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

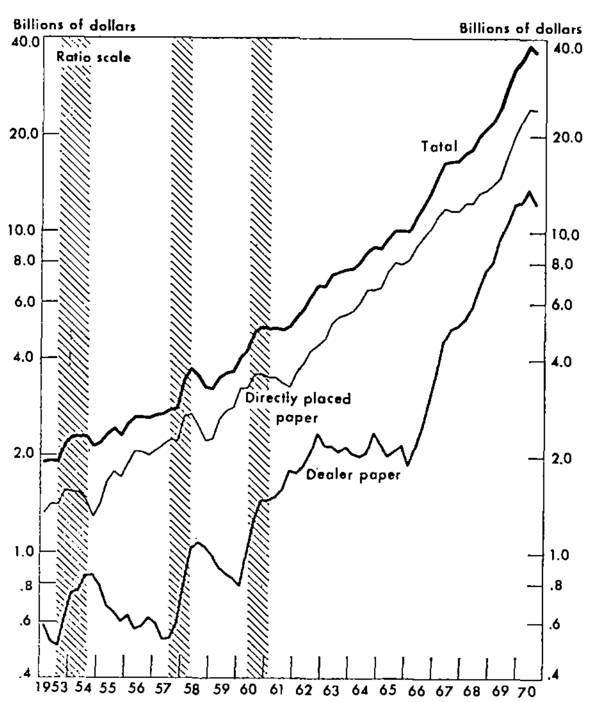
* The authors are Assistant Vice President, Research and Statistics function, and Economist, Domestic Research Department, respectively. They are indebted to Susan K. Skinner, Statistician, Domestic Research Department, for assistance in preparing this paper.

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.

Chart I

COMMERCIAL PAPER OUTSTANDING



Sources: Board of Governors of the Federal Reserve System and Federal Reserve Bank of New York.

The markets for directly placed paper and for paper placed through dealers differ in terms of both their supply and demand characteristics.[1] 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.[2] 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 that 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

1 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).

2 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,[3] 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.[4] 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-

[3] 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).

[4] 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

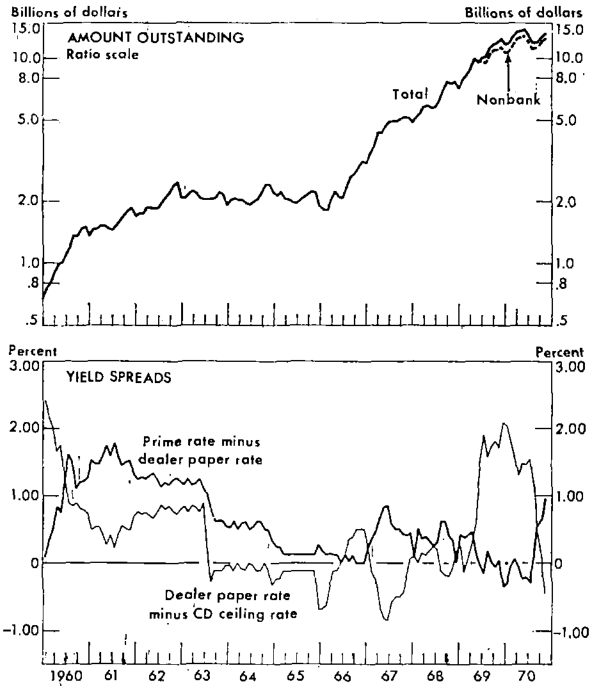
Percent; end of period

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.

Chart II

COMMERCIAL PAPER: PLACED THROUGH DEALERS



Sources: Board of Governors of the Federal Reserve System and Federal Reserve Bank of New York.

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.[5] Even when the availability 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.[6] 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".[7] 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.

[5] National Credit Office, *Current Industry Comment* (March 1968), page 7.

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

[7] W. Giles Mellon, "The Challenge from Commercial Paper", *Bankers Monthly Magazine* (May 15, 1969), page 21.

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.[8] 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.[9] 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 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-

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.

[8] 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.

[9] 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.

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.

