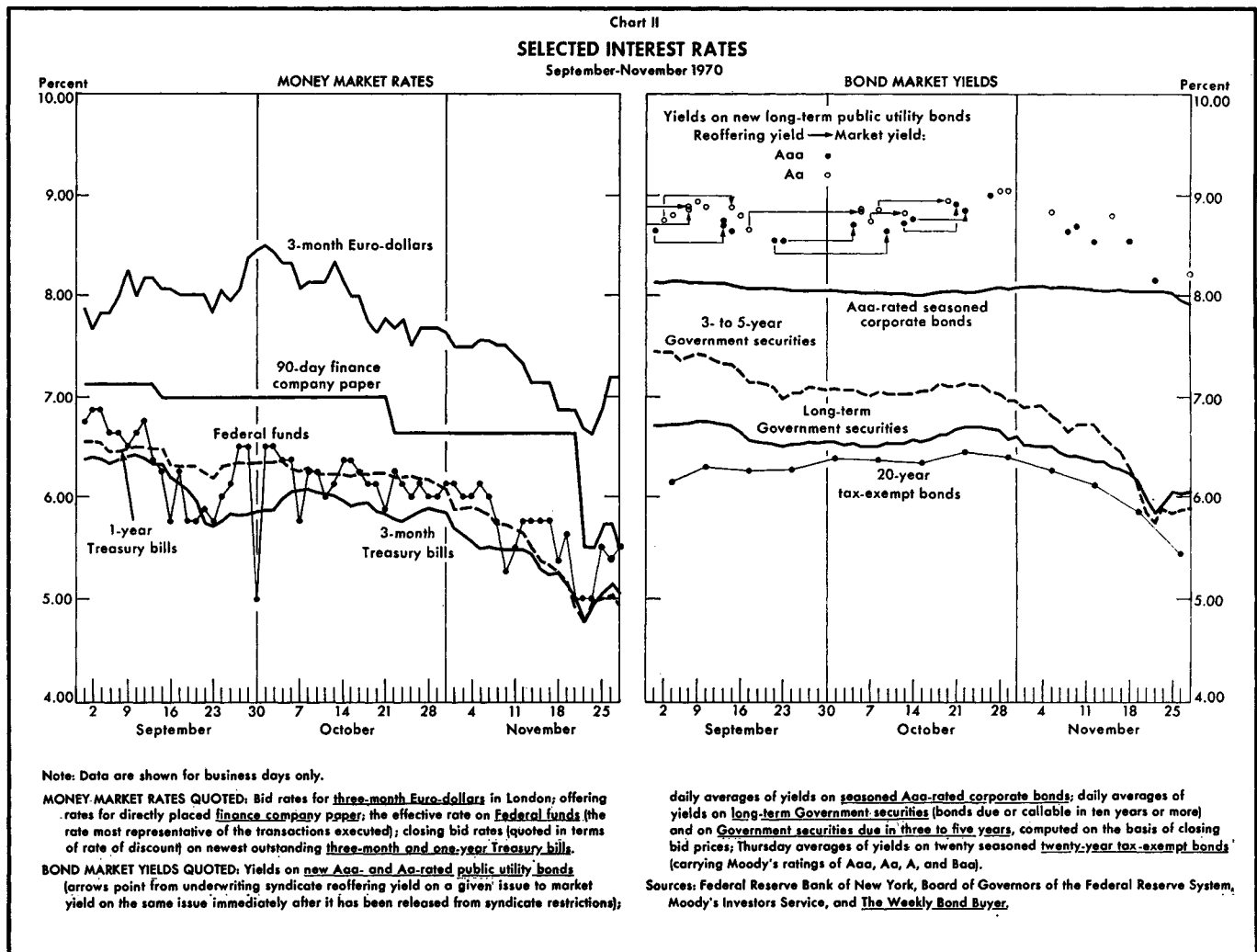
cent annual rate<sup>2</sup> during November. This figure is based on a revision of the money supply series that was announced by the Board of Governors of the Federal Reserve System on November 27. A minor part of the revision stems from the annual review of seasonal factors and the correction of nonmember bank deposit data based on the latest "call report" information. The major portion arises from the elimination of a downward bias in the measured money supply, which had resulted from the deduction of "cash items in the process of collection" that

arise in the clearance of payments by the large money market banks for certain specialized international banking institutions.<sup>3</sup>

These institutions have been handling an increasingly large volume of payments—representing mainly transfers of Euro-dollars and foreign exchange—for their parent firms as well as other customers. Typically, they have no direct way to clear checks and thus redeposit immediately with the large money market banks the funds they receive each day from their depositors. On the New York banks'

<sup>2</sup> Because final November data are not yet available, growth rates of the money supply and adjusted bank credit proxy are based on an average of the four weeks ended November 25.

<sup>3</sup> These institutions are agencies and branches of foreign banks and subsidiaries of United States banks organized under the Edge Act to engage in international banking.





**FACTORS TENDING TO INCREASE OR DECREASE  
MEMBER BANK RESERVES, NOVEMBER 1970**

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

Factors	Changes in daily averages— week ended on				Net changes
	Nov. 4	Nov. 11	Nov. 18	Nov. 25	
“Market” factors					
Member bank required reserves .....	— 78	— 109	+ 164	+ 312	+ 289
Operating transactions (subtotal) .....	— 342	+ 113	— 836	+ 104	— 452
Federal Reserve float .....	— 324	+ 422	— 178	+ 261	+ 186
Treasury operations* .....	+ 146	+ 81	+ 88	+ 153	+ 468
Gold and foreign account .....	— 24	— 1	+ 17	+ 18	+ 10
Currency outside banks .....	— 18	— 294	— 533	— 308	— 1,143
Other Federal Reserve liabilities and capital .....	— 126	— 95	+ 276	— 26	+ 29
Total “market” factors .....	— 420	+ 8	— 163	+ 416	— 163
Direct Federal Reserve credit transactions					
Open market operations (subtotal)	+ 702	— 70	+ 786	— 247	+ 1,171
Outright holdings:					
Government securities .....	+ 241	— 94	+ 509	+ 407	+ 1,063
Bankers’ acceptances .....	+ 1	—	—	+ 1	+ 2
Repurchase agreements:					
Government securities .....	+ 369	+ 19	+ 302	— 500	+ 90
Bankers’ acceptances .....	+ 28	+ 11	+ 13	— 48	+ 4
Federal agency obligations .....	+ 63	— 6	+ 62	— 107	+ 12
Member bank borrowings .....	— 12	+ 23	— 118	+ 103	—
Other Federal Reserve assets† .....	— 145	+ 9	— 280	— 869	— 765
Total .....	+ 547	— 39	+ 413	— 513	+ 408
Excess reserves .....	+ 127	— 36	— 77	— 97	— 83

	Daily average levels				Monthly averages
Member bank:					
Total reserves, including vault cash .....	28,652	28,725	28,813	28,403	28,648‡
Required reserves .....	28,354	28,443	28,607	28,295	28,420‡
Excess reserves .....	318	282	206	108	228‡
Borrowings .....	423	445	382	435	409‡
Free, or net borrowed (—), reserves.....	— 105	— 163	— 127	— 327	— 181‡
Nonborrowed reserves .....	28,229	28,280	28,480	27,968	28,239‡
Net carry-over, excess or deficit (—)§.....	134	189	160	132	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 on November 25.

