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Four Decades of Change in the Commercial Paper Market

The Market in 1920

The earliest available estimate of commercial paper outstanding is for July 1918, when the Federal Reserve Bank of New York began reporting end-of-month figures. At that time, outstanding paper of thirty dealers, who presumably handled virtually all commercial paper, was $874 million—probably a record level.[1] During the next year and a half, outstanding dealer paper grew by nearly 50 per cent, reaching a peak of $1,296 million in January 1920. There was no direct paper until later in that year, when General Motors Acceptance Corporation began borrowing on short-term notes without the assistance of a dealer.[2]

Table 1 provides perspective on the size of the market at the beginning of 1920. The figures show that commercial paper was a distinctly

[1] See Appendix A for a complete record of monthly outstandings (without seasonal adjustment), July 1918 to December 1961. Note that before 1948 these data include only paper maturing within seven months.

[2] A number of other finance companies were borrowing short-term funds at this time through collateral trust notes, which in some cases were placed directly with banks (or possibly other lenders). These notes resembled commercial paper so closely that they should probably be included with the latter. Unfortunately, estimates of the magnitude of such borrowing are lacking, and the data on direct paper outstanding in the 1920's and 1930's therefore underestimate the size of the direct market. For further discussion of collateral trust notes, see p. 32 below.

The General Motors Acceptance Corporation notes referred to in the text, like the directly placed notes of other finance companies in this period, were secured. After 1926, however, GMAC notes were unsecured.

TABLE 1

COMPARISON OF COMMERCIAL PAPER AND OTHER FORMS OF DEBT, 1919

	Type of Debt	Amount (billion dollars)	Ratio to Total Commercial Paper (line 1)
1.	Total commercial paper	1.2	1.0
2.	Commercial paper placed through dealers	1.2	1.0
3.	Directly placed commercial paper	—	—
4.	Corporate short-term debt	22.3	18.6
5.	Corporate long-term debt	31.0	25.8
6.	Total corporate debt	53.3	44.4
7.	Federal government debt	25.6	21.3
8.	Bankers' acceptances	1.0	0.8
9.	Total loans of commercial banks	25.7	21.4
10.	Non-real estate loans of commercial banks	22.8	19.0

SOURCE: Lines 1 and 2: Appendix A; line 4: *Historical Statistics of the United States*, Department of Commerce, 1960, Series X 430; line 5: *ibid.*, Series X 429; line 6: *ibid.*, Series X 425; line 8: Benjamin Haggott Beckhart, *The New York Money Market*, New York, Columbia University Press, 1932, Vol. III, Part 2, p. 310; line 9: *Historical Statistics*, Series X 99, mean of June 30 figures for 1919 and 1920; line 10: *ibid.*, Series X 101, mean of June 30 figures for 1919 and 1920.

minor source of corporate funds despite the boom it was then enjoying. Similarly, bank loans (part of which consisted of commercial paper) and federal debt both were far larger than commercial paper debt even at that time. The volume of acceptances was still somewhat less than commercial paper outstanding, a situation that was soon to be reversed.

There were 4,395 commercial paper borrowers in 1920 (Table 2). Few details are available on the identity of borrowers prior to 1922, when the National Credit Office began its annual commercial paper releases. In that year one-third of the borrowing firms (734 of 2,259) were manufacturers, wholesalers, or retailers of textiles and dry goods; almost another one-fourth of the borrowers were in foodstuffs; and

TABLE 2

NUMBER OF COMMERCIAL PAPER BORROWERS, 1920-62

Year	Number of Borrowers	Year	Number of Borrowers
1920	4,395	1942	703
1921	3,676	1943	507
1922	2,259	1944	425
1923	2,171	1945	375
1924	2,705	1946	387
1925	2,754	1947	429
1926	2,743	1948	424
1927	2,490	1949	402
1928	2,354	1950	397
1929	1,653	1951	398
1930	1,674	1952	418
1931	1,239	1953	398
1932	651	1954	449
1933	548	1955	417
1934	625	1956	362
1935	654	1957	335
1936	692	1958	376
1937	782	1959	335
1938	728	1960	327
1939	731	1961	349
1940	734	1962	371
1941	773		

SOURCE: National Credit Office.

almost one-fifth were in metals and hardware.[3] Firms in leather and shoes and in lumber and furniture accounted for over half of the remaining 27 per cent of all borrowers. All parts of the country were well represented, but the Chicago, New York, and Boston Federal Reserve districts consistently accounted for about half of the borrowing firms during the 1920's.[4] According to one observer, much (though by no

[3] Industry classifications of borrowers for selected years, 1922-62, are presented in Appendix B.

[4] Roy A. Foulke, *The Commercial Paper Market*, New York, Bankers Publishing, 1931, p. 43.

means all) of the borrowing was seasonal in nature in 1920.[5] The average debt per borrower was $255,000 (Table 5).

It was noted above that the commercial paper market was virtually a dealer market in 1920, and that thirty firms were acting as dealers at that time. About six of these dealers, representing the various regions of the country, were affiliated in a correspondent system. This group and fourteen other firms accounted for nearly all of the volume; eight of them maintained extensive branch systems, with a total of seventy-seven branches across the nation. Although some dealers were engaged exclusively in the commercial paper business, most of them were active in other aspects of business finance, particularly securities underwriting. Average outstandings per dealer were about $37 million (Table 5).

Apparently, most paper was purchased outright from the borrower in 1920; on the whole, therefore, commercial paper houses functioned as dealers rather than as brokers. The purchase price was the face value of the notes, minus the discount computed at the prevailing market rate and minus the dealer's usual commission of one-quarter of 1 per cent of the face value (regardless of the note's maturity). Most paper was single-name and unsecured, although there was still a small amount of double-name paper in 1920, as well as some collateral notes. Maturities were in whole months, usually four to six.