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

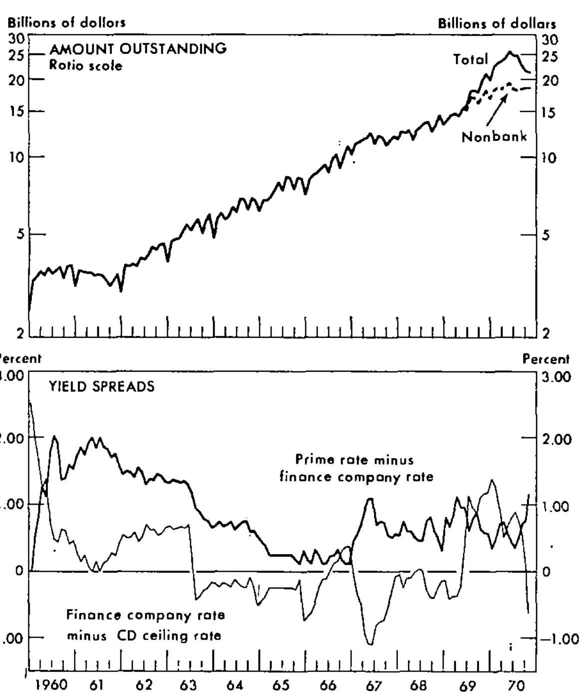
Source: Board of Governors of the Federal Reserve System.

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

Chart III

COMMERCIAL PAPER: DIRECTLY PLACED



Sources: Board of Governors of the Federal Reserve System and Federal Reserve Bank of New York.

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.

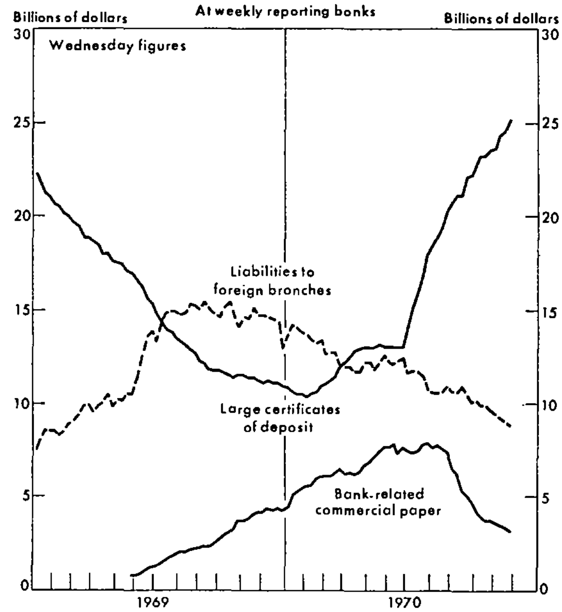
The Federal Reserve System was of course concerned by the rapid expansion of bank-related commercial paper. In the first place, some System officials believed that commercial bank exploitation of nondeposit funds (such as Euro-dollars and commercial paper) could subvert the System's policy of restraint. 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.[10]

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

Chart IV

LARGE CERTIFICATES OF DEPOSIT, LIABILITIES TO FOREIGN BRANCHES, AND BANK-RELATED COMMERCIAL PAPER

At weekly reporting banks



Source: Board of Governors of the Federal Reserve System.

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

[10] 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.

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)
1969								
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
1970								
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,[11] 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

[11] 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".[12]

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".[13] 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-

[12] *Current Industry Comment* (March 1969), pages 9-10.

[13] 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.

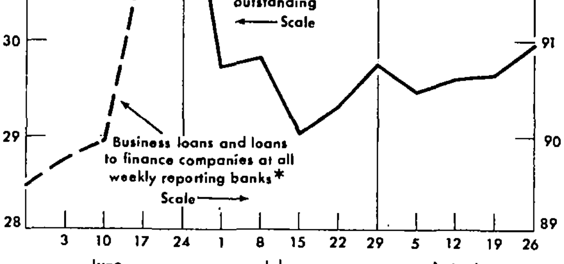
By late July the crisis in the commercial paper market was past. After reaching a low point of $29.0 billion on July 15, total nonbank paper outstanding rose gradually, reaching $31.2 billion at the end of November or some $1.2 billion below the peak level reached on June 10.

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.

Chart V

COMMERCIAL PAPER AND BUSINESS LOANS

June-August 1970; not seasonally adjusted



* Including business loans sold to affiliates.

Source: Board of Governors of the Federal Reserve System.

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.[14] 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.

[14] 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 competition 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 nonbank commercial paper market should experience renewed but modest growth.