§ Not reflected in data above.

books, these deposits are reflected in large increases in cash items and in large credit entries to the deposit accounts due to the international banking institutions. These deposit accounts are classified by the city banks as "due to domestic commercial banks". In calculating the money supply, cash items in the process of collection are subtracted from

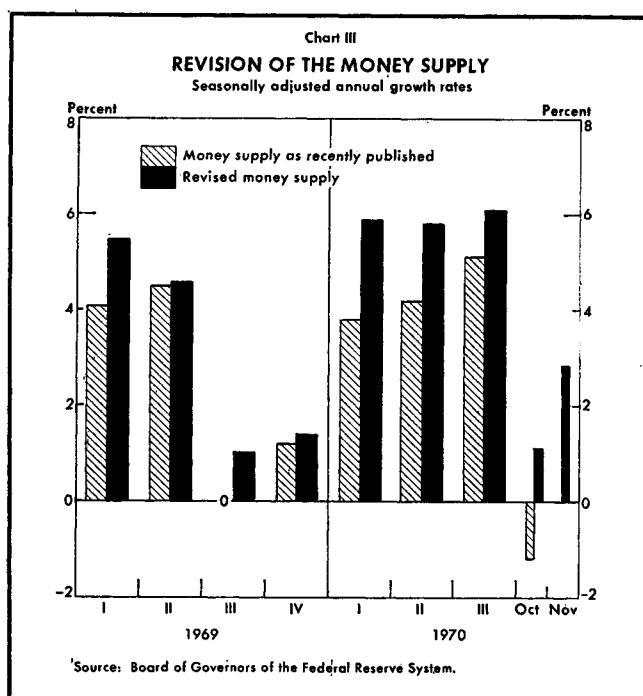
gross demand deposits to avoid double counting the funds that are in the process of being transferred from one bank to the next. In addition, deposits due to domestic commercial banks are excluded because such balances presumably represent offsetting assets and liabilities for the banking system as a whole. Now, since the cash-items deduction in calculating the money supply includes the checks presented for collection by the specialized international institutions but their deposits with commercial banks are not included in the totals covered by the money supply, there is an understatement of the money supply—that is, the money supply is understated by the amount of cash items outstanding each day that are associated with credits to the deposit accounts due to the specialized institutions. Since funds had been transferred through these institutions continuously, and on a growing scale, the cash-items bias had been increasing.

The correction of the money supply data for the cash-items bias has been accomplished by adding to deposits essentially the volume of checks presented each day to commercial banks for collection by the specialized international institutions. However, as part of this revision, it was found desirable to include also those deposit liabilities of the institutions that remain relatively stable from day to day. Unlike the funds that flow in and out on the same day, these balances are relatively small. Thus, the net addition to the money supply (excluding the correction for the cash-items bias) is virtually negligible.

As a result of the corrections and adjustments, the money supply is now measured as having grown considerably faster in recent months than indicated by the previously published series. Over the first ten months of 1970, the revised money supply grew at a 5.5 percent annual rate, compared with a previously published rate of 3.8 percent. However, the basic pattern of very slow growth of the money supply in the second half of 1969 and more rapid expansion in 1970 is not changed by the revisions (see Chart III).

The adjusted bank credit proxy, a measure of bank liabilities which includes deposits subject to reserve requirements and Euro-dollar and commercial paper liabilities, increased at an 8.1 percent annual rate in November, or at a 7.6 percent annual rate since the beginning of the year. Strong time deposit growth continued to furnish most of the proxy's strength.

The level of bank-related commercial paper declined in November, as it has in each month since the announcement in late August of the imposition of a 5 percent reserve requirement on funds raised by banks through the sale by their affiliates of commercial paper maturing in thirty days or more and the simultaneous reduction to 5 percent in



reserves required against time deposits in excess of \$5 million. The reduction in the level of bank-related commercial paper outstanding during the four weeks ended November 25 amounted to \$544 million, bringing the outstanding total to \$3.1 billion—less than half the level outstanding at the end of August.

Bank Euro-dollar liabilities also declined, falling by \$861 million to an \$8.76 billion level in the four weeks ended November 25. Banks have made substantial repayments of Euro-dollar liabilities since late June because of their ability to attract large CD's and the relatively high cost of Euro-dollars. Some banks have reduced their level of Euro-dollar liabilities below their May 1969 reserve-free bases, which were established last year when reserve requirements were imposed on such liabilities. To encourage banks to preserve their reserve-free bases against future need, rather than allowing their bases to be permanently lowered as occurs when their borrowings fall below the base, the Board raised from 10 percent to 20 percent the reserves required to be held against Euro-dollar borrowings that exceed the reserve-free base. The measure becomes effective in the four-week reserve computation period ending December 23. Partly so as not to penalize those banks that currently have Euro-dollar liabilities in excess of their bases, the Board also amended its regulations regarding the computation of the reserve-free base.

Banks will now have a reserve-free base equal to the average level of their Euro-dollar borrowings outstanding in the four weeks ended November 25, 1970. These new reserve-free bases will be permanently reduced to the lowest average level of Euro-dollar liabilities held during any subsequent four-week computation period whenever the average of such borrowings falls below the new base average. Alternatively, a bank may use as its reserve-free base an amount that is equal to 3 percent of its deposits subject to reserve requirements during the current computation period. A bank in this group that has had foreign branches in operation for more than ninety days will, however, also have its reserve-free base permanently reduced to the lowest average total of its Euro-dollar liabilities in any computation period beginning after December 24, 1970, whenever that amount is less than 3 percent of its total deposits subject to reserve requirements during the current computation period. These changes become effective January 7, 1971.

#### THE GOVERNMENT SECURITIES MARKET

Yields on all maturities of Government securities plummeted in November, as market participants' growing conviction that interest rates were headed downward bolstered demand for both bills and coupon issues. The ebullience of the market reflected the expectations that sluggish bank loan demand would lead to a decline in the prime lending rate of banks and that banks would become active investors in fixed-income securities. In addition, new appraisals of the economic outlook suggested to many that a more expansive monetary policy was likely over the months ahead. Sizable bank buying of intermediate issues during November reinforced the bullish outlook in the market.

Demand for Treasury issues was good at the beginning of November and became even stronger as the month progressed. Widespread expectations of an imminent reduction in the prime rate and discount rate sparked considerable buying early in the month. The success of the Treasury's financing operations also added to the good investor outlook at this time. The refunding of the \$6.0 billion of publicly held Treasury notes maturing in November resulted in a relatively small attrition of 10.8 percent.

To cover the attrition and raise new cash, the Treasury auctioned \$2 billion in new 6¾ percent eighteen-month notes on November 5. This was the first time in thirty-five years that the Treasury had sold notes at auction. Under the more typical procedure, the Treasury sets both the amount and price of the new issue in advance. In the note auction, the Treasury determined in advance the amount to be issued but stipulated only a minimum acceptable

price of 99.76. As it turned out, bidding was very aggressive, and all bids accepted were for prices which not only exceeded the minimum, but were well above par. The average return to investors on the new issue was 6.21 percent. Thus, the auction technique allowed the Treasury to take advantage of the substantial improvement in market conditions that had occurred between the announcement of the terms of the issue and the sale of the debt. Subsequent to this operation, the Treasury announced that it would raise \$2.2 billion more in new cash before the end of the year by auctioning an additional \$100 million in bills at the November 23 auction and by a \$2.1 billion "strip" offering on November 25. The latter consisted of a \$300 million addition to each weekly series of bills maturing between January 7 and February 18, 1971.

Although investors continued to be confident that substantial interest rate declines lay ahead, some market participants were briefly disappointed when the discount rate was reduced by only  $\frac{1}{4}$  of a percentage point in early November. However, demand for Treasury issues continued to grow, and even the settlement of the automobile strike on November 12, with its inflationary implications, did not dampen investor enthusiasm for fixed-income securities. Strong buying continued through the remainder of November, and price increases were rapid and large. Expectations of even further reductions in the discount and prime rates were widespread and added to the buoyant market tone. Over the month, yields on intermediate-term Treasury issues fell by approximately 106 to 145 basis points and yields on long-term bonds fell by about 34 to 102 basis points. This brought yields on most coupon issues to their lowest levels since early 1969. Yields on Treasury bills of all maturities also tumbled. The yield on three-month bills fell from 6.01 at the end of October to 5.17 at the end of November, the sharpest monthly decline thus far this year. By the close of the month, bill rates were at their lowest levels in about  $2\frac{1}{2}$  years.

#### OTHER SECURITIES MARKETS

The market for corporate securities turned in a very strong performance in November, with a record heavy volume of debt marketed at declining yields. Signs of slack in the economy, expectations of a continued moderately expansive monetary policy, and the downward spiral in money market rates prompted strong investor demand.

Within the corporate sector, the month's new issue volume set a record at \$3.4 billion. The concern of industrial borrowers with repayment of short-term debt and bank loans again played a major role in prompting heavy long-

term corporate borrowing. Most of the new corporate bond issues introduced to the market during November met very good receptions. A majority of the month's offerings were quickly subscribed to, and many rose to substantial premiums in subsequent trading. The recent improvement in market conditions was evident in the terms of a major Bell Telephone System offering. On November 10, American Telephone & Telegraph Company floated \$350 million of 32-year debentures yielding 8.70 percent and \$150 million of seven-year notes priced to yield 7.68 percent. The 8.70 percent yield on the longer issue was 30 basis points lower than the yield on a similar issue of an AT&T subsidiary marketed in late October. As prices rose at a very rapid pace, another long-term offering by a Bell System affiliate was marketed on November 24 at a price that yielded investors a return of 8.16 percent. This was the lowest reoffering yield on an issue of an AT&T unit since July 1969. By the close of the month, even those corporate issues that initially had met a somewhat cooler reception because of their more aggressive pricing were in demand, and unsold balances in dealers' inventories were substantially reduced.

