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ECONOMIC REVIEW

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ECONOMIC ROUNDUP

by

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Talk delivered by Mr. Hickman at a Joint Meeting of the Boards of Directors of the Federal Reserve Bank of Cleveland and the Cincinnati and Pittsburgh branches on May 13, 1970. The views expressed are personal and do not necessarily reflect those of the Federal Reserve System.

My assignment tonight is to summarize recent economic and financial developments and to indicate some of the issues that must be resolved in the formulation of an appropriate monetary policy.

I start out with two basic assumptions. First, restrictive monetary and fiscal policies that were pursued during 1969 were successful in slowing down an overheated economy, as evidenced by successive declines in real Gross National Product in the final quarter of 1969 and in the first quarter of 1970. Second, despite easing of demand pressures on physical and labor resources, inflation has not yet been brought under control.

Fragmentary evidence that has become available in recent weeks suggests that resumption of growth in real economic activity may be quite near at hand, or may, in fact, already have occurred as the economy snaps back from the trucking strikes in the Chicago and Cleveland areas. Despite last quarter's decline in real GNP, economic activity at the close of the three-month period was already somewhat stronger than at the beginning. After declining for seven months, industrial production rose in March, led by gains in output of consumer goods. Auto sales have picked up from the trough reached early this year, and new car inventories have been reduced sufficiently to permit a modest rise in automotive production. After declining since last spring, retail sales of other consumer durables also turned up in February and March. These developments suggest that inventory-sales adjustments in major consumer durable goods industries may be over. In addition, housing starts

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THE EURODOLLAR MARKET

PART III: SOME IMPLICATIONS

The Eurodollar market is a money market that is available to a broad range of investors. It is widely used by banks, notably by those in the United States, as a means of balancing liquidity and reserve positions and servicing customer loan demands. Although the Eurodollar market is basically a short-term market, borrowers have tapped its resources for periods of up to five years. The market also has ramifications for the balance of payments and monetary and credit policies of the major developed countries.

Nevertheless, the Eurodollar market is not fully understood. Certainly, one reason why the market seems hard to conceptualize and to have so many diverse aspects is that it is both a deposit market and a loan market. However, the Eurodollar market has assumed importance beyond the geographic and institutional boundaries of a deposit and loan market. Because of this, as described in the two preceding articles, it is very difficult to select a focal point for discussion.¹ The preceding articles focused on certain segments of the Eurodollar market in an effort to isolate the market's structure and interest rate patterns. This isolation was achieved at the expense of spelling out the interrelationships between the Eurodollar market and the world economy. Consequently, this article considers some of the Eurodollar market's implications that are outgrowths of its interaction with various national economies.

¹See "The Eurodollar Market: The Anatomy of A Deposit and Loan Market, Part I: Market Structure," *Economic Review*, Federal Reserve Bank of Cleveland, March 1970 and "The Eurodollar Market, Part II: Interest Rate Relationships," *Economic Review*, Federal Reserve Bank of Cleveland, April 1970.

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MONETARY AND CREDIT POLICY

The policymaking organizations of the countries most involved in the Eurodollar market do not, as a general rule, allow the market to determine domestic interest rates and capital flows. However, the impact of Eurodollar market forces in conjunction with domestic policy decisions can affect domestic interest rates and credit flows in individual nations.

The previous two articles showed that the Eurodollar market serves as a link between the national money markets of many countries. It was also suggested that the growing importance of the Eurodollar market has served to strengthen this link by increasing the sensitivity of domestic interest rates to developments in other markets through additional arbitrage opportunities. Obviously, since interest rate movements are an important factor in designing and evaluating monetary policy, the Eurodollar market has an impact on monetary policy. As much as the market's impact has been felt in the United States, its influence on the monetary policies of other industrialized countries has generally been greater.

The Eurodollar market's impact can also be discerned on credit flows; consequently, this discussion turns to an examination of the interaction between Eurodollar market flows and the availability of credit in the countries that use the market.

The United States Experience.² The Eurodollar market's impact on the credit flows and availability of credit in the United States can be seen in the distribution of total reserves available to the commercial banking system, the commercial bank-

ing system's ability to generate or need to contract credit, and, more generally, in the country's overall (bank and nonbank) credit conditions. The latter aspects, although of considerable interest and importance, are beyond the scope of this article, which can only deal with the distribution of reserves.

Most Eurodollar transactions have no effect on the total reserves available to the commercial banking system in the United States, or, consequently, on bank credit expansion. Two forms of Euromarket activity do, however, have implications for the distribution of total bank reserves between excess and required reserves: (1) the depositing of United States funds in the Eurodollar market; and (2) Eurodollar borrowing by United States commercial banks. If dollar funds are transferred to the Eurodollar market from the United States, the impact on the reserve position of a commercial bank is dependent on the source of the funds being transferred. In the process of transferring funds to the Eurodollar market a demand deposit is generated, at least temporarily; if the funds were previously held in the form of a time deposit, then bank reserves are absorbed. That is, required reserves would increase (and excess reserves decrease) because reserve requirements are higher for demand deposits than for time deposits. If the funds were previously held in the form of a demand deposit, then there would be no change in either required or excess reserves. The shift of reserves from excess to required could, of course, lead to monetary contraction unless banks' preferences for excess reserves also decreased or the monetary authorities increased total reserves. In practice, funds flow so quickly in the Eurodollar market that bank reserve effects dependent upon the source of funds may be washed out.

²This section parallels that presented by Robert E. Knight, "An Alternative Approach To Liquidity," *Monthly Review*, Federal Reserve Bank of Kansas City, February 1970, pp. 16-19.

United States bank borrowing of Eurodollars before the implementation of the Federal Reserve regulations establishing marginal reserve requirements on such borrowings generally released reserves. The net effect depended on the source of funds being replaced by the Eurodollar borrowings. That is, when borrowing Eurodollars, if a United States bank substituted a nondeposit liability for either a time or a demand deposit, reserves were released. Since both time and demand deposits are subject to reserve requirements and nondeposit liabilities were not, required reserves fell and excess reserves increased. If a bank borrowed Eurofunds not to replace funds but to add to total funds, there would have been no reserve effects. Since the imposition of the marginal reserve requirements on Eurodollar borrowing by member banks, borrowings above a given base amount in order to replace a demand deposit would still release reserves but to a smaller extent. The reserve requirement on demand deposits for large city banks approaches 17 percent, while the marginal Eurodollar requirement is 10 percent. On the other hand, Eurodollar borrowing above the base amount to replace a time deposit will now absorb reserves. (The current required reserve ratio against savings deposits and time deposits under \$5 million is 3 percent; other time deposits have a 6 percent reserve requirement.)

The Experience of Other Eurodollar Market Participants.³ Because United States dollars are counted among foreign countries' international reserves, Eurodollar flows have direct implications for their monetary and credit policies. Three major policy areas are affected by these implications: (1)

interest rate policy; (2) credit policy; and (3) attempts to deal with speculative flows.

The Eurodollar market has served to dull the impact of interest rate (and the associated discount rate) policies of developed countries other than the United States because of the arbitrage opportunities that the market provides. For example, if one country wanted to pursue a low interest rate policy, that country (subject to its exchange and investment controls) would tend to export capital. If the low interest rate policy were being pursued to encourage domestic investment, however, the exportation of capital would serve to defeat the purpose of the policy. Prior to the Eurodollar market, domestic considerations often played a more dominant role than did international considerations in a country's determination of its interest rate policy. While the situation has not been completely reversed, few industrialized countries can establish an interest rate policy today without explicitly considering the international consequences.