The major commercial paper lenders four decades ago were commercial banks. According to a contemporary account:

> Sales are made to several types of purchasers. Banks in the larger financial centers buy either for their own account or for the account of correspondents. Country banks also buy a considerable amount direct from the commercial-paper houses, while corporations and insurance companies buy a small amount of paper. Sales to corporations are very small in the aggregate. All data received . . . do not place them at over 1 or 2 per cent of the total volume of sales. Sales to insurance companies are very rare.[6]

[5] William H. Steiner, "The Commercial Paper Business," *Federal Reserve Bulletin*, August 1921, p. 924. Unless otherwise indicated, the information that follows on the commercial paper market in 1920 is taken from this source.

[6] *Ibid.*, p. 923.

Greef (1938) says, "purchases by . . . corporations are probably much smaller at present than they were about 15 years ago" when some of the bigger New England textile mills were buying paper.[7] However, this comment is best interpreted as referring to the *absolute* decline in corporate commercial paper holdings that was part of the great fall in total paper outstanding between the early twenties and the middle thirties.

Banks were attracted to commercial paper for several reasons. Despite the absence of a secondary market, commercial paper was considered a highly liquid asset, along with call loans and acceptances. In part, this was because of its eligibility for rediscount at Federal Reserve banks, when within three months of maturity; but more fundamentally, it was because the lack of a customer relationship between borrower and lender largely eliminated requests for renewals or extensions. Furthermore, banks were able to diversify their risks by lending to borrowers in a broad range of industries and in distant regions. In addition, commercial paper provided an attractive outlet for bank funds during slack periods. Paper yields compared favorably with yields on most other assets available to banks in 1920. In December of that year, they were moderately above call money rates at the New York Stock Exchange and ninety-day time money rates in New York City, and substantially above bank rates on business loans in New York City, yields on ninety-day bankers' acceptances, and yields on long-term railroad bonds.[8] There were no Treasury bills at this time.

In summary, the commercial paper market was a minor source of short-term business funds and a minor but nevertheless significant component of bank earning assets at the beginning of 1920. Virtually all paper was held by banks. Direct placement of paper in the modern sense was unknown, as was the tailoring of maturities to lenders' specifications. Few if any finance companies were using the market at this time.

[7] Albert O. Greef, *The Commercial Paper House in the United States*, Cambridge, Harvard University Press, 1938, p. 304.

[8] Commercial paper yields have been analyzed thoroughly over the period January 1857 to January 1936 by Frederick R. Macaulay (*Some Theoretical Problems Suggested by the Movements of Interest Rates, Bond Yields and Stock Prices in the United States since 1856*, New York, NBER, 1938). See Macaulay's Table 10, p. A157, for paper and railroad bond yields and rates on call money and time money in New York City in 1920. For acceptance yields and rates on business loans of banks, see the Federal Reserve's *Historical Chart Book* (Washington, Board of Governors of the Federal Reserve System, issued in September of each year).

Changes in the Market, 1920-61

A number of striking changes have taken place in the commercial paper market since 1920. One of these is the dramatic downtrend in outstandings from 1920 to 1933 and the even more dramatic rise since 1945 (Chart 1). Others are the great reduction in the number of dealers and borrowers, the change in dealer operations and in the character of the paper itself, the rise of direct placement, and the emergence of nonfinancial corporations as the principal lenders and of finance companies as the principal borrowers.

SIZE OF THE MARKET

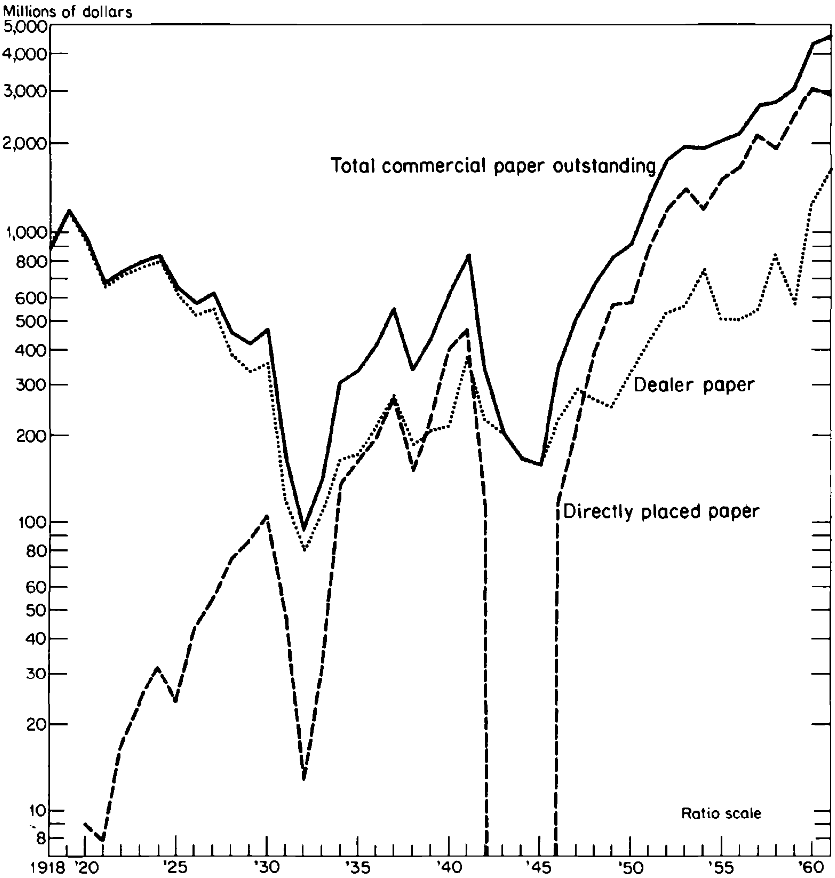
Since 1920 the commercial paper market has undergone major contractions and expansions, whether judged by the size of outstandings, number of dealers, or number of borrowers. In terms of outstandings, the net change has been strongly upward, quadrupling over these decades. However, the uptrend has not been continuous; in fact, there was a persistent downtrend in outstandings during 1920-32. Chart 1, reveals a striking disparity between the dealer and direct segments of the market in this early period. Throughout its history, direct paper has expanded, except for setbacks during recessions and during World War II. The decline in total paper outstanding after 1920 was solely a reflection of the decline in the then-predominant dealer paper segment. Furthermore, dealer paper has grown at a markedly lower rate than direct paper since 1932. A large part of the growth in outstandings has reflected the advancing price level since the Great Depression, but even on a corrected basis the commercial paper market clearly is much larger today than in 1920.