Although new issue yields posted steep declines, yields on outstanding corporate securities, as measured by Moody's seasoned Aaa-rated corporate bond index, were almost unchanged until quite late in November (see Chart II). However, this index is not highly sensitive to current interest rate changes since the issues in the index are highly rated industrial bonds which are in thin supply and are sometimes traded infrequently.

Prices of outstanding municipal securities showed dramatic increases in November. Over the month, *The Weekly Bond Buyer's* index of yields on twenty municipal securities dropped by 96 basis points to 5.44 percent. About \$1.7 billion in new tax-exempt bonds was introduced in the sector, and despite rising prices almost all offerings were well received. While professional buying was strong early in the month when dealers were anticipating a cut in key lending rates, retail demand increased as the period progressed. In the face of slack loan demand, commercial banks again made sizable purchases of municipal securities. The marked improvement in prices of tax-exempt issues was underscored on November 18 when \$98.8 million in issues offered by the Department of Housing and Urban Development, which had failed to receive any bids on October 28 because of their 6 percent interest ceiling, was successfully marketed at rates below the ceiling. Through the remainder of the month, yields continued to drop sharply, and as November drew to a close the return to investors on a highly rated tax-exempt bond was at its lowest level in over a year and a half.

## Recent Developments in the Commercial Paper Market

By FREDERICK C. SCHADRACK and FREDERICK S. BREIMYER\*

The commercial paper market has undergone a series of major changes in the past five years. The pronounced shift away from such paper by investors, following the default of the Penn Central Transportation Company on its outstanding paper, was the most dramatic of these changes. But this development itself reflects the extremely rapid expansion of the commercial paper market in the latter part of the sixties and in early 1970. In this period, commercial paper was increasingly seen by borrowers as a supplement to sometimes scarce and often costly bank credit. Unfortunately this growth was accompanied by some deterioration in the quality of paper issued, a condition which largely went unnoticed in the inflationary environment of the late sixties but which became apparent in mid-1970. The growth of the commercial paper market was also stimulated by the entry of affiliates of commercial banks into the market on a large scale in 1969, as the banks sought out sources of lendable funds under the pressure of increasing monetary restraint. However, the growth of bank-related paper was halted in mid-1970, when the Board of Governors of the Federal Reserve System suspended Regulation Q interest rate ceilings on short-maturity large negotiable certificates of deposit (CD's) and then placed reserve requirements on bank funds derived from commercial paper. The amount of bank-related paper outstanding has subsequently declined sharply.

The recent retreat of the commercial banks from the

commercial paper market, along with the renewed investor demand for paper of unquestioned quality, has undoubtedly marked a new stage in the evolution of this market. Moreover, the suspension of Regulation Q interest rate ceilings on short-maturity large CD's has provided commercial paper with a significant competitor for investor funds. The total amount of commercial paper outstanding may decline somewhat further as these developments work themselves out. However, most of the paper currently outstanding has been issued by the largest and strongest financial and nonfinancial corporations in the country. Since such paper provides unique advantages to both issuers and investors, renewed growth in the market seems likely after the current adjustment has been completed. But this growth will probably be both less hectic and more sustainable than that of the latter half of the sixties.

The balance of this article is divided into five sections. The first outlines, in general terms, the nature and structure of the commercial paper market. The second deals with the extremely rapid growth of nonbank commercial paper—and of dealer-placed paper, in particular—from mid-1966 to mid-1970. The third discusses the entry of large commercial banks into the market in 1969 as issuers of paper through affiliates and subsidiaries, and the rapid growth of such paper through mid-1970. The fourth section reviews the impact on the market of the Penn Central failure and new regulations limiting commercial bank access to the market. The final section discusses the outlook for the commercial paper market.

### THE COMMERCIAL PAPER MARKET

Commercial paper consists of unsecured short-term promissory notes issued by sales and personal finance companies, by manufacturing, transportation, trade, and

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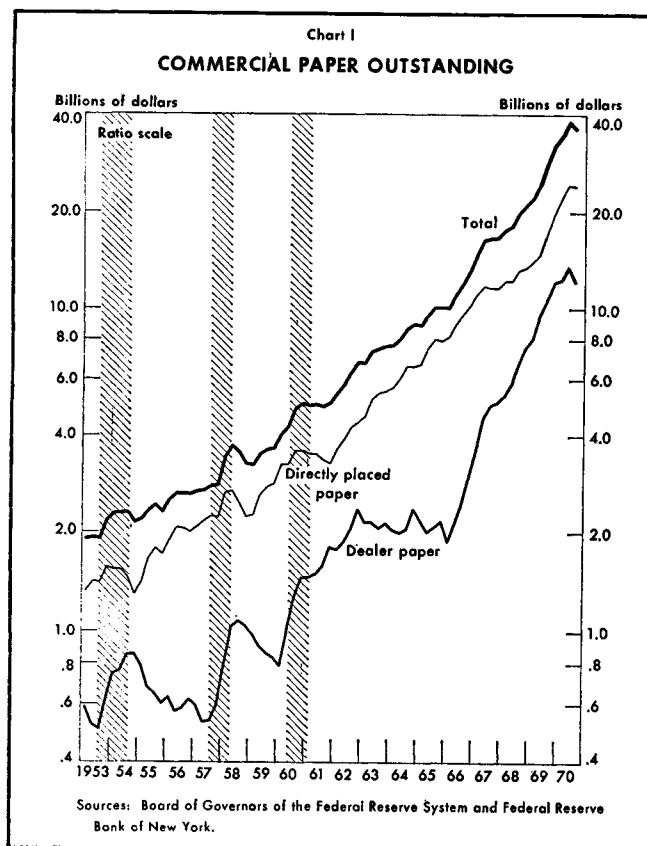
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utility companies, and by the affiliates and subsidiaries of commercial banks. Because the notes are unsecured, the issuers have generally consisted of large, well-known companies whose financial position has been assumed to be above question. Moreover, most commercial paper issuers are expected to maintain back-up bank credit lines equal to the amount of their commercial paper outstanding. Commercial paper may be placed directly with the investor by the issuer (direct paper) or indirectly through a commercial paper dealer (dealer paper). At the peak in May 1970, direct paper outstanding totaled \$25.7 billion and dealer paper totaled \$14.0 billion (see Chart I).

Commercial paper is usually sold on a discount basis, with the face amount of the notes ranging from about \$5,000 to \$1 million or more. However, notes of less than \$50,000 are not common. Maturities range from three days to nine months, but most paper carries an original maturity of less than ninety days. The nine-month maximum maturity reflects the fact that commercial paper is exempt from registration with the Securities and Exchange

Commission provided that the original maturity does not exceed this limit. The exemption also requires that the proceeds of these notes be used for "current transactions". Most settlements in the commercial paper market are in Federal funds, with banks in New York and Chicago often acting as the issuer's agent in collections and payments on its notes. While the purchaser of commercial paper is expected to hold it to maturity, direct placers will repurchase paper before maturity from good customers in an emergency, and dealers will generally attempt to resell paper on a "best efforts" basis or make other arrangements in the same situation to lend such paper some degree of liquidity.

The markets for directly placed paper and for paper placed through dealers differ in terms of both their supply and demand characteristics.<sup>1</sup> Virtually all directly placed paper is issued by large finance companies and by the affiliates and subsidiaries of commercial banks. As shown in Table I, about 75 percent of the direct paper outstanding in the first half of 1970 had been issued by finance companies and the balance was largely accounted for by the affiliates of banks.<sup>2</sup> The finance companies are continuously in the market for large amounts of funds. They tailor maturities to specific investor needs and are willing to place paper for periods as short as three days. Finance companies play an important role in the dealer market as well (accounting for something over one quarter of total dealer paper outstanding in the first half of 1970), but the finance companies in this market are generally smaller and less well-known than those placing paper directly. Although bank-related commercial paper is also placed through dealers, most dealer paper—about 60 percent in recent years—has been issued by nonfinancial corporations. In the past, many of these corporations were in the market only periodically to cover well-defined seasonal needs for funds. Today, however, a number of nonfinancial corporations are constantly in the market through the dealer mechanism. While dealer paper maturities have often been tailored to the issuer's needs, there is considerable give and take in the market today, with lender



<sup>1</sup> See Frederick C. Schadrack, "Demand and Supply in the Commercial Paper Market", *The Journal of Finance* (September 1970), pages 837-52, for a statistical analysis of the relationships between the direct and dealer paper markets.

