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Volume Title: Trends and Cycles in the Commercial Paper Market

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Volume Publisher: UMI

Volume ISBN: 0-87014-399-9

Volume URL: http://www.nber.org/books/seld63-1

Publication Date: 1963

Chapter Title: Conclusions

Chapter Author: Richard T. Selden

Chapter URL: http://www.nber.org/chapters/c1924

Chapter pages in book: (p. 83 - 92)

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Conclusions

Summary of Findings

MAJOR TRENDS SINCE 1920

Striking changes have taken place in the commercial paper market since 1920. In two respects the market is much smaller today: the number of borrowers (only 349 in 1961) has diminished by over 90 per cent, and the number of dealers (10 in 1961) by about two-thirds. On the other hand, a third and more meaningful criterion of size—the volume of paper outstanding—has shown unusual growth, after having experienced a drastic decline from 1920 to 1932. In 1961 outstanding paper was more than four times as large as in 1920. As a result of these changes, there are only about thirty-five borrowers per dealer today, compared with four or five times as many four decades ago. However, outstanding dealer paper per dealer, at $156.4 million in 1961, was more than four times as high as in 1920; and outstanding dealer paper per borrower ($4.5 million in 1961) was eighteen times higher than in 1920. The rise in these ratios is almost as great after correction for price level changes. Most of the rise occurred in the last decade.

No simple explanation could be found for the period of contraction, 1920-32. The declines of the early 1920's were associated with the severe business cycle contraction of 1920-21; and those of the late 1920's may have reflected the stock market boom, which not only occupied more

of the energies of paper dealers but also led to the funding of working capital by some borrowers. In addition, many long-time borrowers have disappeared through mergers and failures. Some of the industries that have traditionally made greatest use of commercial paper—textiles, food, leather, and lumber—have not experienced rapid growth since 1920.

Since about 1932 changes in size have been closely related to other changes in the commercial paper market—shifts in identity of borrowers and lenders, and in the very character of the market. Finance companies, which were distinctly minor paper borrowers in 1920, had become a major force in the market by the mid-1930's; by 1960, they probably accounted for 90 per cent of outstanding paper, the bulk of this being sales finance paper. Similarly, nonfinancial corporations lent commercial paper funds only rarely in 1920, yet today they hold over half of all outstanding paper. Thus most of the rapid expansion in commercial paper in recent years has been a by-product of the impressive growth in consumer credit, which has furnished a strong demand for commercial paper funds, and the tapping of corporate liquidity as a source of supply of funds.

An important aspect of this shift in the sources of demand and supply has been the transformation of commercial paper into a much more attractive instrument than it was in 1920. Quality, as measured by defaults and losses, has improved greatly, but the really significant changes have been in the flexibility and liquidity of commercial paper. Finance companies, being heavy and more or less continuous borrowers throughout the year, have been willing to tailor maturities over a very wide maturity range in accordance with lenders' preferences. In addition, the large sales finance companies, which have found it advantageous to borrow without the help of dealers, have adopted the practice of "repurchasing" notes before maturity, thus compensating in some measure for the absence of a secondary market in paper. Without these modifications, it seems doubtful that nonfinancial corporations would have become such eager suppliers of funds.

USE OF COMMERCIAL PAPER BY FINANCE COMPANIES

Since finance companies are the principal borrowers of commercial paper funds, the role played by this type of debt in finance company operations was investigated in some detail. It is clear from the data that

there is no such thing as a typical finance company. In 1960, 24.9 per cent of the total funds of a sample of sales finance companies came from commercial paper. For a sample of personal loan companies, on the other hand, commercial paper was only 7.1 per cent of total funds. Business finance companies, for which there are no comparable data, probably occupied an intermediate position between these extremes. Moreover, within the categories of finance companies the extent of reliance on paper varies with firm size. Among sales finance companies commercial paper was 26.1 per cent of the total funds of six "very large" firms, while this statistic was 20.9 per cent for six "large" firms, 9.7 per cent for thirteen "medium" firms, and only 6.1 per cent for seventeen "small" firms. There is a similar relation among personal loan companies, except that the largest firms in this part of the finance industry have used paper only sparingly.