Despite its enlarged dollar volume, the commercial paper market remains a small component of the money market and a minor part of the American financial system (Table 3). Although outstanding paper greatly exceeds acceptances outstanding today, it is completely dwarfed by short-term Treasury obligations, business loans of commercial banks, and total corporate debt. It appears that the relative standing of commercial paper has not changed greatly since 1920.

While outstandings have been growing, the number of dealers has persistently declined since 1920. The dealer industry has long consisted

CHART 1

Directly Placed, Dealer, and Total Commercial Paper Outstanding, End of Year, 1918-61



Source: Appendix A.

of a handful of "permanent" members supplemented by an unknown number of sporadic participants, mostly small localized houses.[9] There is no exact count of dealers even today, but it is clear that there were many more in 1920 than at present. This is indicated by the declining number of firms that report monthly to the Federal Reserve Bank of New York (Table 4). There were only ten such firms in 1962, compared with thirty in 1920.[10] Most of the reduction in the number of dealers took place during 1927-33, when the number fell from twenty-seven to thirteen.

The shrinking number of dealers has been accompanied by an even greater reduction in the number of borrowers (Tables 2 and 5 and Chart 2). Over the entire period, the reduction was more than 92 per cent, with almost a 50 per cent reduction between 1920 and 1922 alone. The number was fairly constant from 1922 to 1928, but by 1933 there was only one borrower for every four in 1928. During World War II a further reduction took place, and the downtrend has continued irregularly and at a slower pace since the end of the war.

ROLE OF THE DEALER AND CHARACTER OF THE PAPER

It should already be clear that the *nature* of the commercial paper market, as well as its size, has undergone alterations since 1920. The principal changes of this kind are the rise of direct placement, the tailoring of maturities to lenders' specifications, a shift in the method of levying dealer charges, and a marked improvement in the quality of

[9] Describing the situation in the late 1920's, Foulke states that "in addition to the ten prominent brokers with their establishments of branch offices and the two correspondent groups, comprising in all twenty-one distinct brokerage enterprises, there are from nineteen to about forty-five small, local brokerage houses which are active intermittently from one year to another" (Foulke, *Commercial Paper Market*, p. 108).

[10] The Federal Reserve Bank of New York does not publish the names of reporting dealers. However, from direct inquiry of the leading firms it appears that the following firms reported their outstandings in 1962: Ashwell & Co., *Blanchett, Hinton, Jones & Granat, Inc., A. G. Becker & Co., Inc., *Conrad Bruce & Co., Goldman, Sachs & Co., Lahey, Fargo & Co., *McCluney & Co., *Piper, Jaffray & Hopwood, Salomon Brothers & Hutzler, and Weil, Pearson & Co. Firms designated by an asterisk are regional affiliates of Weil, Pearson & Co.; all other firms maintain either offices or headquarters in New York City, except Ashwell & Co., which operates in Chicago. A ranking of dealers in terms of outstandings is not available, but those close to the business agree that Goldman, Sachs & Co. is much the largest.

TABLE 3

COMPARISON OF COMMERCIAL PAPER AND OTHER FORMS OF DEBT, 1961

Type of Debt	Amount (billion dollars)	Ratio to Total Commercial Paper (line 1)
1. Total commercial paper	4.7	1.00
2. Commercial paper placed through dealers	1.7	0.36
3. Directly placed commercial paper	3.0	0.64
4. Corporate debt other than bonds and mortgages	38.2	8.13
5. Total corporate debt (except trade debt)	155.6	33.11
6. Treasury bills	43.4	9.23
7. U. S. marketable debt maturing within one year	84.4	17.96
8. Bankers' acceptances	2.7	0.57
9. Total loans of commercial banks	124.9	26.57
10. Commercial loans of commercial banks	45.2	9.62

SOURCE: Lines 1, 2, and 3: Appendix A; line 4: Federal Reserve "Flow of Funds/Saving Accounts," corporate sector, *Federal Reserve Bulletin,* April 1962, p. 481, line c plus line d; line 5: *ibid.,* line U (liabilities in the form of "credit and equity market instruments"); lines 6-10: *ibid.*

dealer paper. Many of these changes are closely related to the increasing importance of finance companies as commercial paper borrowers.

Direct Placement

Unquestionably the rise of directly placed paper from its origin in 1920 to its currently predominant position has been the most striking change in the commercial paper business during the past four decades. Direct paper grew persistently in the 1920's and 1930's, except during recessions, and by 1935 it had pulled even with dealer paper in terms of outstandings. Direct borrowing was suspended during most of 1943-45, but it recovered promptly after the war. Since May 1948, it has at all times exceeded dealer paper. At the end of 1961 direct paper was 64

TABLE 5

DEALER PAPER OUTSTANDING, PER BORROWER AND PER DEALER, 1920-61

Year	Per Borrower: Current Dollars (thousands)	Per Borrower: Constant Dollars (thousands)	Per Dealer: Current Dollars (millions)	Per Dealer: Constant Dollars (millions)
1920	255	254.2	37.4	37.3
1921	214	337.5	26.2	41.3
1922	335	533.4	29.1	46.3
1923	380	581.0	31.8	48.6
1924	319	500.0	33.2	52.0
1925	261	387.8	27.7	41.2
1926	218	335.4	23.0	35.4
1927	233	375.8	22.3	36.0
1928	204	324.3	20.0	31.8
1929	204	329.6	14.7	23.7
1930	272	484.8	21.7	38.7
1931	181	381.9	11.2	23.6
1932	149	353.9	6.5	15.4
1933	175	408.9	7.4	17.3
1934	240	492.8	11.5	23.6
1935	261	501.9	13.2	25.4
1936	277	527.6	14.8	28.2
1937	368	656.0	24.0	42.8
1938	334	653.6	20.2	39.5
1939	271	540.9	16.5	32.9
1940	320	626.2	19.6	38.4
1941	401	706.0	25.8	45.4
1942	440	685.4	28.1	43.8
1943	359	535.8	18.2	27.2
1944	414	612.4	17.6	26.0
1945	352	511.6	13.2	19.2
1946	450	571.8	17.4	22.1
1947	606	628.6	26.0	27.0
1948	665	637.0	28.2	27.0
1949	592	596.8	23.8	24.0
1950	720	698.4	28.6	27.7
1951	962	838.0	38.3	33.4
1952	1,282	1,148.7	53.6	48.0
1953	1,271	1,154.4	50.6	46.0
1954	1,601	1,451.5	71.9	65.2