In this article the demand for commercial paper refers to the quantity demanded by investors (lenders), while supply refers to the quantity of paper offered by issuers (borrowers).

<sup>2</sup> There was at least one nonfinancial corporation issuing paper directly in 1970.

Table I  
DISTRIBUTION OF COMMERCIAL PAPER BY ISSUER  
Percent; end of period

Type of issuer	1960	1965	1966	1967	1968	1969	1970-I	1970-II	1970-III
Total commercial paper .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Finance companies .....	82.2	91.2	88.0	81.8	78.0	65.2	59.6	57.8	60.2
Nonfinancial corporations .....	17.8	8.8	12.0	18.2	22.0	21.5	22.9	22.3	26.3
Bank affiliates .....	—	—	—	—	—	13.3	17.5	19.9	13.5
Directly placed paper .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Finance companies .....	100.0	100.0	100.0	100.0	100.0	84.8	77.4	73.7	80.8
Nonfinancial corporations .....	—	—	—	—	—	—	—	—	—
Bank affiliates .....	—	—	—	—	—	15.2	22.6	26.3	19.2
Dealer-placed paper .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Finance companies .....	42.9	57.9	48.4	38.8	37.5	32.2	28.7	27.7	24.8
Nonfinancial corporations .....	57.1	42.1	51.6	61.2	62.5	57.6	62.5	64.6	71.2
Bank affiliates .....	—	—	—	—	—	10.2	8.8	7.7	4.0

Source: Board of Governors of the Federal Reserve System.

needs frequently influencing the maturities offered.

With respect to demand, nonfinancial corporations apparently dominate the direct paper market (see Table II). However, the statistics on commercial paper holdings are at best very rough estimates, with the holdings shown in the table of nonfinancial corporations and others (such as pension and trust funds, colleges and universities, foreign institutions, etc.) derived as a residual. Nevertheless, it seems likely that nonfinancial corporations still account for the bulk of the paper held in this residual category, even though the nonfinancial corporate share probably declined somewhat in the late sixties as these corporations became increasingly pressed for capital investment funds. In any event, nonfinancial corporations and others held almost 90 percent of the directly placed paper outstanding in the first half of 1970. Large corporations find the flexible maturities and large blocks of funds available from the direct issuers well suited to their short-term investment needs. Nonfinancial corporations and others have also assumed a major role in the dealer paper market in recent years, supplanting commercial banks as the principal purchaser of dealer paper. This development, in part, reflects the larger blocks of funds now available to investing corporations in the dealer market and the greater flexibility of maturities in this market as well. Commercial banks—especially smaller banks—have typically relied on dealer paper to make up for deficiencies in loan demand while diversifying their portfolios among industries.

#### MID-1966 TO MID-1970: THE BOOM IN NONBANK COMMERCIAL PAPER

While the commercial paper market has generally grown rapidly since World War II,<sup>3</sup> the expansion of the market in the late 1960's and early 1970 was unprecedented. For example, during the ten years ended in May 1966, total nonbank commercial paper outstanding increased \$8.8 billion or by a respectable 16 percent compound annual rate of growth. In the next four years, however, the growth rate jumped to 29 percent annually, and the amount of paper outstanding increased \$20.7 billion to \$32.1 billion.<sup>4</sup> At the same time, the number of nonbank companies issuing commercial paper increased sharply, rising from about 335 in 1965 to about 575 in April 1970.

Dealer paper was the most dynamic sector of the commercial paper market in the 1966-70 period, with dealer paper outstanding rising \$10.7 billion or 57 percent an-

<sup>3</sup> The growth of the commercial paper market up to the early 1960's is reviewed in Richard T. Selden, "Trends and Cycles in the Commercial Paper Market", *Occasional Paper 85* (New York: National Bureau of Economic Research, 1963).

<sup>4</sup> All figures in this section exclude commercial paper issued by commercial bank affiliates and subsidiaries, which became significant only in 1969. The next section of this paper deals specifically with bank-related commercial paper.



nually as compared with a 15 percent annual growth rate over the preceding ten years. Furthermore, almost all the new issuers of commercial paper in the 1966-70 period entered the market through dealers.

While directly placed paper outstanding rose in the May 1966 to May 1970 period by a substantial \$10.0 billion, there was no acceleration in growth comparable to that of dealer paper. Direct nonbank paper outstanding rose at a 20 percent annual rate from May 1966 to May 1970, compared with a 16 percent annual rise in the 1956-66 period. In this regard, the growth of direct paper outstanding in the late sixties seems to be a cyclical phenomenon. Measuring from cyclical lows, direct paper outstanding grew at a 30 percent annual rate from the end of November 1958 to the peak at the end of November 1960, and at a 24 percent rate from the low in November 1961 to the end of May 1966. Thus, the growth of direct paper in the 1966-70 period seems modest relative to past performances, given the expansion of the economy during recent years. In contrast, the rapid growth of dealer paper in the 1960's was apparently countercyclical. In the past, dealer paper has increased during recessions and declined or stabilized during periods of economic expansion. Thus, the unique feature of the commercial paper boom in the late sixties and early 1970 was the extremely rapid growth of dealer paper.

There is, of course, no single explanation for this rapid growth in the dealer market. A number of factors were at work, including very substantial corporate needs for external funds, limited bank credit availability in 1966 and

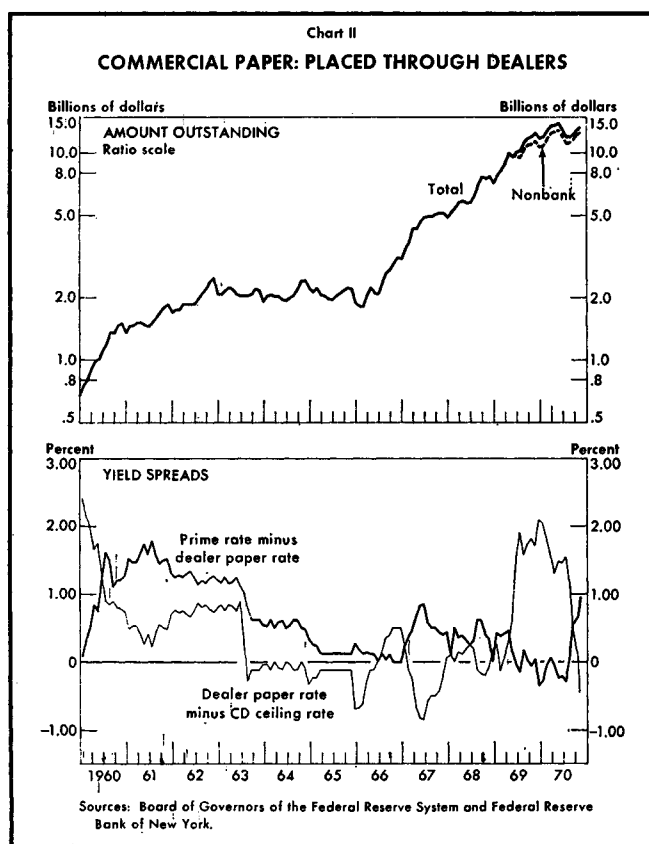
1969, and a significant cost advantage in favor of commercial paper borrowing as compared with bank borrowing in 1967, 1968, and early 1969. While all these factors contributed to the total supply of commercial paper, the supply of dealer paper rose particularly strongly as new borrowers entered the market through dealers (rather than establishing their own selling organizations) and as nonfinancial corporations, which borrow almost exclusively through dealers, were particularly pressed for funds. The growth of the market was also spurred by an increase in the number of dealers, and greater competition among them, in this period.