In terms of credit policy, an inflow of Eurodollars, whether converted into the domestic currency or not, increases the liquidity of any foreign banking system. For one thing, if the dollars are not converted, the banks can increase their dollar loans. Second, dollars that are not lent or absorbed into working balances will be sold for domestic currency. To stabilize the domestic currency/dollar exchange rate, the central bank's only alternative may be to purchase the redundant dollars. The perhaps involuntary purchase of dollars not only increases the level of international reserves but also concurrently increases the domestic currency liquidity of the banking system. Such an increase in liquidity can be offset by changes in central bank policies on rediscounts and advances and by changes in reserve requirements. However,

³This discussion owes a great deal to Sylvain Plasschaert, "Problems Euromarkets Cause," *Euromoney*, February 1970, pp. 33-34.

the increased liquidity, or the results of the policy measures to offset the increase, may work at odds with intended monetary and credit policy. Since Eurodollar flows can cause shifts in domestic liquidity, irrespective of interest rate developments, central banks must account for such contingencies when establishing their short-term credit policy posture. Foreign central banks can exercise control over Eurodollar flows in several ways, including quantitative controls limiting a banking system's net foreign position and encouraging the exportation of dollar funds by commercial banks to prevent the buildup of unwanted liquidity.⁴

Finally, speculative flows engendered by foreign exchange crises appear to have been aided and abetted by the Eurodollar market. For one thing, the liquidation of deposits held outside the issuing country due to parity uncertainties can become an additional source of pressure on a weak currency. A second possibility is that the fear of exchange controls might also result in the withdrawal of foreign currency denominated accounts. The more developed the Eurocurrency market, the more easily such funds could be moved and put to work. All these flows can have an impact on the international reserves of individual foreign countries and therefore on a country's credit flows. To the extent that the Eurocurrency markets have facilitated such flows of funds, they must be watched closely by those charged with the implementation and evaluation of monetary policy.

BALANCE OF PAYMENTS

The impact of the Eurodollar market on balances of payments, especially in the United

⁴For a more thorough discussion of central bank control over the Eurodollar market, see "Part I: Market Structure," *op. cit.*, pp. 9-11.

States, has also received a good deal of attention, but seldom has the balance of payments question been discussed in the context of the Eurodollar market as a whole. Therefore, this discussion relies heavily on the organizational structure of the Eurodollar market presented in the first of this series of articles and reproduced in the figure.⁵

Capital flows generated by the Eurodollar market can affect a country's balance of payments in two major ways: (1) in a statistical sense; and (2) in an economic sense. The statistical impact centers on the accounting conventions used by each country. As an example, the Eurodollar market's effect on the United States balance of payments position is examined in detail, followed by a brief discussion of the economic implications.

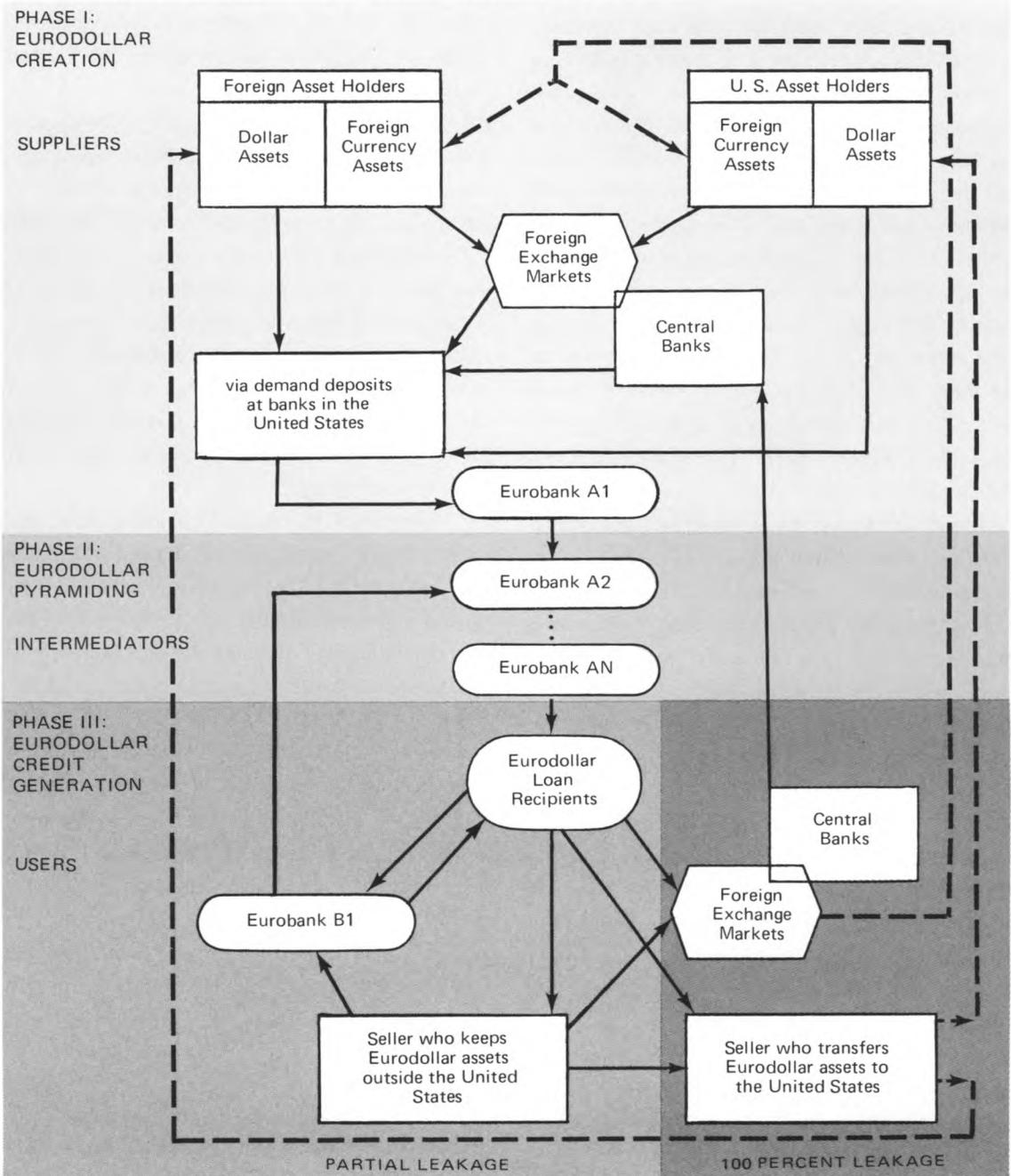
The Statistical Impact. Much of the recent discussion concerning the impact of the Eurodollar market on the United States balance of payments has focused very narrowly on United States bank borrowing from their foreign branches. What has been generally overlooked is that such borrowing is only one aspect of the interrelationship between the Eurodollar market and the United States balance of payments statistics, as reflected in both the official settlements balance and the liquidity balance.⁶

The official settlements balance is measured by summing the changes in the United States gold stock, holdings of convertible foreign exchange, the nation's creditor position at the International Monetary Fund, and liabilities to foreign official institutions (primarily central banks). The liquidity balance equals the change in United States

⁵*Ibid.*, pp. 11-16.

⁶For an alternative approach, see Wolfgang Schafer, "Misconceptions: The Eurodollar Market and the U. S. Balance of Payments," *Euromoney*, March 1970, pp. 42-43.

FLOW DIAGRAM OF THE EURODOLLAR MARKET



Source of data: Federal Reserve Bank of Cleveland

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reserve assets (the first three financing items by which the official settlements balance is measured) plus the change in liquid liabilities to all foreigners, both official and private. The essential difference between the two measures lies in the treatment of nonofficially owned liquid liabilities. The measures are based on two somewhat arbitrary propositions: (1) that short-term liabilities held by central banks represent immediate claims on United States reserve assets, while similar liabilities held by the foreign private sector do not (hence their exclusion from the official settlements balance); and (2) that short-term or liquid liabilities are defined to be those with original maturities of less than one year. These two limitations must be kept in mind to understand why Eurodollar flows affect one balance and not the other.

Phase I of the figure describes Eurodollar creation; flows of this type can affect the United States balance of payments as measured by both balances. United States dollar asset owners who transfer dollars to the Eurodollar market cause an outflow measured by the liquidity balance. (An outflow of funds from the United States either decreases the surplus or increases the deficit in either balance.) For example, the transfer of a demand deposit in a United States bank to a Eurobank creates a liability to a foreigner.⁷ On the other hand, foreign-owned dollar assets that are transferred to the Eurodollar market only count as an outflow in the United States accounts if their transfer to foreign ownership was not previously registered as an outflow on the liquidity basis.