(continued)

TABLE 4

NUMBER OF DEALERS REPORTING OUTSTANDINGS TO FEDERAL RESERVE BANK OF NEW YORK, 1918-62

Period	Number Reporting
July 1918 to December 1921	30
January 1922 to December 1927	26
January 1928 to April 1928	25
May 1928 to November 1928	24
December 1928 to October 1929	23
November 1929 to December 1929	22
January 1930 to October 1930	21
November 1930 to April 1931	20
May 1931 to September 1931	21
October 1931 to December 1931	20
January 1932	19
February 1932	18
March 1932	17
April 1932 to May 1932	16
June 1932 to February 1933	15
March 1933 to May 1933	14
June 1933 to April 1934	13
May 1934 to August 1934	12
September 1934 to January 1937	13
February 1937 to December 1941	12
January 1942 to February 1943	11
March 1943 to December 1962[a]	10

SOURCE: *Commercial Paper,* Federal Reserve Bank of New York, monthly release.

[a] During part of the period March 1943 to July 1959 there were only nine reporting dealers.

per cent of total paper outstanding. And impressive though this figure is, the direct paper share has been running in the neighborhood of 75 per cent in recent years, and has gone as high as 83 per cent in August 1957 (Chart 13).

During 1920-33 General Motors Acceptance Corporation was the sole direct borrower. It was joined by Commercial Credit Company and C.I.T. Financial Corporation in 1934, and by General Electric Credit Corporation in 1952. Table 6 lists the eleven direct borrowers as of

TABLE 5 (concluded)

Year	Per Borrower: Current Dollars (thousands)	Per Borrower: Constant Dollars (thousands)	Per Dealer: Current Dollars (millions)	Per Dealer: Constant Dollars (millions)
1955	1,468	1,326.1	61.2	55.3
1956	1,470	1,286.1	53.2	46.5
1957	1,513	1,286.6	50.7	43.1
1958	2,176	1,825.6	81.8	68.6
1959	2,200	1,841.0	73.7	61.7
1960	3,153	2,636.3	103.1	86.2
1961	4,481	3,762.4	156.4	131.3

SOURCE: Average dealer paper outstanding is mean of high and low month-end figures for each year as shown in Table A-1. Number of borrowers is taken from Table 2. Number of dealers was derived from Table 3. Constant-dollar estimates are current-dollar figures deflated by the Wholesale Price Index of the Bureau of Labor Statistics, 1947-49 = 100.

1961.[11] Ten of the eleven are sales finance companies and the other is a business finance company, by the definitions employed in this study. Six are subsidiaries of manufacturers or retailers. All eleven companies are large; collectively, they probably accounted for 90 per cent or more of sales finance company receivables in 1961. Outstanding commercial paper usually exceeds $50 million for even the smallest of these borrowers and reaches several hundred million dollars for the larger firms.

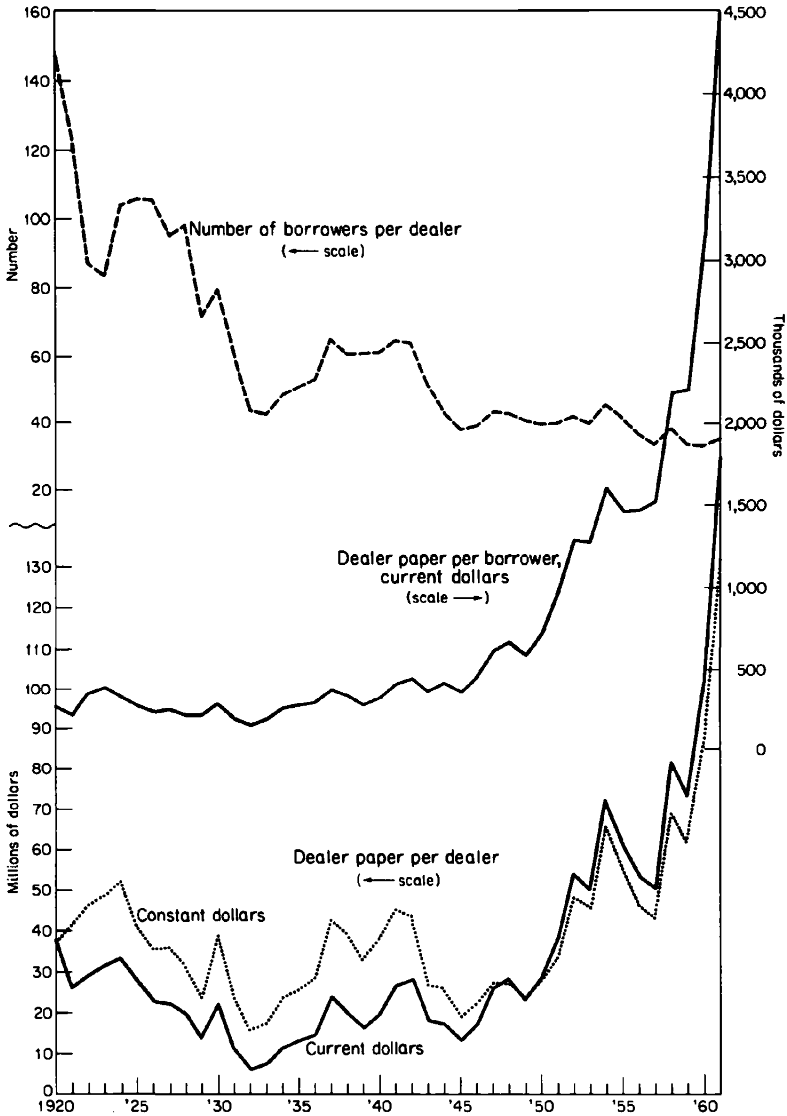
Direct borrowing has obvious advantages for a large and seasoned firm with a strong demand for short-term funds throughout the year. The dealer function involves significant costs that do not increase proportionately with borrowings, such as the costs of acquiring the basic financial know-how and of administering day-to-day operations. Apparently, the dealers have been slow to share these economies with

[11] At least one other large finance company was borrowing directly in 1961 but was not included in the Federal Reserve figures prior to their revision in June 1962. All magnitudes relating to direct paper in this study are based on the unrevised figures. In view of the minor nature of the revisions, it seemed pointless to delay the study until new calculations and charts could be made.