The "credit crunch" of 1966 proved to be a major and lasting stimulant to the growth of the commercial paper market, and to the dealer paper sector of the market in particular. As shown in Chart II, the amount of dealer paper outstanding began rising very sharply in mid-1966, after having been virtually level for three years. In large measure, this upsurge resulted from the reduced availability of bank credit at a time when corporate demands for external funds were burgeoning. Nonfinancial corporate investment in fixed capital and inventories jumped by \$14.3 billion in 1966—far exceeding the \$4.6 billion rise in internally generated funds (see Table III). As a result, the gap to be covered by external funds increased very sharply in 1966—to \$15.9 billion from \$6.2 billion in 1965. While part of this gap was filled by increased borrowing in the long-term capital markets, the relatively high level of long-term interest rates encouraged some corporations to meet their financing needs in the short-term

Table II  
DISTRIBUTION OF COMMERCIAL PAPER BY HOLDER  
Percent; end of period

Type of holder	1960	1965	1966	1967	1968	1969	1970-I	1970-II	1970-III
Total commercial paper .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nonfinancial corporations and others .....	52.2	72.2	64.4	60.2	70.7	73.4	74.1	74.0	74.3
Commercial banks .....	39.1	18.9	25.0	30.7	21.4	15.5	14.0	15.1	17.4
Life insurance and investment companies .....	8.7	8.9	10.6	9.1	7.9	11.1	11.9	10.9	8.3
Directly placed paper .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nonfinancial corporations and others .....	65.6	85.9	78.4	70.9	85.7	87.4	88.1	88.7	89.3
Commercial banks .....	25.0	9.9	17.7	24.8	11.3	7.1	5.1	5.3	3.7
Life insurance companies .....	9.4	4.2	3.9	4.3	3.0	5.5	6.8	6.0	7.0
Dealer-placed paper .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nonfinancial corporations and others .....	21.4	21.1	16.7	34.7	43.0	50.0	50.0	46.2	48.8
Commercial banks .....	71.4	52.6	50.0	44.9	40.3	29.7	29.4	33.8	40.8
Investment companies .....	7.2	26.3	33.3	20.4	16.7	20.3	20.6	20.0	10.4

Source: Board of Governors of the Federal Reserve System.



markets. However, this sharply increased need for external funds coincided with the reduced availability of bank credit as monetary restraint intensified. Commercial bank business loans plus loans to nonbank financial institutions—the two bank-loan categories that cover most commercial paper borrowers—rose by only \$3.9 billion in the last half of 1966 and the first quarter of 1967, some \$5.7 billion less than in the same period a year earlier. Thus, borrowers unable to secure sufficient bank credit turned to commercial paper as a supplementary or alternative source of funds, and the amount of nonbank commercial paper outstanding rose by \$5.3 billion from June 1966 to March 1967. Moreover, in some instances, commercial bankers—hard pressed to meet loan demands—encouraged borrowers to enter the commercial paper market, reportedly providing expanded credit lines when needed to enter the paper market.<sup>5</sup> Even when the avail-

ability of bank credit improved, the continuing large gap in the late sixties between corporate financing needs and internally generated funds encouraged the development of new sources of funds, such as commercial paper.

The ready availability of commercial paper credit for prime borrowers in 1966, at a cost equal to or less than that of bank credit, provided a dramatic demonstration to corporate treasurers of the advantage of participating in the paper market. This experience was reinforced by the fact that from early 1967 until the spring of 1969 the cost of issuing commercial paper was considerably below the cost of bank credit. As shown in Chart II, the prime dealer four- to six-month paper rate was generally 30 to 60 basis points below the banks' prime lending rate. While this spread in favor of commercial paper was much smaller than that typical of earlier years, the historically high level of interest rates in the late sixties probably made borrowers more rate conscious.

These rates, however, do not measure the full cost of borrowing either in the commercial paper market or from commercial banks, because compensating balances are required on both bank loans and on the "fall-back" bank credit lines maintained by commercial paper issuers, and they understate the commercial paper cost advantage to the extent that the issuers of commercial paper do not maintain credit lines (and therefore compensating balances) equal to the full amount of paper they have outstanding. A survey taken in 1964 indicated that 5 percent of the finance companies and 18 percent of the industrial companies issuing paper through dealers maintained unused bank credit lines of less than 50 percent of their outstanding commercial paper, while 23 percent of the companies issuing paper directly covered less than 50 percent of the outstanding paper with bank credit lines.<sup>6</sup> There are also reports—but no statistics—indicating that in the late sixties there was "a growing tendency for paper outstanding to be less than 100 percent covered by bank lines".<sup>7</sup> Large corporate borrowers, therefore, not only found it prudent to cultivate commercial paper as a supplement to bank credit in the light of the 1966 experience, but also found it profitable to do so. Thus, total nonbank paper outstanding rose \$7.6 billion from March 1967 to March 1969, with dealer paper accounting for \$4.6 billion of this gain.

<sup>6</sup> Nevins D. Baxter, "The Commercial Paper Market", *Econometric Research Program Memorandum 69* (Princeton, New Jersey: Princeton University, 1964).

<sup>7</sup> W. Giles Mellon, "The Challenge from Commercial Paper", *Bankers Monthly Magazine* (May 15, 1969), page 21.

<sup>5</sup> National Credit Office, *Current Industry Comment* (March 1968), page 7.

The fact that directly placed nonbank paper grew much more slowly than dealer paper in this period—despite a considerably wider margin between the direct paper rate and the banks' prime rate (see Chart III) than between the dealer rate and the prime rate—suggests that the large finance companies, which accounted for virtually all the direct paper at that time, were not under the same pressure as nonfinancial corporations to secure external funds.

Corporate cultivation of the commercial paper market was rewarded in 1969 and early 1970 when a new move toward monetary restraint coincided with another upsurge in corporate needs for external funds. As in 1966, the commercial paper market provided an alternative source of funds as the availability of bank credit contracted. From June 1969 to March 1970, commercial bank business loans (including loans sold to bank affiliates) plus loans to nonbank financial corporations rose by \$6.1 billion, compared with an \$11.2 billion gain in the same period a year earlier.<sup>8</sup> But the slack was again filled by nonbank commercial paper which increased by \$5.9 billion in the nine months ended March 1970, with dealer paper rising another \$2.9 billion.

Thus, burgeoning credit needs (largely cyclical for direct paper issuers and closely related to the investment boom for the nonfinancial corporations issuing dealer paper), as well as the limited availability and the generally high cost of bank credit, seem to account for the exceptionally rapid increase in the supply of commercial paper from mid-1966 to mid-1970.<sup>9</sup> But what of demand: how was the \$20.7 billion of new commercial paper issued in this period absorbed?

As already noted, nonfinancial corporations are probably the principal purchasers of commercial paper. The share of total paper outstanding held by nonfinancial corporations and others ranged from 60 percent to 75 percent between 1965 and the second quarter of 1970, with the share at the upper end of this range at the end of the period (see Table II). Assuming that nonfinancial corporations held the bulk of this paper, the figures in

<sup>8</sup> Bank credit availability might have been even more constrained in the June 1969-March 1970 period if the commercial banks had not been able to tap the commercial paper market for \$5.3 billion of funds.

<sup>9</sup> It has also been suggested that entry into the commercial paper market was "prestigious" in that the issuer joined the select company of the country's largest and supposedly strongest firms and that it paved the way for long-term financing in the capital market by establishing a continuing relationship with investors by the issuing company. See, for example, Charles H. Eggleston, "Short-Term Financing Through Commercial Paper", *Public Utilities Fortnightly* (May 23, 1968), page 32.

**Table III**  
**NONFINANCIAL CORPORATIONS:**  
**CAPITAL EXPENDITURES AND INTERNAL FUNDS**  
Billions of dollars

Period	Capital expenditures	Internal funds	Gap (1)-(2)
	(1)	(2)	(3)
1955.....	31.5	29.2	2.3
1960.....	39.0	34.4	4.6
1965.....	62.8	56.6	6.2
1966.....	77.1	61.2	15.9
1967.....	72.0	61.5	10.5
1968.....	76.9	62.5	14.4
1969.....	87.0	62.5	24.5
1970-III*	85.0	61.5	23.5

\* Averaged annual rates of flow, computed using data for the first three quarters of the year.

Source: Board of Governors of the Federal Reserve System.

Table IV indicate that the increase in corporate holdings of commercial paper was accompanied by a decline in money, time deposits, and United States Government securities in their liquid asset portfolios. Thus, corporate holdings of total liquid assets rose \$12.4 billion from the end of 1965 to the end of the first quarter of 1970, while open market paper (which consists almost entirely of commercial paper) rose \$21.0 billion. At the same time, money stocks fell \$4.2 billion, holdings of United States Government securities fell \$4.3 billion, and time deposits fell \$2.3 billion (for a combined decline in these last three asset categories of \$10.8 billion).

