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Euro-Dollars and the New York Money Market\*

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A large international money market in short-term dollars has developed outside the United States within the past six or seven years. This market is called the Euro-dollar market because the transactions in it concern U.S. dollars and because these transactions are negotiated and completed outside of the United States. These transactions are made possible because Americans and foreigners deposit dollars with banks outside the United States, which have found profitable uses for them. Most of these dollars are deposited with banks in Canada and London, but a substantial amount is deposited with banks in continental European centers. These dollars are employed by the original bank depository or, through a process of redepositing, by other banks. The original dollar deposits represent funds owned by monetary authorities, business enterprises, and individuals in many countries. Correspondingly, the final users of dollar funds may be commercial banks, business enterprises, and individuals in many countries and monetary authorities in a few countries.

It may be estimated with some assurance that dollar deposits come from at least 25 countries and that the final users of dollars reside in at least 35 countries.<sup>1/</sup> About 400 commercial and private banks are in the Euro-dollar market. Many of these banks are in the market all the time, and they may be on one side or the other, depending upon profits that may be earned from interest rate differentials and arbitrage possibilities. Other banks are in the market irregularly in order to deal with the financing needs or the savings accumulations of particular clients. The Euro-dollar market knows no politics. The two large communist banks in Western Europe--the Moscow Narodny Bank in London and the Banque Commerciale de l'Europe du Nord in Paris--are important components in the market, sometimes to place deposits with other banks (lend) but more often to accept them (borrow). The state banks of most of the countries behind the iron curtain are in the market, and many of these regularly circularize commercial banks in the West in

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<sup>1/</sup> Complete data have not yet been made available on these points. Indeed, there would be difficulties in interpreting data on the countries from which Euro-dollars are reported to come, since many suppliers act through nominees or agents in other countries.

order to obtain deposit funds. Brokers play an important specialized role as intermediaries among banks, and two of them--one in Paris and the other in Lausanne, with their branches--do a large international business.<sup>1/</sup> The market in Euro-dollars is a wide and complicated one spread over six continents and bound together by a network of cable, telex, and telephone communication. The paper work in the market tends to confirm rather than to initiate transactions. The financial standing of the banks in the market is such that transactions are based on names and do not involve collateral and guarantees.

## I

There are three major uses for Euro-dollars.

First, a large part of these dollars is used to finance external commercial transactions, i.e., exports and imports. Indeed, many countries in Europe and elsewhere try to restrict Euro-dollar activities to those business enterprises that are engaged in foreign trade. These restrictions operate through systems of capital controls, or exchange controls, or moral suasion by central banks. Even European countries with convertible currencies may restrict or prohibit business enterprises not engaged in foreign trade, e.g., hotels and department stores, from borrowing Euro-dollars, even though borrowing dollars may be cheaper than borrowing local currency. This is, for example, the situation in France. In the last two or three years, with the expansion of issues of long-term securities denominated in dollars in European capital markets, underwriters and syndicate members have used Euro-dollars to finance their inventory positions. Italy made a large and noteworthy use of the Euro-dollar market in 1962-63, borrowing more than \$750 million from abroad, of which about half came from the Euro-dollar market. These funds were used to finance external transactions and to make possible a continuing increase in domestic liquidity, which, in effect, reduced the drain upon official reserves. Acting under instructions from the Bank of Italy, the commercial banks began to reduce their net external liabilities in the fourth quarter of 1963 and have by now gone a long way toward reversing their position.

Second, some Euro-dollar funds are used to finance commercial loans and other domestic transactions either in the form of dollars or in local currency purchased with dollars. There has been a large amount of such transactions in Germany, Italy, Japan, and smaller amounts in many other countries, including Switzerland. In the United Kingdom, a substantial amount of Euro-dollars has been swapped into sterling and then placed with local authorities and installment finance companies. The Kingdom of Belgium has, directly or indirectly, financed part of some of recent budget deficits with the local currency proceeds of Euro-dollar borrowings.

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<sup>1/</sup> Nine members of the Foreign Exchange Brokers' Association have recently formed a new company, FEBA (London) Ltd. to arrange Euro-dollar and other foreign currency deposits between banks in London and those in overseas centers (The Economist (London), September 19, 1964, p. 1155).

The third aspect of the Euro-dollar market is in some respects the most interesting one. The Euro-dollar deposit is a new and international money market instrument which makes it possible for hundreds of commercial banks to deal with each other continually in order to adjust their own liquidity positions. Each bank makes its own adjustments for this purpose by dealing in funds with different stated and implicit maturities, different interest rates, and different counterparties.

On an international scale, Euro-dollar deposits used in this way are analogous to the many kinds of domestic funds in the American market; federal funds,<sup>1/</sup> short-term government securities, certificates of deposit,<sup>2/</sup> and that recent newcomer, short-term unsecured promissory notes issued by a number of leading American banks.<sup>3/</sup> European commercial banks can invest in Euro-dollar deposits with a broad range of maturities. This facility is the more important because few countries have short-term money markets that are as liquid, and investment media that are as broad, as those in the United States. For one reason or another, some industrial countries have only a small amount of tradeable money market instruments, while others have domestic money market instruments that are available only in a controlled market, or at a regulated interest rate. It is, therefore, understandable that commercial and private banks in Europe should welcome an uncontrolled, flexible, and international money market instrument to facilitate their own operations. Moreover, Euro-dollar deposits help commercial and private banks to obtain funds outside of the channels of their regular customers.