In all groups of finance companies (except small personal loan companies), both by size and by type, commercial paper was a larger fraction of total funds in 1960 than in 1948. Nevertheless, it appears that the smaller sales finance companies do not use paper today as heavily as they did in the 1930's. Along with the trend toward greater use of paper, there has been a decline in the share of total funds derived from bank loans. Among the largest sales finance companies, bank loans were less than half as large as commercial paper in 1960, and they accounted for only 11 per cent of total funds. In each of the other three groups of sales finance companies, as well as in all four groups of personal loan companies, bank debt still outranked commercial paper, but in every case bank loans became a much smaller fraction of total funds and of short-term funds during the postwar period. Banks remain important to finance companies, of course, both as lenders and as providers of "insurance," through lines of credit, against unanticipated declines in outstanding commercial paper. All but a few very large sales finance companies cover their commercial paper with open bank lines at all times.

DEMAND, SUPPLY, AND THE BUSINESS CYCLE

The demand for commercial paper funds by finance companies (and probably other borrowers as well) is determined primarily by the amount of receivables that can be acquired profitably and by the relative

cost of paper funds and bank funds. In measuring these costs, it is necessary, of course, to consider not simply the explicit interest costs but also the cost of dealer services and the costs of providing compensating balances to line-granting banks. These cost differentials explain both the postwar trend by finance companies toward increased use of commercial paper and the particularly heavy use of paper by very large sales finance companies. The differentials have tended to be much larger recently than in the early postwar years, and borrowers have therefore had a strong incentive to substitute commercial paper for bank debt. Similarly, the largest sales finance companies have been able to acquire commercial paper funds on better terms, relative to the cost of bank funds, than have other borrowers.

The supply of funds appears to be quite elastic with respect to the differential between paper yields and Treasury bill yields; i.e., given any level of bill yields, a small increase in paper yields will result in a substantial increase in the volume of funds supplied to the paper markets. Supply has increased sharply in recent years, as corporate treasurers have become familiar with the advantages of commercial paper over some other forms of liquidity, and as universities, foundations, churches, state and local governments, individuals, and others have been drawn into the market. It is because of this growing supply of funds that commercial paper has been a relatively cheap source of funds in the last several years.

Both demand and supply are cycle sensitive. The supply of funds increases during recessions, as nonfinancial corporations, banks, and other lenders acquire unwanted cash. Paper yields decline sharply on these occasions, along with bill yields, and the differential between bank rates and paper yields widens, increasing the quantity of paper funds demanded. This effect may be somewhat stronger in the dealer paper market than in the direct market because banks play a bigger role in the former than in the latter. The demand for funds behaves quite differently in the two segments of the market. Demand (though *not* quantity demanded) appears to be quite stable over the cycle in the dealer market, with the result that supply and cost changes dominate the cyclical movements in dealer paper outstanding: dealer paper tends to increase during recessions, when the cost of paper funds is low, and to decrease during expansions, when the cost is high. In the direct paper market, on the other hand, the demand for funds falls markedly during recessions—so much so that outstanding paper falls, despite its

relatively low cost at such times. In some degree, this difference in cyclical behavior of dealer and direct paper also reflects a higher elasticity of demand for paper funds in the dealer market.

Thus, recent cyclical movements in the commercial paper market can be explained readily in terms of a few plausible hypotheses about demand and supply conditions. Both demand and supply are cyclically volatile and elastic with respect to cost, but these elasticities and shifts in schedules are not identical among all borrowers—hence the difference in behavior over the business cycle.

Further Observations on the Significance of Commercial Paper

COMMERCIAL PAPER AND THE BANKS

At the outset of this study I reviewed a number of respects in which the commercial paper market is significant, even though it is a relatively small part of the American financial system. The foregoing analysis provides a good foundation for a closer look at one important aspect of commercial paper—its impact on commercial banking in recent years.

The data reviewed in Chapters 4-6 leave no room for doubt that commercial paper is an increasingly troublesome source of competition for many banks. This competition shows up on both sides of bank balance sheets.