Late in 1962 the list of direct borrowers included James Talcott, Inc. and Westinghouse Credit Corporation. Another firm, J. C. Penney Company, was about to begin direct borrowing as this study went to press in mid-1963.

CHART 2

Dealer Paper Outstanding Per Borrower and Per Dealer and Number of Borrowers Per Dealer, 1920-61



Source: Same as Table 5.

their heavy borrowers, with the result that the largest of them have had a strong incentive to perform the dealer function for themselves. It should be noted that General Motors Acceptance Corporation borrowings were far above the average for all borrowers even in 1920 and that by 1924 the corporation's borrowings were nearly as large as average dealer paper per dealer (Tables 5 and A-2).

A reduction in the cost of dealer services is not the only advantage of direct placement. Dealers and banks have always imposed various rules on paper borrowers, such as the requirement that borrowers maintain unused credit lines at banks equal to outstanding paper, in order to protect the quality of the notes they handle. Although these rules serve a useful function, they may be unduly restrictive when applied to the largest borrowers. In bypassing the dealer the direct borrower obtains greater freedom in conducting its financial affairs. Similarly, dealers may be less willing than direct borrowers to innovate—for instance, by offering lenders very short-term paper. Also, the borrower may feel that it can contact potential lenders more aggressively and effectively than a dealer who has the notes of a number of competing borrowers to place.

One of the more significant results of direct placement has been an improvement in the liquidity of commercial paper. There has never been an active secondary market in dealer paper, and its qualifications as a liquid asset are based on short maturities, together with the lack of any customer relationship that might compel lenders to renew loans at maturity. Of course, direct paper has no secondary market either, but direct borrowers will repurchase their notes if the lender is faced with an unforeseen need for cash. Direct borrowers certainly do not encourage such repurchases, but their willingness to make them does increase the liquidity of direct paper substantially.

Maturities

Four decades ago, when virtually all commercial paper was industrial paper, maturities were generally four, five, or six months. The same is true today of industrial paper, but in the meantime this paper has become a relatively minor part of the market.

The maturities of finance paper, on the other hand, whether dealer or direct, cover a much wider range; furthermore, they mature on any date specified by the lender. The maturity range varies among borrowers, although nearly all finance companies offer paper in the 30- to 270-day

TABLE 6

DIRECT COMMERCIAL PAPER BORROWERS REPORTING TO FEDERAL RESERVE BANK OF NEW YORK, LATE 1961

	Date When Direct Placement Began
Associates Investment Company	1953
C.I.T. Financial Corporation	1934
Commercial Credit Company	1934
Ford Motor Credit Company	1961
General Electric Credit Corporation	1952
General Finance Corporation	1955
General Motors Acceptance Corporation	1920
International Harvester Credit Corporation	1957
Montgomery Ward Credit Corporation	1960
Pacific Finance Corporation	1958
Sears Roebuck Acceptance Corporation	1957

SOURCE: *Commercial Paper*, Federal Reserve Bank of New York, monthly release; and borrower representatives.

range.[12] A few direct borrowers (e.g., Sears Roebuck Acceptance Corporation, Commercial Credit Company, and Associates Investment Company) have been emphasizing even shorter maturities in recent years; in at least one case funds are borrowed over weekends. In the other direction, many finance companies borrow for more than 270 days, and some for even more than a year. These longer-term borrowings must be handled as "private offerings" if registration with the Securities and

[12] However, the president of a small Chicago dealer firm that specializes in finance paper has indicated a narrower maturity range for his clients: "Large national companies will issue a note to mature next Wednesday at two o'clock. This kind of money has little or no value to our smaller companies. For this reason, we confine our maturities to four to eight months, with an occasional ninety-day note" (John W. Ashwell, president, Ashwell & Company, address before American Finance Conference, Chicago, Illinois, November 6, 1958).

Exchange Commission is to be avoided. The proportion of direct paper in the 271- to 365-day category has been very small in recent years—between 3 and 5 per cent; hardly any dealer paper falls into this category.

No data are available on the average maturity of dealer paper. For direct paper, however, there are two sets of monthly estimates: those of Jacobs, for February 1947–May 1956;[13] and those prepared during the course of this investigation, for January 1953–December 1960 (Table 7). Jacobs found a lengthening of maturities during 1947-51, from a two-to-three-month range to one of three and a half to four months, with little if any trend thereafter. The estimates in Table 7, in contrast to Jacobs' figures, show a rising trend during the 1953-54 recession to about six months. The discrepancy may result from the fact that in 1953 and 1954 Jacobs' estimates were based on data from two direct borrowers, while those in Table 7 were based on the figures of a single (third) borrower. From 1955 on, a trend toward shorter maturities is evident in Table 7, and by 1959 maturities had returned to their 1947 length of two to three months.

The origin of the practice of tailoring maturities of finance paper to lenders' specifications is not known with any certainty. According to one dealer representative of many years experience, this has been strictly a postwar phenomenon in the case of dealer paper.[14] Apparently the practice grew up in the direct market after the early 1930's, when the three largest finance companies began to tap nonbank sources of commercial paper funds in volume, and was later adopted in the dealer market as these same sources became interested in dealer paper.