Moreover, a comparison with the early sixties suggests that in the later years commercial paper was primarily substituted for time deposits in corporate portfolios since corporate holdings of money and United States Government securities had been trending downward in any event. In contrast, the decline in time deposits in the latter part of the sixties represented a reversal of the strong uptrend in the first half of the decade. No doubt Regulation Q ceiling rates on large CD's—which were below open market rates in the latter part of 1966, the first half of 1968, and from the spring of 1969 to mid-1970 (see Charts II and III)—played an important role in inducing corporate treasurers to shift into commercial paper and away from CD's. In other words, the inability of commercial banks to compete for corporate and other funds for protracted periods in the late 1960's facilitated the rapid growth of the commercial paper market. On their part, banks reacted to this competitive disadvantage in a num-

ber of ways, of which their entry into the commercial paper market as issuers of paper through holding company affiliates and subsidiaries was one of the most dramatic and important.

#### DECEMBER 1968 TO MID-1970: COMMERCIAL BANKS AS ISSUERS OF COMMERCIAL PAPER

Monetary policy again shifted toward restraint in late 1968, and this restraint intensified in 1969. Interest rates rose sharply and exceeded Regulation Q rate ceilings on large CD's throughout the year and into 1970. As a result, the banks experienced a massive CD outflow. From the peak of \$24.3 billion on December 4, 1968, large CD's at weekly reporting banks fell steadily to a low of \$10.3 billion on February 4, 1970, a decline of \$14.0 billion in little more than a year (see Chart IV). With loan demand still strong, the banks sought funds through other channels in an effort to meet customer needs. Thus, Euro-dollar borrowings through their foreign branches rose \$6.8 billion in the December 4, 1968-February 4,

Table IV  
LIQUID ASSETS OF NONFINANCIAL CORPORATIONS  
Billions of dollars; end of period

Liquid assets	1960	1965	1969	1970-I	1970-II	1970-III
Demand deposits and currency .....	32.2	28.2	28.6	24.0	24.2	22.5
Time deposits .....	2.8	19.2	17.0	16.9	18.9	28.0
United States Government securities .....	19.5	17.0	13.1	12.7	11.1	7.6
Open market paper .....	2.4	6.5	23.2	27.5	27.8	25.2
State and local obligations.....	2.4	3.0	6.3	5.2	5.5	4.0
Total liquid assets .....	59.3	73.9	88.2	86.3	87.5	87.3

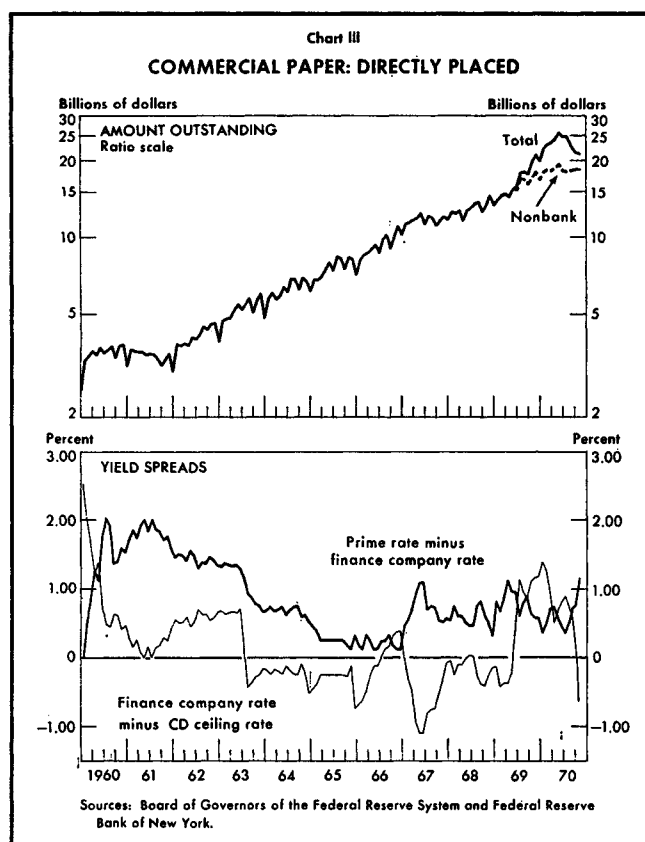
Source: Board of Governors of the Federal Reserve System.

1970 period. At the same time, the banks sought to exploit the commercial paper market as an additional source of funds.

Commercial bank borrowing in the commercial paper market was undertaken through subsidiaries and affiliates (such as bank holding companies). If banks had issued paper directly, the funds obtained would have been treated as deposits and made subject to reserve requirements and interest rate ceilings under Regulations D and Q. Instead, affiliates of banks issued the paper and channeled the proceeds to their associated banks through the purchases of loans from bank portfolios. As a result, there is a very close correlation between movements in the series on loans sold to affiliates by large commercial banks and the series on total bank-related commercial paper outstanding (see Table V).

While a few banks were apparently issuing commercial paper through subsidiaries and affiliates in late 1968, this development gained momentum in 1969. By early June, when the System first began to collect comprehensive information on bank-related commercial paper, the amount of such paper outstanding totaled \$860 million (with the bulk of this paper apparently placed in 1969). Thereafter, bank-related paper outstanding increased rapidly, reaching \$3.7 billion by the end of October 1969 (see Chart IV).

The growth of directly placed bank paper was particularly impressive, increasing from \$643 million at the end of June 1969 to \$2.6 billion at the end of October. Over the same period, dealer-placed paper increased by only \$486 million to a level of \$1.1 billion. Thereafter, almost all the growth in bank-related commercial paper was concentrated in directly placed paper. Unlike nonfinancial corporations, the large banks did not find it difficult or

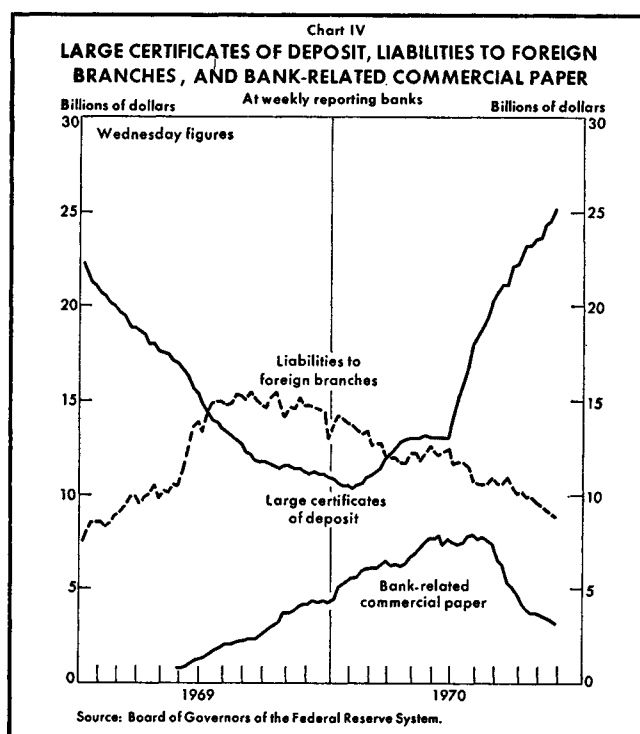


costly to sell paper directly—most of them already had been active in the money market and consequently had extensive investor contacts—and the spread between the issuing rates on direct and dealer paper encouraged them to place paper directly.