On the asset side, finance companies, as well as other paper borrowers, have shown a distinct tendency to trim back their bank debt in favor of commercial paper funds, as long as sizable cost differentials persist. Thus one of the more important sources of demand for bank loans has been relatively sluggish in the last several years, and banks are under strong pressure to devise some method of reviving this part of their business. One approach the banks might take would be to make credit available to finance companies on more attractive terms than at present. Many finance companies are pressing for lower compensating balance requirements as a step in this direction. Eventually, however, the banks may find it advisable to create a lower-than-prime rate for finance company loans; there is precedent for such a step in the case of bank loans to securities dealers. Another approach the banks have been taking is to meet the competition of the open market at its source,

by competing more aggressively with finance companies in the markets for personal loans and sales finance services. Insofar as bank penetration of these markets has been at the expense of finance company growth, the competition of commercial paper with bank loans to finance companies has lost some of its sting.

The growth of commercial paper has influenced the liability side of bank balance sheets by limiting deposit growth—and hence earning asset growth—and by effecting a redistribution of deposits among banks. These results have come about as corporate treasurers and others have shifted from holdings of demand deposits to interest-earning forms of liquidity, such as commercial paper.

The redistributive effects of commercial paper growth are clear. The bulk of corporate cash is held on deposit in large metropolitan banks. As these balances have been drawn down and converted into commercial paper holdings, finance companies have used the funds to acquire consumer instalment contracts in all parts of the country. A portion of these deposits has ended up in banks in smaller communities. The larger banks, of course, have been greatly concerned over this deposit drain.

Less obvious is the fact that deposit growth has been adversely affected for the entire banking system as well. It is true that when demand deposits of large corporations are used to purchase commercial paper they do not go out of existence. Broadly speaking, the volume of deposits depends on Federal Reserve policy regarding the supply of bank reserves. However, it is safe to assume that corporations do not reduce their purchases of goods and services when they convert demand deposits into commercial paper holdings; on the other hand, the new owners of the former corporate cash balances can be expected to use them to finance additional spending. The net result is likely to be an increase in aggregate spending, and this implies an increase in the velocity of circulation of money.[1] To the extent that growth in aggregate spending is financed by rising velocity of money, the volume of demand deposits need not—indeed, *should* not—expand. In this manner, therefore, the growth of commercial paper in recent years, along with

[1] However, it is doubtful that commercial paper growth has made a major contribution to the rising postwar trend in velocity. I have treated this topic in *The Postwar Rise in the Velocity of Money*, Occasional Paper 78, New York, NBER, 1962.

Treasury bills and other liquid assets, has tended to limit growth of bank deposits and earning assets.

Since early 1961 large banks have attempted to counter these adverse competitive influences by offering negotiable time certificates of deposit (CD's). Thus, as indicated earlier, banks have come full circle by becoming *borrowers* in the open market, in addition to their traditional function as open-market lenders. Through sales of CD's, large banks are now offering an income-yielding money substitute that will have the dual effects of checking the deposit drain to smaller banks and of permitting total bank deposits and earning assets to grow along with the trend toward higher velocity of money. The purchase of a CD by a large corporation means a reduction in total demand deposits and a corresponding rise in time deposits. This in itself, in all probability, implies a rise in the amount of total spending per dollar of currency and demand deposits, and hence a rise in velocity. Since reserve requirements behind time deposits are less than those behind demand deposits, banks will be able to expand somewhat on the basis of a given supply of reserves. Furthermore, as the economy grows, the Federal Reserve authorities will have to augment bank reserves to permit an adequate expansion of total liquidity in the economy.

It is clear that the CD can become a powerful tool for countering the effects of open-market competition. Their rapid growth since 1961 certainly testifies to this.[2] CD's may be expected to grow even more rapidly if the Federal Reserve suspends Regulation Q, which governs maximum yields that member banks may offer on time and savings deposits.[3] Yet even if Regulation Q is retained in its present form, the CD will continue to play a useful role. For it is precisely in easy-money periods that banks feel the competition of the open market. On occasions when open market yields rise to levels that make CD's unattractive to investors, potential commercial paper borrowers will find the open market less attractive and will tend to use their bank lines more fully.

[2] A Federal Reserve survey of 410 member banks found that CD's outstanding at these banks amounted to $6.2 billion as of December 5, 1962. See "Negotiable Time Certificates of Deposit," *Federal Reserve Bulletin*, April 1963.

[3] Since January 1, 1962, the ceilings have been 3.5 per cent on six-month deposits and 4 per cent on deposits of 360 days or more.

THE OUTLOOK FOR COMMERCIAL PAPER

The future of commercial paper will depend on a number of factors, operating on both the demand and supply of funds, that cannot be predicted with assurance. Of the two sets of factors, developments on the supply side seem to be less certain and potentially more important than those influencing demand.