Dealer Charges

The traditional flat one-quarter of 1 per cent commission regardless of maturity was largely abandoned sometime in the 1930's and replaced by differential rate quotations to borrowers and lenders.[15] In most cases

[13] Donald P. Jacobs, "Sources and Costs of Funds of Large Sales Finance Companies," *Consumer Instalment Credit*, Washington, Board of Governors of the Federal Reserve System, 1957, Part II, Vol. 1, Chart 9.

[14] The tailoring of maturities has had an interesting side effect on dealer operations: most finance paper is now "bought as sold"; i.e., in effect it is handled on a brokerage basis.

[15] William H. Steiner (*Money and Banking*, New York, Henry Holt, 1933, p. 325) states that "from about 1920 to 1923, when paper was difficult to sell, several dealers obtained 1/2 of one per cent [instead of 1/4 of one per cent], but later reduced their charge again." Steiner also states that a very few large borrowers paid only one-eighth of one per cent, and that commissions were sometimes "split" on paper with very short maturities.

TABLE 7

ESTIMATED AVERAGE MATURITY OF DIRECTLY PLACED PAPER, END OF MONTH, JANUARY 1953–DECEMBER 1960
(months)

Month	1953	1954	1955	1956
January	4.0	5.3	4.3	3.5
February	3.9	4.2	3.7	4.3
March	5.4	4.3	3.9	3.5
April	5.1	4.1	3.8	3.3
May	3.7	5.3	3.5	2.8
June	3.3	5.7	3.7	3.0
July	3.8	5.4	3.8	3.0
August	3.5	4.9	3.2	2.6
September	3.9	6.1	3.3	2.6
October	4.8	6.5	3.5	2.8
November	3.7	6.0	3.3	2.8
December	4.9	5.4	3.4	2.8
Month	**1957**	**1958**	**1959**	**1960**
January	3.5	3.4	3.2	2.5
February	2.9	3.3	2.3	2.9
March	2.8	3.1	2.9	3.2
April	2.9	3.1	2.8	2.6
May	2.8	2.9	2.5	2.5
June	2.8	2.9	2.6	2.6
July	2.7	2.8	2.5	2.4
August	2.5	2.4	2.2	2.4
September	2.6	2.2	2.4	2.6
October	2.7	3.1	2.5	2.4
November	2.6	2.9	2.3	2.4
December	3.3	3.1	2.7	2.8

SOURCE: Data furnished by one direct borrower, 1953-60, by a second firm, 1955-60, and by a third firm, 1958-60.

dealers now purchase notes from borrowers at one price and sell (or hope to sell) them to lenders at a higher price (lower yield). The minimum rate spread, available to the strongest borrowers, has been one-quarter of 1 per cent for many years. It should be noted that with the adoption of this system the cost of commercial paper funds fell significantly relative to yields obtained by lenders and to the cost of bank credit. Under the earlier system, a flat commission of one-quarter of 1 per cent on three-month paper meant a cost of 1 per cent per annum.

Apparently this shift took place during the Great Depression. As early as 1932 Beckhart observed that "occasionally no commission is charged and the profit arises from the difference in spread between the buying and selling rates. Competition, leading to a smaller profit margin, is forcing this practice into wider use, though the commission method is far from being superseded."[16] This was an extremely difficult period for commercial paper, as we have seen, one in which dealer competition must have been keen. During the 1920's, when paper rates were almost always above 4 per cent, the commissions were a relatively small part of total borrowing costs. By the summer of 1931, however, paper rates had dipped below 2 per cent. From the middle of 1934 until early 1947, they were 1 per cent or less. With such low rates, the level of dealer commissions became relatively much more important to the borrower, and undoubtedly they became the object of increasingly hard bargaining.

Quality of Paper

Another striking change in commercial paper since the early 1920's has been its marked improvement in quality, as measured by the number of defaults (or "embarrassments," as they are known in the trade) and the size of losses.[17] Table 8 presents annual data on these aspects of quality since 1920. Defaults occurred in every year of the prosperous 1920's, and losses were nearly $1 million in 1924. On the whole, the market behaved commendably during the catastrophic credit liquidation of 1929-33. Defaults were far fewer than in the 1920-21 recession. This is what one would expect, of course, since the number of borrowers also had declined. Losses were higher in 1931 than in any year since 1925,

[16] Benjamin Haggott Beckhart, *The New York Money Market,* Vol. III, Part 2, New York, Columbia University Press, 1932, p. 224. Steiner (*Money and Banking,* p. 325) speaks, in 1933, of "a newer method forced by competition, which is fairly general, but still far from usurping the leading position held by the commission practice."

[17] Another measure of quality is the rating assigned by the National Credit Office: prime, desirable, satisfactory, fair, or not recommended. These ratings are of the utmost importance to commercial paper borrowers at any point in time, but their significance as indicators of quality change over time is doubtful. In any case, there are no time series on the distribution of outstanding paper by rating classes.

TABLE 8

DEFAULTS AND LOSSES ON COMMERCIAL PAPER SINCE 1920[a]

Year	Number of Defaults	Size of Losses (dollars)	Losses as Percentage of Dealer Paper Outstanding, End of Year
1920	31	n.a.	n.a.
1921	46	n.a.	n.a.
1922	7	112,500	0.015%
1923	7	212,500	0.027
1924	16	996,250	0.124
1925	11	789,700	0.127
1926	4	304,750	0.057
1927	5	610,875	0.110
1928	2	n.a.	n.a.
1929	7	118,575	0.035
1930	7	353,775	0.098
1931	16	771,000	0.642
1932	2		
1933	8	21,750	0.019
1934	1		
1935	0		
1936	1	47,250	0.021

SOURCE: 1920-28: Beckhart, *New York Money Market*, Vol. III, p. 237; 1929-35: Herbert V. Prochnow and Roy A. Foulke, *Practical Bank Credit*, New York, Prentice-Hall, 1939, Table X.

[a] From 1937 to 1961, there were seven defaults, one each in 1937, 1938, 1939, 1941, 1948, 1950, and 1961 (National Credit Office). There were no losses during this period.

and, expressed as a percentage of dealer paper outstanding, they were over six-tenths of 1 per cent—about five times as high as in 1925. However, losses were negligible in 1933 and nonexistent in 1932, 1934, and 1935. Since the Great Depression, commercial paper has had an excellent record. The last year in which lenders sustained a loss was 1936, and extensions have been made on only three occasions since World War II.