United States and other foreign currency asset owners can exchange their assets for dollars through the foreign exchange market. If dollar

funds are placed in the Eurodollar market by way of the foreign exchange market, the effect on the United States balance of payments depends on the source of the dollars purchased in the foreign exchange market. That is, as more foreign currency assets are exchanged for dollars, the price of dollars will increase (the price of a foreign currency will fall). To mitigate the rise in the price of dollars and to abide by the rules of the International Monetary Fund, the foreign central bank involved may have to sell dollars or claims on dollars. The decrease in the officially held dollar claims reduces the United States balance of payments deficit, or increases the surplus on the official settlements basis. This result holds no matter who the original owners of the foreign currency assets were.⁸

This type of transaction was reflected in the recent United States balance of payments statistics. The substantial balance of payments surpluses on the official settlements basis registered in the last three quarters of 1968 and the first half of 1969 were attributed, in part, to heavy Eurodollar borrowing by United States banks from their foreign branches in response to tightening credit conditions in this country. To illustrate, from late 1968, when Eurodollar interest rates rose sharply (fueled by the demands of United States banks), asset holders were induced to sell their foreign currency assets and to convert the proceeds into dollars in the foreign exchange markets (see the top panel of the figure). The dollars were then invested in the Eurodollar market. Central banks

⁷For balance of payments purposes, branches of United States banks domiciled in foreign countries are considered foreign institutions.

⁸The question of whether the original purchase of a foreign currency asset by a United States asset holder resulted in a flow detrimental or beneficial to the United States balance of payments is immaterial to the discussion. It is completely independent of the existence of the Eurodollar market.

in many foreign countries met the increased demand for dollars in the foreign exchange markets by reducing their holdings of United States dollar liabilities. That is, a redistribution of dollar liabilities from official to private foreigners (the primary cause of the official settlements surplus) resulted from the demands placed on the Eurodollar market by United States banks.

Thus, the surpluses on the official settlements balance during this period were a result of United States bank demand only so far as the dollars used in the purchase of the foreign currency assets came from the coffers of central banks. The favorable balance of payments impact would have developed, however, independently of the source of demand. That is, United States bank borrowings through their own foreign branches do not affect the balance of payments, *per se*. If the demand for dollars in the foreign exchange market had been met solely by private foreigners, there would not have been any favorable effect on the United States official settlements balance.

In the example above, central banks reacted indirectly to an excess demand for United States dollars fostered by the existence of the Eurodollar market. The effects of direct central bank participation in the Eurodollar market, however, can be considered in an analogous fashion. With the direct placement of a Eurodollar deposit by a central bank, the ownership of a liability is transferred from a foreign official owner to a foreign private owner (generally a commercial bank), thereby benefiting the United States official settlements balance. If the central bank were entering the market in order to convert its excess dollar balances into earning assets, the net result would be beneficial to the United States official settlements balance. If the central bank were intervening to mitigate upward pressure on Eurodollar

market rates or for other policy oriented reasons, it is more plausible to assume that the transaction would be reversed fairly quickly, leaving the United States balance of payments unaffected.⁹ Of course, in both circumstances, central bank participation induces interest rate changes that can lead to further shifts of funds and an additional impact on the United States balance of payments.

Eurodollar pyramiding, the second phase in the figure, has no impact on either measure of the United States balance of payments. Pyramiding involves the transfer of dollar liabilities among Eurobanks, all of whom are classified as foreigners; pyramiding merely transfers ownership of liabilities among foreigners, thereby having no effect on the United States liquidity balance. By definition, central banks do not take part in the pyramiding process; therefore, the official settlements balance also cannot be affected.

Eurodollar credit generation, or Phase III, does not, in and of itself, affect the United States balance of payments. The loan proceeds that stay in the Eurodollar market do not have a United States impact, just as the proceeds that are transferred among private foreigners do not have an impact. Only loan proceeds that find their way into the foreign exchange market or are returned to the United States influence the United States balance of payments statistics. If the dollars transferred to the United States are owned by a United States resident, then the liquidity balance is benefited; the ownership of a short-term liability has been transferred from a foreigner to a United States resident. If the dollars continue to be

⁹See Fred H. Klopstock, "The Eurodollar Market: Some Unresolved Issues," *Essays in International Finance*, No. 65, March 1968 (Princeton, New Jersey: Princeton University), p. 16.

owned by a foreigner, there is no change in the liquidity balance.

Eurodollar loan proceeds transferred into foreign currency assets can have an impact on the United States official settlements balance to the extent that such conversions result in the transfer of ownership of short-term dollar liabilities from private foreigners to central banks. In these transactions, the foreign central banks may have to absorb dollars as they sell their national currencies. Any such accumulation of dollars by central banks occurs at the expense of the United States official settlements balance.

This discussion puts the accounting aspects of the United States balance of payments flows associated with the Eurodollar market into perspective. The relatively short history of the Eurodollar market has been punctuated by two important examples of these balance of payments flows, both of which caused widespread comment and policy changes in the United States and Europe. The first example occurred when the United States balance of payments was adversely affected by large quantities of dollars being transferred into the Eurocurrency market to take advantage of the higher yields offered abroad, particularly during 1964 and during the first three quarters of 1969. In 1964, the liquidity deficit amounted to \$2.8 billion, with a large outflow recorded in the fourth quarter. The balance of payments programs initiated in 1965 virtually halted such transfers of domestic funds. During the first three quarters of 1969, however, there is evidence suggesting that outflows of funds to the Eurodollar market became large, especially on the part of individuals and corporations, resulting in a major deterioration in the United States liquidity balance.¹⁰

¹⁰See "Eurodollars: A Changing Market," *Federal Reserve Bulletin*, October 1969, pp. 774-775.

Specifically, after showing a small surplus in 1968, the liquidity balance was in deficit by \$7.1 billion in 1969.

The second example of the United States balance of payments accounts being dominated by Eurodollar flows occurred during most of 1968 and the first half of 1969, when the official settlements balance moved into substantial surplus because of a shift in dollar liabilities of the United States from official foreign ownership to private foreign ownership.¹¹ Over a five quarter period—from the second quarter of 1968 to the second quarter of 1969—the official settlements balance was in surplus by an average of \$0.9 billion a quarter at a seasonally adjusted quarterly rate. (In contrast, over the same period the liquidity balance was in deficit by an average of \$1.0 billion a quarter.

Some of the ramifications of the Eurodollar market on the balance of payments of the United States have been shown in large part to be a function of the international accounting techniques used by the United States. An understanding of the techniques used by other countries would be necessary to discuss, meaningfully, the market's impact on their balances of payments. In general, however, movements in the United States balance of payments are matched by opposite, but not necessarily equal, movements in other countries' international accounts. This is especially true because most foreign countries count officially held dollars as reserve assets.

The Economic Impact. The economic implications of the Eurodollar market on any country's balance of payments are more complex than the immediate statistical impact and can only be

¹¹See also, Raymond F. Mikesell, "The Eurodollar Market and the U. S. International Accounts," *Euromoney*, January 1970, pp. 44-45.

hinted at here. The accounting results may, in fact, cloud the long-run trend of a country's role in the world economy. The economic implications depend importantly on what the alternatives would have been in the absence of a Eurodollar market. It could be hypothesized that without the Eurodollar market, there would be fewer foreign alternative uses of dollars. For United States residents, the lack of a well-developed foreign market in dollars might have kept more funds at home in recent years. Private foreigners also would have been less likely to transfer foreign currency assets into dollars and more likely to have sold dollars to their central bank, thereby potentially worsening the deficit in the United States balance of payments. Furthermore, with a greater buildup of dollars and faced with fewer alternative uses, the central banks would undoubtedly have increased their demands on the United States gold stock.

Similarly, there would have been no substantial alternative source of dollars other than the United States money market. To the extent that United States residents would not have been able to borrow funds in the Eurodollar market, this positive increment to the liquidity balance would then have been missing. Private foreigners would have been forced either to raise dollar funds in New York, thus draining funds from this country and increasing the United States liquidity deficit, or to borrow funds in their domestic currencies to be used to purchase dollars. Obviously, each of these alternatives also has connotations for the size of working balances kept in dollars and interest rate relationships.

A complete analysis would have to attempt to judge the economic impact of various alternatives on the United States money market as well as on those of the rest of the developed countries.

Questions concerning whether or not the availability of credit would have expanded to the extent that it did over the decade of the 1960's would have to be postulated and answered, but such questions are beyond the scope of this article. Even limiting the discussion to the balance of payments, these missing alternatives are very hard to measure. Consequently, the overall economic impact of the Eurodollar market on the United States balance of payments is hard to judge.