The Federal Reserve System was of course concerned by the rapid expansion of bank-related commercial paper. In the first place, some System officials believed that commercial bank exploitation of nondeposit funds (such as Euro-dollars and commercial paper) could subvert the System's policy of restraint. Indeed, some felt that the issuance of bank-related paper represented a blatant evasion of Regulations D and Q by the banks. Others were concerned with the fragmentation of the banking system that seemed to be in train as banks shifted financing activities to affiliates that were not under direct System control.<sup>10</sup>

The increasing bank use of the commercial paper market to raise funds, both in terms of the number of banks participating and the volume of their borrowings, led the Federal Reserve Board on October 29, 1969 to propose regulations designed to limit this borrowing. The Board proposed the application of Regulation Q interest rate ceilings on funds received by member banks from the issue of commercial paper or similar obligations. Since market rates were then about 2 percentage points above the applicable Regulation Q ceiling rates, the adoption of this proposal would have effectively barred banks from issuing commercial paper. Concurrently, the Federal Reserve Board also determined that the obligations of subsidiaries of banks were already subject to Regulations D and Q. However, on November 4 and again on November 26, the imposition of these regulations was suspended under the condition that the volume of individual bank commercial paper borrowing through subsidiaries not be increased. The affected banks were given reasonable time

<sup>10</sup> In addition, these commercial paper operations were beginning to affect the bank credit statistics, making them increasingly difficult to interpret. For example, the banks' practice of selling loans to affiliates as a method of acquiring funds raised in the commercial paper market resulted in an apparent reduction in bank credit as these loans disappeared from the banks' balance sheets. Thus, questions arose about the significance of the bank credit statistics and the treatment of loans held by bank affiliates. For example, in the third quarter of 1969 total loans reported by all commercial banks rose at a 3.1 percent seasonally adjusted annual rate. However, if loans sold to affiliates in this period are taken into account, the growth rate is raised to 5.3 percent. Most analysts have taken the position that the affiliates' loan holdings should be included in the banking data, particularly since the commercial paper issued by these affiliates was placed to acquire funds for their associated banks.



to adjust to the ruling, and accommodation was offered at the discount window to facilitate the adjustment process.

Shortly thereafter, the Federal Reserve Board was authorized by the Congress to apply reserve requirements under Regulation D to funds obtained by member banks through commercial paper issued by bank affiliates. The Board accordingly withheld further action on the October proposal, while it considered amending its rules to apply reserve requirements to the same type of paper. Later, when the Board announced it was raising Regulation Q ceiling rates on time and savings deposits effective January 21, 1970, it also indicated it was considering introducing a 10 percent reserve requirement on funds received through commercial paper issues of affiliates. However, the implementation of this proposal and that presented in October regarding Regulation Q ceilings were both deferred by the Board on February 24 to avoid additional stringency in money and credit conditions. In keeping with this decision, the Board also extended indefinitely the adjustment period for those banks acquiring funds through commercial paper issued by their subsidiaries. Thus, no action was taken on bank-related commercial paper until August 17, 1970, when it was made subject to reserve requirements.

During the period in which the Board was considering

**Table V**  
**BANK-RELATED COMMERCIAL PAPER AND LOAN SALES TO AFFILIATES**  
 Last Wednesday of the month

Period	Millions of dollars					Number of banks		
	Total bank-related commercial paper	Direct bank-related commercial paper	Dealer bank-related commercial paper	Total loans sold	Business loans sold	Total*	Direct	Dealer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>1969</b>								
June .....	1,245	643	602	2,102	1,031	†	†	†
July .....	1,864	975	889	2,672	1,793	32	32	19
August .....	2,249	1,300	949	3,151	2,101	36	28	18
September .....	2,595	1,641	954	3,652	2,385	42	31	21
October .....	3,732	2,644	1,088	4,557	3,191	51	40	23
November .....	4,218	3,018	1,200	4,665	3,305	51	41	24
December .....	4,294	3,078	1,216	3,896	2,477	48	41	25
<b>1970</b>								
January .....	5,528	4,262	1,266	5,832	4,282	52	42	28
February .....	6,052	4,781	1,271	6,402	4,795	54	45	27
March .....	6,518	5,295	1,223	6,679	5,148	57	47	28
April .....	6,627	5,539	1,088	6,960	5,391	58	47	27
May .....	7,550	6,424	1,126	7,822	6,207	62	48	28
June .....	7,553	6,509	1,044	7,838	6,293	59	48	28
July .....	7,770	6,784	986	8,018	6,164	61	48	27
August .....	7,257	6,455	802	7,789	5,809	62	49	25
September .....	4,586	4,081	505	5,123	3,592	63	49	25
October .....	3,671	3,151	520	4,103	2,969	59	49	21
November .....	3,127	2,601	526	3,611	2,520	59	49	18

\* Components do not add to total because some banks place paper both directly and through dealers.

† Not available.

Source: Board of Governors of the Federal Reserve System.

regulations on bank-related paper, the volume of such paper outstanding rose rapidly after a temporary slowdown in December 1969. From \$3.7 billion at the end of October 1969, bank-related paper rose to a peak of \$7.8 billion at the end of July 1970. During this interval, growth occurred almost entirely in directly placed paper, which increased from \$2.6 billion to \$6.8 billion. In contrast, the amount of dealer-placed bank-related paper reached a peak of \$1.3 billion in February 1970 and generally declined thereafter.

Although bank-related commercial paper continued to supply net new funds to the banking system through July 1970, the growth of bank-related paper after May was nominal. During this period, the need for commercial paper funds diminished steadily as the direct flow of funds into the banking system increased. The CD outflow ended in February after Regulation Q ceiling rates had been increased by the Board, and moderate inflows were experienced through late June. At the same time, the sharp rise in commercial paper rates reduced the relative attractiveness of this source of funds. Thus, the banks'

interest in the commercial paper market was waning as it approached the upheaval resulting from the Penn Central failure.

#### **JUNE TO NOVEMBER 1970: RETRENCHMENT AND RECOVERY IN THE COMMERCIAL PAPER MARKET**

The rapid expansion of bank-related commercial paper in 1969 and early 1970 added to the total supply at a time when the market was already beginning to labor under supply pressure as a result of the protracted upsurge in nonbank paper. Thus, in June 1969 the dealer paper rate moved above 8 percent for the first time since 1920,<sup>11</sup> and by July had reached the commercial bank prime rate for the first time since 1966 (see Chart II). In subsequent months the dealer paper rate moved even

<sup>11</sup> Rates are monthly averages of daily figures.



higher, and in December 1969 was about 35 basis points above the banks' prime rate. It remained above the prime rate through most of the first half of 1970. The direct paper rate also moved up sharply; nevertheless, it generally stayed at 50 to 100 basis points below the banks' prime rate in the latter part of 1969 and in early 1970 (see Chart III). These disparate rate movements suggest that the emerging supply pressures were concentrated in the dealer paper market, where growth had of course been most rapid since 1966.

While the sharp rise in paper rates had raised some questions regarding the continued growth of the market, few observers questioned the quality of the huge volume of commercial paper already outstanding. Indeed, through the late sixties the view gained currency that the quality of paper was improving because large corporate borrowers were entering the market at the expense of smaller firms. For example, in March 1968, the National Credit Office, in discussing "the market's growing exclusiveness" noted that "the ready availability of top quality paper, coupled with financial problems of a few finance companies, has tended to weed out lesser rated paper and many smaller firms have dropped out of the market".<sup>12</sup>

However, the confusion of corporate size with liquidity tended to mask some deterioration during this period of the quality of commercial paper outstanding. There are of course no statistics on commercial paper quality, but the fact that a number of firms in the market by 1970 had very high debt to equity ratios and/or income flows of dubious quality (some conglomerate, franchising, and equipment leasing companies, for example) suggests such a deterioration in the quality of outstanding paper.

In any event, some commercial paper dealers were reportedly becoming more selective in early 1970 of the paper they were willing to handle, and were requiring larger bank credit lines for issuers in some instances. The Federal Reserve System was also becoming increasingly concerned regarding the vulnerability of the paper market to internal or external shocks. Accordingly, in April 1970 the System began to collect weekly data on both direct and dealer nonbank paper outstanding. (Previously such information had been collected on a month-end basis only.)

The Penn Central Transportation Company filed its petition to reorganize under the Federal Bankruptcy Act on Sunday, June 21. The unexpected collapse of the nation's largest railroad, and sixth largest nonfinancial corporation, sent a major shock wave through the financial

markets in general and the commercial paper market in particular. At the time of its failure, Penn Central had \$82 million of commercial paper outstanding. Holders of paper issued by other large corporations became apprehensive about the low level of corporate liquidity as well as about the ability of borrowers to refinance existing debt, given the tight position of the banking system. The difficulties encountered by a number of brokerage firms, including some of the oldest and largest houses, and the fact that stock prices continued to fluctuate erratically added to the widespread uneasiness. Moreover, the Penn Central default came at a time when the amount of maturing commercial paper was seasonally high because of the midyear statement date.

Thus, a major run on commercial paper developed in late June, with the paper of some sound as well as weak corporations becoming suspect. In the week ended July 1, nonbank paper outstanding fell by \$2.25 billion, and in the next two weeks declined another \$714 million. Thus, in three weeks nonbank paper fell \$3.0 billion, or by almost 10 percent. Directly placed and dealer-placed paper each declined about \$1.5 billion in this interval.