This sharp improvement in quality reflects the altered character of commercial paper since the early 1920's. Most of today's borrowers are sizable firms with national reputations. Furthermore, today's dealers are experienced firms that do not casually take on new accounts; in addition, the reduced number of borrowers per dealer (see Chart 2) means that dealers are able to keep a close watch on the financial condition of borrowers. This emphasis on quality has facilitated the tapping of nonbank lenders, a development to which I now turn.

SOURCES OF FUNDS

The most notable change in the sources of commercial paper funds since 1920 has been the displacement of banks as the major lenders by nonfinancial corporations. While this shift has taken place to some extent even within the dealer market, it has resulted mainly from the rising importance of the direct market, which has long relied heavily on nonbank sources.

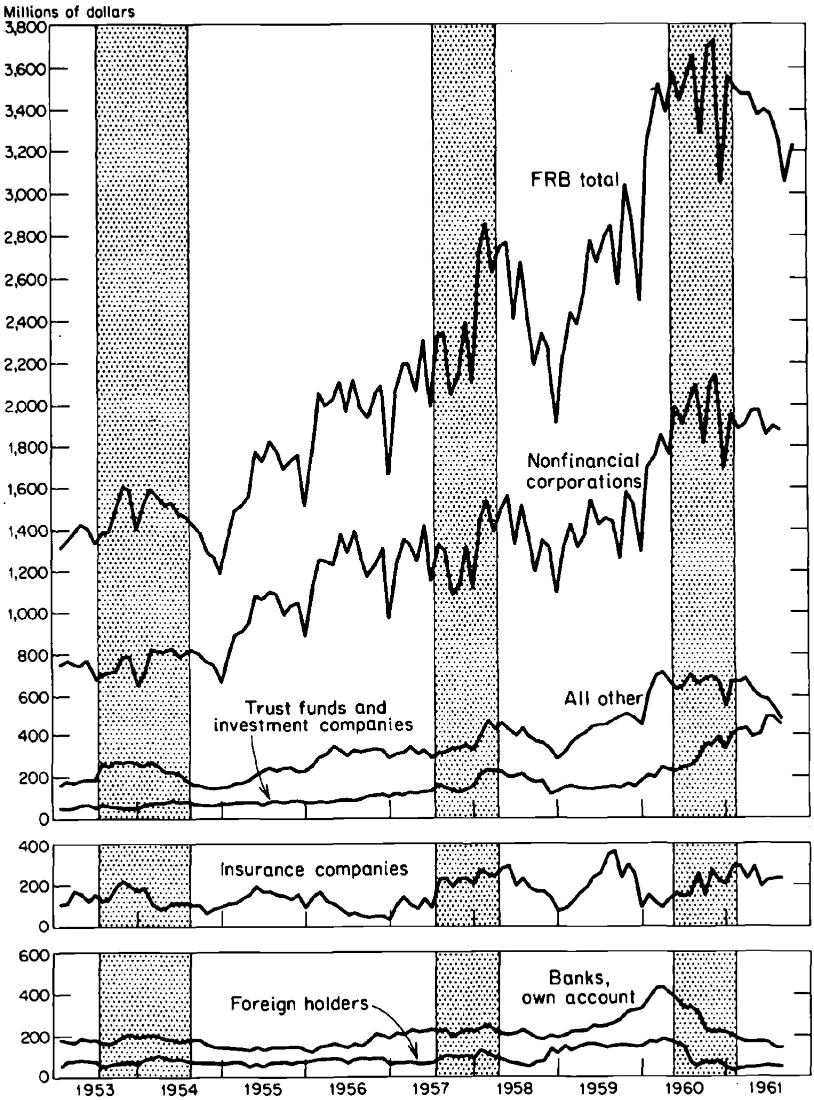
Estimates of month-end holdings of direct paper by the major groups of lenders are shown in Chart 3. These estimates were derived by computing weighted average distributions of the paper of six borrowers and applying these averages to the Federal Reserve series on direct paper outstanding. The classification system is far from ideal. The principal shortcoming is the inclusiveness of the "all other" group, which covers paper acquired by banks as agents for others as well as holdings of individuals, educational institutions, governments, and so forth. In many instances banks act as agents for their smaller correspondents, but they are also active on behalf of their corporate and individual customers. These undisclosed transactions have become quite important in recent years.

As of late 1961 nonfinancial corporations were identified as holders of about $1.9 billion of direct paper, or 61 per cent of the total. Next in importance were the "all other" group, with between $500 and $550 million, and "trust funds and investment companies," with only slightly less. The other three groups—insurance companies, banks, and foreigners—were relatively small holders, in the $50- to $250-million range.[18] These last three groups have lost ground relative to the first three since 1953—a trend that has probably been under way since the mid-1930's.

[18] Holdings of foreigners are seriously underestimated throughout the period because one large borrower has not classified these holdings separately. This firm's foreign-held paper appears largely in "banks, own account."

CHART 3

Directly Placed Commercial Paper, by Type of Holder, End of Month, January 1953–September 1961



NOTES TO CHART 3

Note: Shaded areas represent business cycle contractions.

Source: FRB total is from Appendix A; all other data are estimated holdings of direct paper at end of month by designated groups. Estimates were made by assembling end-of-month classifications of outstanding paper by type of holder, prepared by several direct borrowers. These borrowers accounted for well over half of all direct paper outstanding in all months. Percentage distributions were computed for these firms and applied to the Federal Reserve monthly series on direct paper outstanding.

Jacobs has asserted that "prior to World War II, commercial banks were the major purchasers of directly placed commercial paper."[19] Undoubtedly this was the case in 1935-36, but the figures in Table 9 suggest that by 1940 banks were no longer the major holders, even though finance paper within ninety days of maturity had become eligible for rediscount for the first time on October 1, 1937. If we assume, contrary to fact, that all dealer paper outstanding at the end of June 1940 was held by banks, then the remaining paper holdings of banks presumably consisted of direct paper. This residual was only 44.3 per cent of total direct paper outstanding on that date, and by the end of 1941 it had fallen to 35.7 per cent.