The Eurodollar market has increased the supply of dollars as well as the supply of dollar credit available both to United States residents and to foreigners. This has been done by facilitating intermediation, primarily by attracting dollar-denominated balances held in alternative investment forms by foreigners into the market. There is also evidence that the Eurodollar market has increased the world demand for dollars as a part of the intermediation process. Perhaps, therefore, the true economic effects of the Eurodollar market on the United States balance of payments could be judged by whether the increased supply of dollars exceeds the increased demand for dollars or not, but not enough evidence has been accumulated to answer this question empirically.¹²

As a final point in the discussion of the United States balance of payments, there is a popularly held view that the Eurodollar market could not have grown as fast as it did over the 1966-1969 period without the United States recording large balance of payments deficits. An opposing view states that the growth of the market has been purely a function of its credit generation

¹²For one opinion, see Milton Friedman, "The Eurodollar Market: Some First Principles," *The Morgan Guaranty Survey*, October 1969, p. 4 ff.

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abilities.¹³ The fact that Eurodollar market interest rates have been high enough to attract large amounts of short-term capital out of other investments also explains the growth of the market. As the balance of payments discussion in association with the figure indicated, Eurodollars can be created both in ways that affect the United States balance of payments and in ways that do not. Care must also be exercised as to which balance of payments measure is being studied. It is true that some Eurodollars are generated as a byproduct of the market's implicit fractional reserve system, but the reserve multiplier is so low that the entire growth of the market cannot be attributed to this source.¹⁴

A corollary to the idea that the growth of the Eurodollar market is a function of United States balance of payments deficits is the theory that the Eurodollar market could not survive a United States balance of payments surplus. This is simply not true. Given that the dollar is the world's major vehicle currency as well as the major intervention currency, to assume that there will not always be some foreign demand for dollars also assumes a major disruption of the present international financial system. This is not to say that the growth rate of the Eurodollar market would not slacken (or even become negative) if the United States were to experience a balance of payments surplus for several years. However, the viability of the Eurodollar market is much more dependent on the absence of continued enormous United States

balance of payments deficits. Such continued deficits eat away at world confidence in the dollar, and confidence is the cornerstone of the dollar's present position. At the present time, confidence in the United States dollar is relatively high; therefore, Eurodollar assets and liabilities are in demand. Any lessening in confidence in the dollar has generally manifested itself in speculation in gold or in the increase in the relative popularity of other vehicle assets (e.g., German mark denominated issues in the Eurobond market in 1969). Any major diminution in confidence in the dollar would threaten its position as the vehicle and intervention currency. Long before that, however, the Eurodollar market would have begun to weaken or at least experience some major upheavals.

SEIGNIORAGE

If the existence of the Eurodollar market induces more people to hold dollars than they would in the absence of that market, then certain advantages accrue to the United States. Such advantages have been labeled gains from seigniorage. The concept has been broadened to include the advantages accruing to the United States by having the dollar more widely held on both an official and a private basis as a result of the growth and success of the Eurodollar market.¹⁵

The gains from seigniorage (and the development of the Eurodollar market) are derived from the facts that (1) transactions costs in dollars are

¹³*Ibid.* For a rebuttal see Fred H. Klopstock, "Money Creation in the Euro-Dollar Market—A Note on Professor Friedman's Views," *Monthly Review*, Federal Reserve Bank of New York, January 1970, pp. 12-15.

¹⁴See Klopstock, "The Eurodollar Market: Some Unresolved Issues," *op. cit.*, p. 8.

¹⁵See Alexander K. Swoboda, "The Euro-Dollar Market: An Interpretation," *Essays in International Finance*, No. 64 (Princeton, New Jersey: Princeton University, February 1968), pp. 11-13, and Robert A. Mundell and Alexander Swoboda, editors, *Monetary Problems of the International Economy* (Chicago: The University of Chicago Press, 1968), pp. 269-329.

generally lower than such costs associated with other currencies; (2) a higher rate of return can generally be earned on dollar working balances, given the lack of restrictions on importing and exporting dollars; (3) dollar asset prices are the product of markets with greater depth, breadth, and resiliency; and (4) dollar assets are more readily convertible. Furthermore, because of the widespread use and acceptability of the United States dollar, residents of the United States can minimize their holdings of foreign currencies and thus reduce the costs associated with holding working balances in foreign currencies.¹⁶ A further gain from seigniorage occurs because most Eurobanks keep a limited amount of non-interest bearing funds on deposit with United States banks, giving the United States banking system the use of these funds. Of course, all of the above advantages also accrue to Germany because of the existence of a Euromark market, and to the United Kingdom because of the Eurosterling market and so on, only on a proportionately smaller scale.

Before the advent of the Eurodollar market, the United States reaped some gains from seigniorage because of the dollar's position as the major vehicle and intervention currency. Although the Eurodollar market may have served to increase the volume of the seigniorage accruing to the United States dollar, the market also has had a profound impact on the distribution of these gains. Because of the Eurodollar market's function as a multi-national intermediary and its stimulus to greater national and international competition in both deposit and loan markets, the dollar gains from seigniorage are no longer accruing solely to the

United States, but are being distributed among all the users of the market. For example, Eurodollar deposit rates are generally higher than those in competing markets and Eurodollar loan rates are generally lower than those in competing markets.

THE GOLD MARKET

The relationship between the free gold market and the Eurodollar market should be mentioned. In some respects, the two markets are the anti-thesis of each other; that is, speculation about the possibility of an increase in the price of gold can often be equated with speculation about the devaluation of the United States dollar or any other currency that is tied to the dollar. Consequently, as the price of gold increases, people may be less willing to hold dollars; as the gold market strengthens, the Eurodollar market may weaken. What has actually occurred thus far, however, is that when the free market gold price increased, often in sympathy with or as a byproduct of unrest in the foreign currency markets, the Eurodollar market flourished independently. For example, in the winter of 1968 and early in the spring of 1969, gold speculators rushed to borrow dollars which they immediately used to buy gold. (The speculators would profit by any increase in the price of gold since the absolute amount of their dollar liabilities would remain the same.) At the same time, United States bank demand for Eurodollars increased sharply.

As gold speculators seek to borrow dollars, they increase the demand at a time when the supply may be contracting because of a growing unwillingness to hold assets denominated in United States dollars. Interest rates in the Eurodollar market are, therefore, forced up. As rates climb, the opportunity costs of holding gold, an asset on which no interest is paid, increase. Therefore, as

¹⁶See Swoboda, *op. cit.*, pp. 5-11, and "The Eurodollar Market: The Anatomy of A Deposit and Loan Market, Part I: Market Structure," *op. cit.*, pp. 4-5.

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gold speculation increases, equilibrating forces are set in motion in the Eurodollar market. For example, ignoring transactions, insurance, and storage costs, and assuming Eurodollar rates are at 10 percent per annum, a gold speculator would be better off investing in Eurodollars unless the price of gold appreciated by more than 10 percent. If he had purchased gold at \$35.00 an ounce, he would have to expect the price to be more than \$38.50 an ounce in a year's time and at \$42.35 by the end of the second year. During the early days of the two-tier gold market such price increases for gold seemed possible, but since then, such price increases appear to be unlikely. The pull of high Eurodollar rates has been one contributing factor, and more than likely much of the Eurodollar borrowing associated with gold speculation in 1968 and early in 1969 has been repaid.

The interaction between the gold and Euro-

dollar markets, however, reinforces the warning against perpetual United States balance of payments deficits. Loss of confidence in the dollar is generally reflected in increased speculation in gold. If the loss of confidence is great enough, the pull of higher dollar interest rates may become ineffective. An increase in Eurodollar rates in the face of a sharply contracting Eurodollar market would soon result in a disorderly market and might eventually lead to a complete breakdown in the market mechanism. This is not a very likely occurrence, but it is one that should be avoided if at all possible. Because of the complexities and the interrelationships of the Eurodollar market, and because of the market's value and usefulness, its continued health and viability are important. In turn, the most important prescription for this achievement is the maintenance of confidence in the United States dollar.



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COMMERCIAL PAPER, 1960–1969

The staggering growth in the use of commercial paper was one of the most notable developments in short-term financing during the 1960's. The volume of outstanding commercial paper increased by \$28 billion between 1960 and 1969, compared with an increase of \$2.5 billion in the 1950's. Commercial paper technically includes all short-term evidences of indebtedness of business and banking firms; that is, promissory notes of banking and business firms, commercial drafts, domestic acceptances, and open market commercial paper. However, in the money market, commercial paper is generally defined as unsecured short-term notes issued in bearer form by large, well-known businesses.

This type of money market paper has several unique and identifying characteristics. For example, maturities on commercial paper range from a few days to nine months (270 days). Notes with a maturity of more than 270 days are uncommon because such issues must be registered with the Securities and Exchange Commission.¹ In general, maturity dates on individual issues reflect the needs of either the buyer or the issuer, as well as market conditions.