The Federal Reserve System recognized the seriousness of the run on commercial paper and took decisive steps to contain it. Federal Reserve discount policy was temporarily liberalized to assure the availability of funds to banks and their customers. Banks were immediately informed that, "as they made loans to enable their customers to pay off maturing commercial paper and thus needed more reserves, the Federal Reserve discount window would be available".<sup>13</sup> Member bank borrowings through the discount window, which had averaged about \$660 million in the week ended June 17, rose to a peak of \$1.7 billion during the week ended July 15, then gradually fell back to the \$660 million level by the end of August. In addition, on Tuesday, June 23, the Board of Governors suspended Regulation Q interest rate ceilings, effective the following day, on large CD's of 30- to 89-day maturities, thus enabling banks to bid for funds that might be needed by corporations unable to renew maturing commercial paper. In the three weeks ended July 15, banks were able to acquire \$3.0 billion of new CD money. The Federal Reserve also prepared standby procedures to make credit available to worthy borrowers facing unusual liquidity requirements that could not be met by obtaining funds from other sources. However, it was not necessary to im-

<sup>12</sup> *Current Industry Comment* (March 1969), pages 9-10.

<sup>13</sup> See William F. Treiber, "Problems of Financial Community Under Constant Scrutiny", *The American Banker* (October 13, 1970), page 16.

plement these procedures. In undertaking this series of measures, the System recognized that it might have to let the money supply and bank credit temporarily grow faster than desirable over the longer run in order to maintain financial market stability.

Given the System's strong support, the commercial banks acted swiftly to assist creditworthy borrowers no longer able to secure adequate funds in the commercial paper market. As shown in Chart V, weekly reporting bank business loans plus loans to finance companies—the two categories which include most loans made to commercial paper issuers—rose by \$2.0 billion in the three weeks ended July 15, offsetting two thirds of the decline in nonbank commercial paper in this period. This action by the banks was instrumental in preventing additional commercial paper defaults and an accelerated flight from the market.

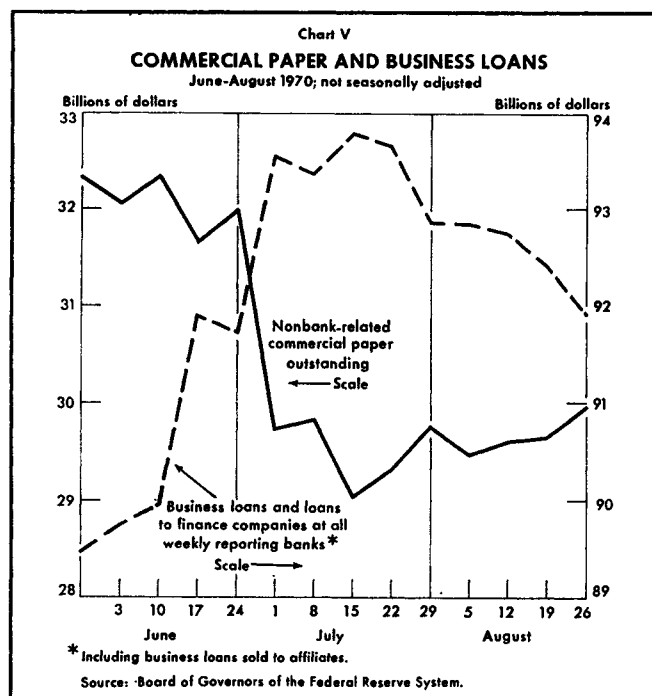
By late July the crisis in the commercial paper market was past. After reaching a low point of \$29.0 billion on July 15, total nonbank paper outstanding rose gradually, reaching \$31.2 billion at the end of November or some \$1.2 billion below the peak level reached on June 10.

Throughout this period there was a pronounced shift in investor selectivity. Investors moved out of maturing paper issued by weaker firms and into paper issued by firms of

unquestioned soundness. This selectivity was also reflected in the emergence of a range of rates on dealer paper of a given maturity, depending on investor assessment of the quality of the paper. The highest quality dealer paper is now issued at a cost approximately equal to that on direct paper, but other dealer paper issuers must offer higher yields to interest investors.

Bank-related commercial paper, however, did not benefit materially from this change in investor preferences. On August 17, the Board of Governors imposed reserve requirements on funds received by banks through the issuance of commercial paper to be applied beginning September 17. At the same time, the Board withdrew the authority of Reserve Banks to waive penalties for deficient reserves resulting from the issuance of commercial paper by bank subsidiaries.<sup>14</sup> In effect, these measures subjected bank-related commercial paper of less than thirty days' maturity to demand deposit reserve requirements, and such paper of longer maturities to time deposit requirements.

This action, along with the ready availability of CD funds to the banks, resulted in a sharp decline in outstanding bank-related paper (see Chart IV). As already noted, bank-related paper outstanding reached a peak of \$7.8 billion at the end of July. It remained close to this level through mid-August, when it became subject to reserve requirements. This move produced a swift decline in bank-related paper. Since an estimated one quarter to one third of such paper then outstanding was in maturities of less than thirty days, this implied that the banks would have had to pay interest on funds subject to demand deposit reserve requirements. Thus, by October 7, bank-related paper outstanding was down to \$4.1 billion, some \$3.7 billion below the late-July peak. Thereafter the amount of bank-related paper outstanding declined more gradually, to \$3.1 billion at the end of November. At that time, there was only \$526 million of bank-related paper placed through dealers still outstanding. Directly placed bank-related paper outstanding totaled \$2.6 billion, down \$4.2 billion from the July peak. The sharp decline in bank-related paper helped to ease the pressures on the nonbank sector of the market, but nonbank commercial paper already faced a strong new competitor for short-term investor funds as a result of the suspension of rate ceilings on large-denomination CD's.



<sup>14</sup> The Board also reduced the reserve requirement on commercial bank time deposits in excess of \$5 million from 6 percent to 5 percent, effective September 17.

**THE OUTLOOK FOR THE  
COMMERCIAL PAPER MARKET**

Little can be said with great confidence regarding the outlook for the commercial paper market. However, the following developments seem likely. First, the amount of bank-related paper outstanding will probably continue to decline gradually. While the banks would probably like to keep a foot in the commercial paper market so long as they are uncertain as to the System's intentions with respect to Regulation Q ceilings on large CD's, they may not be willing to pay the price of such an undertaking. Investors apparently prefer the direct liabilities of banks (such as CD's) to the liabilities of bank affiliates (such as commercial paper). Thus, the banks may have to offer a higher yield on commercial paper than on CD's to prevent a shift from the former to the latter. At the present time, commercial paper rates are approximately equal to CD rates in all maturities, suggesting the likelihood of a continued shift by investors from bank-related paper to CD's. Moreover, all CD rates are currently well below the applicable Regulation Q ceiling rates; thus, CD's are not likely to become noncompetitive in the near future. On balance, then, a continued gradual shift away from bank-related paper seems probable (at least so long as the Regulation Q ceiling rates on large CD's are inoperative).

Second, with respect to nonbank paper, the recent shift in investor preferences toward high-quality assets is not likely to change in the near future. This means that such instruments as Treasury bills will provide stronger com-

petition for commercial paper than in the sixties. Moreover, banks are again able to compete with commercial paper for investor funds. As a result, it seems likely that commercial paper rates will remain historically high relative to other short-term rates. (In November 1970, the dealer paper rate averaged 103 basis points above the Treasury bill rate and the direct paper rate averaged 85 basis points above the bill rate. In 1968 these spreads averaged 57 and 36 basis points, respectively.)

Such a development would make commercial paper a less attractive source of funds to borrowers than in the past. Also working in this direction will be dealer and investor demands for full coverage of outstanding paper by bank credit lines at a time when banks may be reluctant to extend such lines. Their experience in the wake of the Penn Central failure may well lead them to reevaluate the granting of credit lines that are likely to be used by weak borrowers at a time when the banks themselves are short of funds. In any event, the market is no doubt closed for the foreseeable future to all but the strongest firms. On the other hand, the strong firms will want to stay in the market, as an alternative to bank borrowing and other sources of funds, even if the cost advantages are less substantial than in the sixties. And investors should continue to find such paper attractive in terms of its flexibility in amount and maturity and in yield, particularly if paper rates remain high relative to other short-term placements. Taken together, these considerations suggest that the non-bank commercial paper market should experience renewed but modest growth.

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