The rising importance of nonfinancial corporations and the declining importance of banks in the direct paper market was noted in 1939 by Foulke and Prochnow: "Whereas practically all paper handled by commercial paper brokers is sold to banking institutions, the notes of . . . [the three direct borrowers] are constantly in demand by railroads, public utilities, insurance companies, industrial and commercial business enterprises, which have surplus funds available for short-term investments."[20] Probably the major reasons for this development were the elimination of interest on demand deposits under the Banking Act of 1933 and the willingness of finance companies to borrow funds for whatever period lenders were willing to lend them. With flexible maturities and yields greater than zero, direct paper was a formidable competitor to demand deposits.

Unfortunately, data comparable to those shown in Chart 3 are not available for the dealer portion of the commercial paper market. Representatives of some dealers have stated that in recent years the ownership

[19] Jacobs, "Sources and Costs of Funds," p. 378.

[20] Roy A. Foulke and Herbert V. Prochnow, *Practical Bank Credit*, New York, Prentice-Hall, 1939, p. 524.

TABLE 9

ESTIMATED BANK HOLDINGS OF DIRECTLY PLACED PAPER, 1934-41
(million dollars)

Date	Dealer Paper Outstanding (1)	Direct Paper Outstanding (2)	Commercial Paper Held by Banks (3)	Estimated Bank Holdings of Direct Paper (4)	Bank Holdings as Percentage of Total Direct Paper (5)
June 1934	151	115	219	68	59.1%
December 1934	166	135	257	91	67.4
June 1935	159	153	285	126	82.4
December 1935	171	166	310	139	83.7
June 1936	169	327	319	150	45.9
December 1936	215	199	378	163	81.9
June 1937	285	272	441	156	57.4
December 1937	279	273	420	141	51.6
June 1938	225	203	340	115	56.6
December 1938	187	151	283	96	63.6
June 1939	181	179	284	103	57.5
December 1939	210	228	331	121	53.1
June 1940	224	298	356	132	44.3
December 1940	218	394	372	154	39.1
June 1941	299	471	458	159	33.8
December 1941	375	465	541	166	35.7

SOURCE: Cols. 1-2: Appendix A; Col. 3: *Banking and Monetary Statistics,* Board of Governors of the Federal Reserve System, 1943, p. 109, for all insured commercial banks; col. 4: col. 3 minus col. 1; col. 5: ratio of col. 4 to col. 2, multiplied by 100.

pattern of dealer paper has been broadly the same as that of direct paper. This may be doubted, however, for three reasons. First, the regular end-of-year decline in outstandings, nearly all of which is attributable to nonfinancial corporate holdings, is much less for dealer paper than for direct paper.[21] Second, there is evidence that banks were

[21] The December seasonal adjustment factors for the Federal Reserve dealer paper series, 1953-60, are: 95.9, 95.4, 94.7, 93.7, 92.8, 91.8, 91.2, and 90.8. For the directly placed paper series, the adjustment factors are: 86.1, 85.3, 84.6, 83.9, 83.4, 83.3, 83.4, and 83.4.

the largest holders of dealer paper as recently as 1955, even though their direct paper holdings are minor. According to the October 5, 1955, survey of business loans, member banks held $640 million of commercial paper on that date.[22] Of this amount, $396 million consisted of sales finance paper, including direct paper. Thus member banks held a minimum of $244 million of dealer paper at a time when total dealer paper was about $560 million. Undoubtedly, nonmember banks held a few million dollars of dealer paper as well. Furthermore, according to the estimates underlying Chart 3, banks held in the neighborhood of $175 to $200 million of direct paper in October 1955; deducting this amount from the $396 million of sales finance paper held by member banks leaves an additional $200 to $225 million of dealer paper held by commercial banks. Altogether, therefore, it appears that banks were holding $450 to $475 million of the $560 million of dealer paper outstanding in early October 1955. This interpretation is consistent with the statement of one dealer in 1958 that "a large part of the notes sold through our organization go to country banks."[23]

Finally, Jacobs' survey of the marketable securities held by 209 large nonfinancial corporations as of the end of 1957 has revealed direct paper holdings of $539.1 million but dealer paper holdings of only $8.3 million.[24] Total dealer paper outstanding at that time was $551 million, so this group of firms held only 1.5 per cent of the total, compared with the 25.5 per cent of total direct paper held by them. Even if generous allowances are made for dealer paper holdings of nonfinancial corporations not included in the Jacobs survey, it is clear that all nonfinancial corporations held only a small part of total dealer paper at the end of 1957. The commercial banks are the only likely alternative holders of the bulk of this paper. There may well have been a shift away from banks and toward nonfinancial corporations since 1957, but there is no evidence that the latter group had supplanted the former by 1960.

The relative decline of commercial banks as holders of commercial paper seems likely to continue, particularly in the dealer segment of the market. Corporate boards of directors have been cautious in their search for yield on liquid assets. Investment of corporate liquid funds in short-

[22] *Federal Reserve Bulletin*, April 1956, p. 337.

[23] Ashwell, address, American Finance Conference.

[24] Donald P. Jacobs, "The Marketable Security Portfolios of Non-Financial Corporations, Investment Practices and Trends," *Journal of Finance*, September 1960, p. 343.

term government securities has long been accepted; more recently, investment in directly placed commercial paper has become widespread. The next logical step, which has already been widely taken, is investment in prime dealer finance paper. Yield differentials have grown to the point where, in the last few years, investors in dealer paper have been able to earn significantly more than investors in direct paper without substantially greater risk and with nearly the same flexibility in maturities.[25] As investment policies are liberalized, more nonfinancial corporations, universities, and other lenders are likely to turn to the dealer market. At the same time, as the banking system becomes consolidated and branch systems grow in importance, banks probably will rely less on commercial paper for diversification of risks and seasonal adjustments in earning assets.

[25] See Chart 12. Note, however, that the yield differentials shown there are based on comparison of four- to six-month dealer paper with two- to three-month directly placed paper. The differentials would, of course, be somewhat smaller if similar maturities were compared.