¹*Securities Act of 1933, United States Code* 1964 Edition. Vol. III, Section 77c. (This section of the law, however, does not apply to commercial paper with a maturity in excess of 270 days that is negotiated as a private placement.)

Commercial paper is commonly issued in multiples of \$5,000, although million-dollar notes are not uncommon. The exact denomination in each offering is always arranged to suit the convenience of buyers.

There are basically two types of commercial paper—direct paper and dealer paper, with direct paper accounting for about 70 percent of total outstandings. Directly placed paper is sometimes called "finance company paper" because the issuing companies are finance companies that sell their notes to investors without using the services of a dealer. The smaller segment of the commercial paper market is composed of dealers who purchase notes outright from issuers. Commercial paper dealers then generally place their paper with investors and large banks that act as agents for investors. Issuers using the services of dealers typically have relatively small amounts of commercial paper outstanding at any one time and are not continuously in the market.

There is no active trading in a secondary market for commercial paper as there is for many other money market instruments, although some dealers and finance companies will occasionally redeem the notes before maturity. Consequently, investors in commercial paper generally select a note with a maturity that closely parallels their investment needs. Commercial paper notes do not carry a stipulated rate of interest. Instead, the notes are

sold at a discount, with the difference between the purchase and redemption prices being the interest paid.

DEVELOPMENT OF THE COMMERCIAL PAPER MARKET

Commercial paper is the oldest of the short-term money market instruments and is a distinct feature of the financial system of the United States. Canada is the only other country that has a market for commercial paper; however, the Canadian market is comparatively small. Although the date of the first usage of commercial paper is unknown, brokers handling promissory notes and trade bills of business firms (a type of commercial paper) were operating in New York and Boston as early as 1790.² By 1830, the market had become well established, and yields on open-market dealer commercial paper were published in the "Financial Register of the United States."

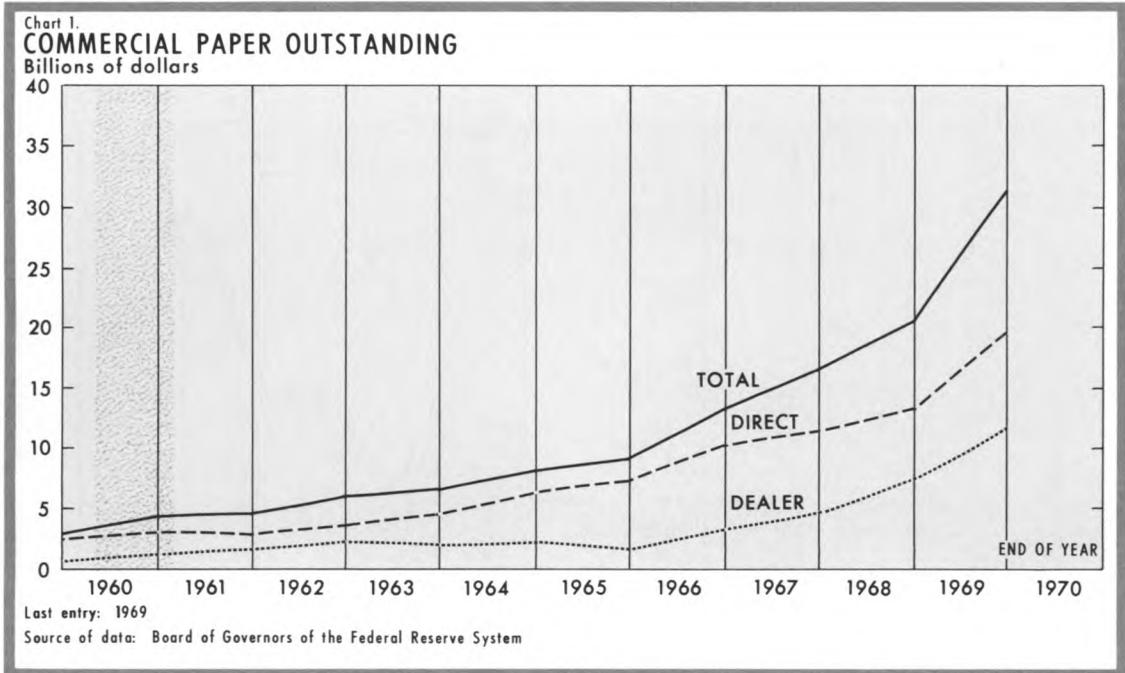
Two events in the early 1900's had a marked effect on the use of commercial paper. During the money panic of 1909, when high grade corporate bonds were being sold at a heavy loss, the bulk of commercial paper notes were repaid at maturity. In addition, the Federal Reserve Act of 1914 provided that commercial paper was an acceptable secondary reserve instrument for member banks and was "eligible" to be discounted at the central bank. Consequently, by 1920, more than 4,000 firms were issuing commercial paper, and the outstanding volume reached \$1.3 billion. During the 1920's and 1930's, the volume of outstanding commercial paper declined as business firms acquired permanent working capital by issuing securities in the capital markets. The depression

during the 1930's accentuated the decline in outstanding commercial paper; in fact, by 1933, the outstanding volume dropped to about \$100 million.³ Because of the abundance of bank reserves during this period, rates on business loans were extremely low. (In 1934, the prime rate was 1.75 percent.) Consequently, there was little incentive to issue open market paper, and businesses instead borrowed from banks.

During this lull in the market, consumer finance companies began to issue commercial paper. Although General Motors Acceptance Corporation had issued commercial paper during the 1920's, it was not until the mid-1930's, when Commercial Credit Corporation and C. I. T. Financial Corporation entered the market as direct placers of commercial paper, that finance company paper became reestablished as a money market instrument. Despite the entrance of these finance companies into the market, the volume of commercial paper increased only slightly during the 1930's. Finance company paper was not immediately accepted by investors, partially because of the public's prejudice at that time against companies involved in consumer instalment lending. Moreover, commercial banks, which now hold about 40 percent of the outstanding consumer instalment paper, did not actively enter the consumer financing field until after World War II. Further, finance company paper was not accepted as collateral for borrowings at Federal Reserve banks until 1937.

³During the depression, defaults on commercial paper were moderate. The worst year, 1931, saw defaults at about 0.6 percent of paper outstanding; this was about five times as great as in other years of the period. See R. T. Sheldon, *Trends and Cycles in the Commercial Paper Market*, Occasional Paper No. 85 (New York: National Bureau of Economic Research, 1963), p. 24.

²G. Walter Woodworth, *The Money Market and Monetary Management* (New York: Harper & Row, 1965), p. 101.



The volume of outstanding commercial paper remained relatively stable throughout the early 1940's, reflecting the abnormal credit situation of the war years and the absence of a demand for funds by finance companies. During the postwar years, several finance companies began to secure funds through direct placement of short-term commercial paper notes. Their demand for funds had increased as a result of the rapid growth in sales of consumer goods, which were generally financed by instalment credit. By 1951, outstanding commercial paper amounted to \$1.33 billion, surpassing the previous high of \$1.30 billion reached in 1920. In 1951, two-thirds of outstanding commercial paper had been placed directly with investors by large finance companies; in contrast, there were no directly placed notes in 1920.

In order to meet the burgeoning demands for consumer credit in the 1950's, finance companies

turned to new sources of funds. These funds were supplied in large part by nonfinancial corporations that were interested in investing their excess funds in high yielding money market instruments. As a result of these supply and demand forces, the volume of outstanding commercial paper rose to a new record (\$3.5 billion) by 1959, with directly placed paper accounting for about one-half of the volume of outstanding commercial paper.