The principal determinant of the supply of commercial paper funds will be the volume of competing short-term debt instruments. The most obvious competitor to commercial paper is the marketable short-term debt of the federal government, which at the end of 1962 was nearly $100 billion.[4] This type of debt has grown tremendously in recent years —by over $40 billion since 1955. In 1961 alone it grew by over $10 billion. Recent growth in commercial paper has also been impressive, but one wonders what it might have been if short-term federal debt had remained constant. Even more intriguing are the possible consequences of a major funding of the federal debt. The average maturity of the federal debt has tended to decline in the postwar period, and this trend has been deplored by most commentators. Eventually, there will probably be a program to lengthen the maturity of the federal debt, in which case commercial paper may become a considerably more important part of the American financial system.

But short-term government securities are not the only competitor of commercial paper. Several recent developments illustrate the strength of competition in the money market. One is the issuance of short-term notes by the Federal National Mortgage Association, beginning in April 1960, and by the Savings Bank Trust Co., beginning in October 1962. The "Fanny Mae" notes are identical to finance company commercial paper. Maturities may be designated by lenders within the range of 30 to 270 days; the notes are unsecured and payable to bearer; they are issued continuously and in denominations of $5,000 to $1,000,000; and they are sold exclusively by a commercial paper dealer, A. G. Becker & Company.[5] The amount of these notes outstanding on June 30, 1961 was $358.2 million.[6] While these "Fanny Mae" notes are

[4] U.S. government marketable securities maturing within one year, all holders, *Federal Reserve Bulletin.*

[5] A. G. Becker & Co., brochure on *F.N.M.A. Short Term Discount Notes.*

[6] *Report and Financial Statement of the Secondary Market Operations,* Federal National Mortgage Association, June 30, 1961, p. 6. Note that the Federal Reserve data on commercial paper outstanding do not include "Fanny Mae" notes.

not likely to grow much beyond their present size, it would not be surprising if other federal agencies began similar borrowing programs. The Savings Bank Trust Company notes differ from commercial paper in that they are secured, by real estate mortgages. These notes are sold through a paper dealer, Salomon Brothers & Hutzler. While the amount outstanding is not likely to become large, they nevertheless indicate the willingness of money market participants to explore new paths.

A much more important competitor, as indicated above, is the negotiable time certificate of deposit. CD's may well provide formidable competition to commercial paper in years to come, especially if Regulation Q is further liberalized or suspended altogether.

Aside from the possible impact of competitive types of debt, there is the further question of how much the money market as a whole can be expected to grow in coming decades. Much of the recent growth in the money market has come from nonfinancial corporations, and one may wonder whether this source can provide any substantial further growth, other than the slow expansion that should accompany a growing economy. Nonfinancial corporations have reduced their cash balances, relative to spending, to such an extent in the postwar period that further large reductions will be quite difficult. If this is so, then it is all the more clear that the future supply of commercial paper funds will depend largely on the degree of competition from the federal government and commercial banks.

Finally, we must consider the probable trend in the demand for commercial paper funds. Much will depend on the rate of growth of consumer credit, and of the finance-company share of the total. There are indications that consumer credit has finally attained a mature stage of development in the last few years. The ratio of repayments to disposable personal income has leveled off since the end of 1957 at about 13 per cent. Furthermore, the growth rate in outstanding consumer credit was less during the 1958-60 business cycle expansion than during the preceding expansion, and it has been even less during the expansion that began in February 1961. If this judgment is correct, growth in the quantity of commercial paper funds demanded will depend largely on the relative importance of finance companies in consumer credit markets and on the degree to which they can continue to substitute paper funds for bank credit. Competition from banks and credit unions has been increasingly intense in recent years, and it seems unlikely that finance companies will be able to do more than maintain their present share of outstanding consumer credit. Moreover, the large sales finance com-

panies have already gone far along the path of substitution, although considerable scope for substitution remains among the smaller sales finance companies and among personal loan and business finance companies of all sizes. However, the greatest potential source of demand for commercial paper funds is among nonfinancial borrowers. If the sizable differentials between bank interest rates and the cost of paper funds continue, it is possible that these borrowers, along with finance companies, will make greater use of commercial paper as a source of funds in the future.