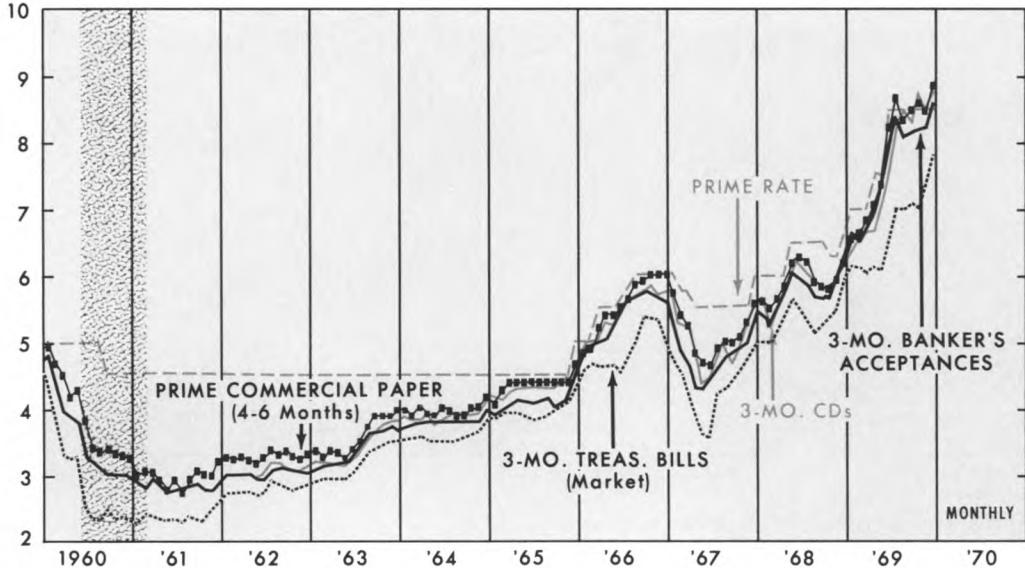
During the 1960's, the volume of outstanding commercial paper grew at a very rapid pace, particularly after 1965, and by yearend 1969 reached \$31.6 billion (see Chart 1). Of the \$28 billion increase in outstandings during the 1960's, \$11 billion was added in 1969.

Several factors account for the growth of commercial paper during the 1960's. The longest peacetime expansion of economic activity in the United States was one factor that contributed to the demand for funds and hence an increase in

Chart 2.

SELECTED SHORT-TERM INTEREST RATES

Percent



Last entry: Dec. '69

Source of data: Board of Governors of the Federal Reserve System

outstandings. In addition, the interest costs of commercial paper remained significantly lower than the bank prime rate during much of the period (see Chart 2). Therefore, corporations could borrow short-term funds in the commercial paper market at a differential from the prime rate of as much as 170 basis points (during 1961). Moreover, credit restraint in 1966 and 1969 forced banks to limit their lending. As a result, several types of industrial firms—most noticeably steel, oil, railroad, gas, electric, and telephone utilities—turned to the commercial paper market to obtain short-term funds. In the late 1960's, finance companies also placed greater reliance on commercial paper than on other forms of borrowing,⁴ and

⁴George W. Cloos, "A Larger Role for Commercial Paper," *Business Conditions*, Federal Reserve Bank of Chicago, December 1968, p. 2.

in 1969, commercial banks (through subsidiaries and holding companies) began to borrow heavily in the commercial paper market.

DEALER PAPER

As mentioned earlier, companies issuing commercial paper sell their notes to investors either through the services of a commercial paper dealer or directly through their own sales organizations. There are several commercial paper dealers operating in the market, although eight firms tend to dominate the dealer market. During the 1960's, several new dealers entered the market, and by 1969 there were more than 30 dealers, compared with less than 10 in 1960. This development helps to account for the sharp increase in the volume of dealer paper after 1965 (see Chart 1).

Businesses that use commercial paper dealers generally place their notes in one of three ways.

One method is to sell the notes outright to the dealer; that is, the borrowing firm is immediately paid the face value of the notes less the discount and commission. This method insures the borrower a specific amount of funds at a definite time. The dealer assumes the risk of being unable to resell the notes at the agreed rate; however, he may benefit by being able to sell the notes at a premium. The outright sale method of placing dealer commercial paper is the most popular.

A second method of placement referred to as "bought as sold" allows the dealer to market the borrowing firm's paper at the best available price, transferring the proceeds of the sale less commission to the borrower after the sale is completed. This method of commercial paper placement accounts for less than 10 percent of the dollar volume of dealer placed notes.

Dealer paper is also placed by the "open rate" method, which is a combination of the first two methods. In this procedure, the borrowing firm receives a percentage of the face amount of the notes when they are delivered to the dealer. After the notes are sold, the dealer remits the balance less his commission to the borrower. Both the "bought as sold" and "open rate" methods shift the market risk from the dealer to the borrower.

Commercial paper dealers maintain an inventory of unsold notes equal to about 10 percent of the outstanding dealer paper at any one time. Inventories are sold and replenished with new issues of commercial paper almost daily. These dealer inventories are generally financed by short-term bank loans, most of which are on a demand basis and are secured by the commercial paper notes in the dealer's inventory. A dealer's commis-

sion on the sale of these notes is 1/8 percent on an annual basis; however, the rate has been as high as 1/4 percent in recent years.⁵

DIRECTLY PLACED PAPER

Directly placed paper is identical to dealer paper in all characteristics except the manner in which it is sold. For both dealer paper and direct paper the amount of the discount depends on prevailing interest rates for similar money market paper with similar maturities. The discount on direct paper, however, is generally less than the discount on comparable dealer paper. This difference reflects the strong financial condition and size of the finance companies that issue direct paper.

The companies that use direct placement are all finance companies with such large and continuous borrowing needs that it is worthwhile for them to maintain their own sales force in order to save the commission charged by dealers. Market participants estimate that when a firm has at least \$100 million of commercial paper outstanding at all times, it is profitable to begin direct placement. However, specific information on the comparative cost of placing paper directly as opposed to dealer placement is not available.

The sales procedures used for directly placed commercial paper are different from those used for dealer paper. The company placing paper directly quotes an interest rate at which funds will be accepted, allowing the investor to set the maturity of the note, generally between 3 and 270 days. If direct placing companies are "in funds"; that is, if they have all the funds they currently

⁵Salomon Brothers & Hutzler.

need, they discourage potential investors by temporarily reducing their rates below the prevailing market rate. This procedure is not always a good practice because the reduced rate could alienate key buyers and endanger investor relationships. Consequently, direct placing companies occasionally borrow funds they do not need in order to maintain customer relationships. These excess funds are generally invested in other short-term securities. Obviously, this method of short-term financing is undesirable for firms whose needs for funds vary widely from month to month. This is one reason why direct placement is generally confined to firms that have a continual need for new funds.

At present, there are more than 30 companies engaged in direct placement that are either independent or "captive" finance companies. Captive finance companies are wholly owned subsidiaries of major firms; for example, General Motors Acceptance Corporation, General Electric Credit Corporation, and International Harvester Credit Corporation, among others. Some of these subsidiaries only finance the sale of goods produced by the parent company, while others finance a wide range of products, including goods produced by competitors of its parent company. Captive finance companies can generally secure the same banking benefits allowed their parent companies. However, when both the parent and the captive are large firms, they try to avoid appearance of association. Consequently, the parent company of a captive finance company often purchases commercial paper from a competitor's captive finance company.

ISSUERS OF COMMERCIAL PAPER

Commercial paper has distinct advantages for the issuer, or borrower, over other types of

short-term financing. Interest costs are generally lower on commercial paper than on bank loans, which often carry the added costs of compensating balances. Furthermore, in periods of credit stringency, when compensating balances often are increased, the differential between rates on commercial paper and bank loans (with compensating balances) has been as great as 200 basis points.⁶ Similarly, in periods of credit ease, bank rates tend to be "sticky"; that is, while commercial paper rates follow the declines of other money market rates fairly quickly, bank rates are slower to decline.

Another advantage of commercial paper is that funds are readily obtained. A borrower can arrange to issue a specified amount of paper through a dealer and then sell the paper without any advance notice (similar to establishing a line of credit at a bank). Finally, participation in the commercial paper market generally enhances the borrower's corporate image, because the issuers of "prime" commercial paper are companies that have shown financial and managerial excellence.

There are, of course, some disadvantages in issuing commercial paper. Possibly the most common restraint centers around established bank relationships and the traditional use of bank funds. Some firms believe that the issuance of commercial paper could alienate their existing banking relations. Other firms do not issue commercial paper because of the potential problems in securing funds at various seasonal peaks when interest rates are higher and/or funds may not be available in the market. This is especially true at yearend when there is an abundance of "windowdressing"

⁶For instance, the effective interest rate of an 8 percent (prime) bank loan with a 20 percent compensating balance is 10 percent.

Distribution of Outstanding Commercial Paper Issues
By Type of Business
Selected Years

	1957		1967		1968		1969	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Industrial	240	71.6%	108	29.4%	149	33.5%	236	36.3%
Public utilities	—	—	25	6.8	82	18.4	153	23.5
Finance	92	27.5	92	25.1	99	22.2	112	17.2
Bank holding companies	—	—	—	—	—	—	42	6.5
Insurance	—	—	—	—	1	0.2	9	1.4
Transportation	—	—	2	0.5	4	0.9	9	1.4
Other	3	0.9	140	38.1	110	24.7	90	13.8
Total	335	100.0%	367	100.0%	445	100.0%	651	100.0%

NOTE: Details may not add to 100 percent because of rounding.

Source: National Credit Office

for financial statements. Some firms are also reluctant to issue commercial paper because outstanding notes must be paid at maturity, in contrast to bank loans that can often be renewed for extended periods. In addition, unlike bank loans, commercial paper cannot be paid off at the discretion of the issuer before the maturity date.

Despite these disadvantages, more corporations have entered the commercial paper market in recent years (see table). In fact, in the 1957-1969 period, the number of commercial paper issuers almost doubled. However, most of this growth occurred in 1969, when 206 additional firms became issuers of commercial paper.

In 1957, almost all of the commercial paper borrowers were industrial firms or finance companies. During the 1967-1969 period, a large number of additional industrial firms, principally oil, steel, and railroad, entered the market. Similarly, food processors, tanners, grain dealers, textile producers, wholesale and retail firms began using the commercial paper market with increased regularity in the late 1960's. There were 236 industrial firms issuing commercial paper at year-

end 1969, compared with 108 in 1967. In 1969, these industrial firms accounted for more than 36 percent of the outstanding commercial paper, compared with 29 percent in 1967. Finance firms, which issued about one-fourth of the commercial paper outstanding in 1957, accounted for less than 20 percent of the outstandings in 1969.

The relative decline of industrial and finance company outstandings since 1957 reflects the entrance of public utilities, bank holding companies, and transportation companies into the market. In 1969, dollar outstandings of these new entrants into the market accounted for about one-third of the total. The 153 public utilities that tapped the market in the middle and late 1960's accounted for nearly one-quarter of the outstandings by 1969. Bank holding companies, the newest group to become large commercial paper issuers, accounted for almost 7 percent of the outstanding paper. Insurance and transportation companies are still not as active as other firms in the market and, consequently, accounted for less than 3 percent of outstandings in 1969.

ECONOMIC REVIEW

The size of issuing companies as well as the relative importance of various industries that issue commercial paper has changed since 1960. In that year, the National Credit Office, a subsidiary of Dun & Bradstreet, reported that 33 percent of the firms issuing commercial paper had a net worth in excess of \$25 million. By 1967, 70 percent of the firms issuing commercial paper had a net worth that exceeded \$25 million. Although complete data are not available on the net worth of all commercial paper issuers since 1967, it can be assumed that the trend to larger issuers has continued.

This shift to larger issuing firms reflects factors influencing both the supply of and demand for commercial paper. On the supply side, the 1960's witnessed a sharp growth in the size of business firms as a result of internal expansion or mergers. This was especially true in the textile industry, which has traditionally been a heavy borrower through commercial paper. On the demand side, the market became more discriminating as investors limited their purchases of the notes to those issued by large, well-established firms. This is evidenced by the strong market for directly placed paper issued by large well-known finance companies.

Seasonal Fluctuations in the Outstanding Volume of Commercial Paper. One common characteristic of the firms that place their paper through dealers is the seasonal nature of their operations. Sales of commercial paper provide these firms with funds to finance seasonally large inventories or accounts receivable. As evidenced by monthly data on commercial paper placed through dealers, the amount of outstandings increases at the end of the summer and reaches a peak during November. Outstandings increase again during January, reach a peak in March, and

then decline through the summer months. In contrast, because the sales finance companies sell paper continuously throughout the year, small monthly fluctuations in the amount of outstanding paper might be expected. During the early years of the 1960-1969 period, the amount of outstanding commercial paper rose consistently throughout the year and contracted sharply only during the month of December. In recent years, however, monthly swings have become sharper; downswings have occurred not only in December, but also during April, June, and September. The timing of such downswings corresponds to corporate tax payment dates.

BUYERS OF COMMERCIAL PAPER

Historically, banks have been the principal purchasers of commercial paper. However, since the early 1950's, a large part of the demand for commercial paper has come from other institutions, specifically industrial firms, nonbank financial institutions, pension funds, mutual funds, and nongovernmental agencies. Commercial paper is an attractive investment to these institutions because of its combination of security, attractive yield, and short maturity.

The security of commercial paper is considered second only to that of U. S. Government obligations. The commercial paper market has historically experienced only minimum financial losses, with no loss reported for almost 35 years. This no-loss record reflects both the strong financial position of the companies that issue paper and the constant surveillance of dealers and agencies in assuring the integrity of the market. In addition, there is intensive credit analysis of the companies that issue commercial paper. The National Credit Office collects data on virtually all firms issuing commercial paper and publishes statements on

each commercial paper borrower, including the names of the borrower's principal banks and the amounts of unused lines of credit open to the firm.⁷ After careful analysis, the National Credit Office rates the new issues as "prime," "desirable," or "satisfactory." More than two-thirds of the outstanding commercial paper is rated "prime," with nearly all of the remaining paper rated "desirable." The National Credit Office's rating is reflected in the rate of discount (yield) paid on the notes. "Prime" paper is generally 25 basis points lower in yield than "desirable" paper. Most frequently quoted market yields refer to prime commercial paper.

The absence of a strong secondary market is one disadvantage for investors in commercial paper. Although commercial paper is sold in "bearer" form and could be resold in a secondary market, purchasers of commercial paper usually hold the notes to maturity. However, some dealers and direct placing companies have buy-back arrangements based on mutual agreements between an established buyer and the dealer or the issuer.

Although information regarding the number, type, and dollar amount purchased is limited, it is known that the largest portion of commercial paper is purchased by corporations and institutional investors who generally buy in blocks of \$100,000 or more.⁸

ROLE OF COMMERCIAL BANKS IN THE MARKET

Commercial banks play an important role in the commercial paper market. They act as agents for

⁷These lines of credit are sometimes referred to as collateral behind commercial paper. However, the notes are generally considered unsecured in the usual sense.

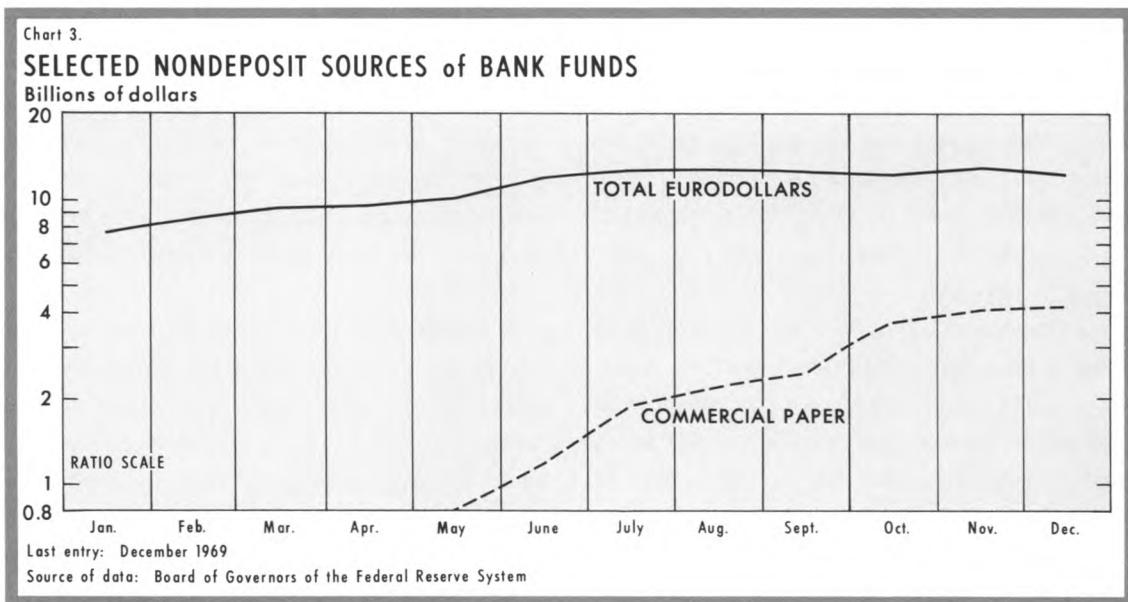
⁸George W. Cloos, *op. cit.*, p. 6.

both direct and dealer placed paper by issuing the notes, holding them for safekeeping, facilitating payments through the use of Federal funds, and providing lines of credit to issuers. Although commercial banks were the largest holders of commercial paper for many years, bank holdings of paper are now small in relation to total outstandings.

It would be difficult for the commercial paper market to operate in its present fashion without bank lines of credit and the agent relationship of the bank in recommending the purchase of certain notes to customers. It is, therefore, somewhat surprising that banks would compete directly with commercial paper dealers for short-term investment funds through sales of certificates of deposit and more recently through bank issuance of commercial paper.

During 1969, however, banks were hard pressed for loanable funds and consequently came to rely more heavily on new sources of funds, especially Eurodollars⁹ and bank-related commercial paper. Bank commercial paper must be issued by a bank subsidiary or bank holding company; the volume of such borrowing increased by more than \$3 billion in the last eight months of 1969 (see Chart 3; earlier data are not available). Most of this commercial paper was sold to bank customers who wanted to redeem their low interest bearing certificates of deposit. As banks began to participate extensively in the issuance of bank-related commercial paper in late 1969, the Federal Reserve System proposed certain regulations that, in effect, would limit the amount of interest that can be paid on such instruments. As yet, these regulations have not been put into effect.

⁹See "The Eurodollar Market: The Anatomy of A Deposit and Loan Market," *Economic Review*, Federal Reserve Bank of Cleveland, March 1970.



RATE RELATIONSHIPS

Yields on commercial paper are closely related to other interest rate levels prevailing in the money market. Although commercial paper rates are most often quoted on an interest bearing basis (365-day year), the notes are sold on a yield (discount) basis (360-day year); thus, the actual yield is fractionally greater than the interest quoted. Typically, these notes bear interest at rates that are above rates on short-term Treasury bills and also compare favorably with rates on bankers' acceptances and CDs (see Chart 2).

Several relationships are apparent from the chart. First, the inter-rate relationship for each series (except the prime bank rate) is quite similar over time. For example, commercial paper rates were consistently higher than Treasury bill yields, while the prime rate was the highest rate (except in 1969). Second, with few exceptions, the rates followed similar cyclical patterns. Third, there are

rather noticeable concurrent changes among the series resulting from changing conditions of monetary ease and restraint. That is, rates tend to respond rapidly downward in conditions of monetary ease and increase sharply in periods of monetary restraint. Fourth, two distinct economic periods emerged in the decade of the 1960's. The first period began at the close of the 1961 recession and continued through yearend 1965 and was characterized by relatively stable prices, stable monetary policy, and low interest rates. The second period, which began in January 1966 and continued through December 1969, was a period of excess economic demand and inflation, wide swings in monetary policy, and more volatile interest rates. However, during these two diverse periods the rate on prime dealer paper usually remained between 25 to 50 basis points above the yields on three-month Treasury bills and slightly above CD yields in the secondary market, resulting

in yield differentials that made commercial paper attractive to investors.

The prime commercial paper rate historically was at least 1 percent below the prime loan rate charged by major commercial banks. However, since 1965, the gap first narrowed and then closed, and on three occasions in the second half of 1969, the prime commercial paper rate rose above the prime rate. This shift in rate relationships in late 1969 tempted commercial paper borrowers to turn instead to commercial banks for funds and resulted in several bankers advocating an increase in the bank prime rate, but the nature of the economic climate prevented a change in the prime rate. Finally, with the entrance of banks on the borrowing side of the commercial paper market, it is possible that the relationship of CD rates and those on commercial paper will become more significant. This, of course, will depend on the proposed Federal Reserve regulations mentioned earlier.

SUMMARY

During the 1960-1969 period, the dollar volume of commercial paper outstanding skyrocketed, with the largest increases occurring since 1965. This dramatic increase in outstandings reflects significant changes in the commercial paper market. New investors, issuers, and dealers entered the market, increasing the size and depth of the market.

Continued growth and development of the commercial paper market will depend on the willingness of commercial banks both to borrow in this market and to issue lines of credit to other issuers of the notes, thereby providing issuers with the ability to meet commercial paper repayment schedules. Further, the dominance of the market by large industrial firms will probably continue as these firms constantly seek additional working capital. Finally, future changes and growth in the market will be influenced by related developments in the highly competitive money market.



ECONOMIC REVIEW

(Continued from page 2)

have recently been showing signs of strength, although a significant turnaround in housing probably lies some months ahead. Of course, the economic news will be spotty for some time, as it always is when business is about to turn. Extensive labor difficulties have delayed or dampened the resumption of economic activity, as recent work stoppages in the trucking and rubber industries have illustrated, and for such reasons the production index probably declined slightly in April, but by June an upturn quite likely will have occurred.

A massive shift in Federal expenditures also has occurred in the second quarter, and the budget has moved from surplus to deficit. While partly unplanned, this shift has provided an important support for the economy. Higher Social Security benefits and the Federal pay raise will boost personal income this quarter by about \$10 to \$12 billion at an annual rate. In addition, the income tax surcharge will be eliminated on July 1, adding another \$3.5 billion to disposable income. These sharp injections of income should provide strong support to consumer spending and final sales by late spring and early summer of this year. Moreover, capital spending by business remains strong, and, as I have already suggested, the decline in business inventory investment appears largely to have come to an end.

As you know, monetary policy has endeavored to move cautiously towards moderately less restraint in recent months in order to avoid a sharp contraction in economic activity. The move has been small, though, since anything more than a moderate resumption of growth in the present environment would add fuel to inflation. I fully support and endorse the current program of moderate growth in bank credit and in the money supply at rates consistent with a moderate rate of growth in real economic activity. A policy of

moderate growth in bank reserves and the monetary aggregates will not be inflationary under present conditions. The economy is operating well below its potential output (in manufacturing alone, 80 percent of plant capacity is utilized currently) and is expected to remain below potential this year and throughout 1971.

Although inflationary pressures caused by excess demand have been eliminated by appropriate fiscal and monetary policies, costs continue to rise as labor seeks to catch up with the shrinking purchasing power of the dollar, and as industry seeks to adjust selling prices to offset shrinking profits and profit margins. Because of these pressures, consumer prices have continued to advance at an annual rate of about 6 percent thus far this year, and the GNP deflator, our most comprehensive price measure, rose at an annual rate of 5 percent, or about the same as in the second half of 1969.

We should have no illusions about the response of prices to slower growth in the economy. The current inflation developed over a period of many years, and it cannot be expected to disappear overnight. On the other hand, I believe that current policies are correct, and that real progress has already been made. Although wholesale prices of industrial commodities are still rising, on the average the increases have been less than six months ago; moreover, wholesale prices of agricultural commodities have turned the corner, with the result that the wholesale price index failed to rise in April. In addition, I think we can look forward with some confidence to still further progress on the price front over the months ahead. Prices of agricultural commodities should be lower this fall, because of the improved outlook for marketings of livestock. Also, since excess demand has been eliminated, it will become more difficult

to pass on higher costs to the consumer, which means that there is greater resistance to wage-price pressures.

Slowly, but inexorably, I believe that cost-price inflation will also be brought under control. An important reason is that when production turns upward, as I expect it will shortly, output per manhour will rise. This will help to moderate increasing unit labor costs, and thereby help to reduce upward price pressures. Thus, powerful forces are to work in our economy to reduce price inflation, both on the demand side and on the supply side.

It is not without interest that the same factors working to reduce commodity prices should also begin to reflect favorably on the markets for capital instruments. A sharp increase in output per manhour would mean higher profit margins and higher profits. This would, before too long, provide additional internal sources of funds to business corporations and thus reduce pressure on the capital markets. I am not going to predict the future course of bond and stock prices—I have

lived too long for that. But if things work out the way I think they will, the outlook for the capital markets is clearly not entirely bleak.

Finally, let me add a few brief remarks about the Federal budget, since it has been the cause of much comment and concern. Indications are that the Federal budget has swung sharply into deficit in the second quarter, but as things are now planned, the deficit will be reduced in the second half of 1970, and the budget will eventually move back into surplus as the economy slowly approaches its full-employment path. (In technical terms, the high employment budget will be in very large surplus in the second half of 1970, which means that the budget will be working strongly to moderate inflationary pressures.) Under these circumstances, the appropriate course for monetary policy is to permit modest expansion of bank credit and the money supply, and to promote a resumption of growth in output and employment. The stage is set for a modest recovery; we should soon see the results, hopefully before summer comes to an end.