The role of Euro-dollars as a money market instrument has some important implications. A substantial part of the Euro-dollar pool circulates and re-circulates endlessly among banks. To this extent, any discussion about using short-term Euro-dollar funds to finance long-term investments in plant, equipment, or inventory is beside the point. Furthermore, attempts to find the

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<sup>1/</sup> American banks have long used the market in federal funds to equalize their required reserve positions. But in the last few days the Morgan Guaranty Trust Co. has twice bought federal funds at 3 5/8 per cent, a premium of 1/8 per cent over the discount rate. The Wall Street Journal reported on this action as follows: "Morgan Guaranty's action in paying the premium rate Friday was viewed by many as a precedent-making step, suggesting another possible method by which banks would borrow sizeable amounts of short-term funds for relending and investing. The big New York bank had indicated that it chose to pay the higher rate for Federal funds in order to feel free to lend or invest the money without any questions asked by the Federal Reserve officials. Ordinarily, banks that borrow at the 'discount window' of the Federal Reserve banks are expected to use the funds chiefly to tide themselves over a temporary deficiency of reserves rather than to use the money to invest or lend at a higher rate" (October 6, 1964).

<sup>2/</sup> In the few years since their introduction, outstanding certificates of deposit--a new monetary instrument designed to meet the competition of foreign markets and the domestic competition of savings and loan associations and other corporations--have increased to more than \$12 billion.

<sup>3/</sup> Wall Street Journal, September 3 and 25, 1964. These have the same function as certificates of deposit and are similar to the unsecured promissory notes issued by large sales finance concerns. Almost \$7 billion of such finance company paper is outstanding.

specific end uses of particular Euro-dollar deposits are often quite vain. Euro-dollar funds and other banking funds are increasingly commingled. On the one hand, the sources and uses of Euro-dollars affect what the bank does with the rest of its funds; on the other hand, the funds that the bank has, and what it does with these funds, affect its operations in Euro-dollars. As banks have acquired more experience with Euro-dollar operations, they have modified their views on putting lending and borrowing operations in Euro-dollars in a separate compartment and treating them as an adjunct to their exchange operations. More and more banks look on their dealings in Euro-dollars as an operation run by senior officers to increase the profits of the bank as a whole in both the short run and the long run.

This has been the attitude of American banks whose foreign branches have been and are major operators in the Euro-dollar market. The amount of deposits accepted by foreign branches, and the interest rates paid on them, are determined by or cleared with the head offices. A large part of the Euro-dollar deposits obtained by foreign branches of American banks is made available to their head offices and commingled with other funds.

The proportion of Euro-dollar deposits made available by foreign branches of American banks to their head offices has been decreasing for some time. Three or four years ago the bulk of these funds, perhaps 75 per cent or more, was handled in this way. But this percentage has fallen markedly with the overseas expansion of American banking and industry. Foreign branches of American banks have become more familiar with loans to foreign corporations as well as to foreign subsidiaries and branches of American corporations. Managers of foreign branches of American banks wish to pursue an aggressive policy to show maximum profits for their branches by lending their own deposits--rather than the much lower profits that would accrue to them from putting Euro-dollars at the disposal of their head offices. In some cases, the percentage of Euro-dollar funds put at the disposal of head offices is now apparently well below 50 per cent.<sup>1/</sup>

## II

Virtually all commentators on the Euro-dollar market have warned of the possibilities of abusing it. And it is true that the facilities offered by the Euro-dollar market may be abused in a number of ways. But it is also true that similar abuses are not unknown in commercial banking that does not make use of Euro-dollars.

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<sup>1/</sup> It may be noted in passing that this development is technically good for the U.S. balance of payments. When the foreign branches of American banks loan to a foreigner dollars that have been deposited by a foreigner, the balance of payments of the United States is not affected. But when the head offices of American banks loan to a foreigner dollars which have been deposited by a foreigner (directly or via a foreign branch), there is an increase in the balance of payments deficit as currently calculated.

Individual banks, or all of the banks in the Euro-dollar market collectively, may obtain funds on short term and lend them on very much longer term. Though some of this is inherent in banking operations, too much of a spread between borrowing and lending maturities will impair banking liquidity. Again, the rapid expansion of Euro-dollar facilities, and the growing international competition among banks, can easily lead to undue reliance on the quality of "names." Such reliance, when combined with a premium on quick decisions, can lead to relaxation of banking requirements for good and up-to-date information on assets and liabilities, profits, and the total of outstanding borrowings and contingent obligations. Losses within the past two years in several well-publicized cases have underlined such risks.

The rapid development of the Euro-dollar market, the facilities offered by a new money market instrument, and the increased although gentlemanly competition among banks on both the domestic and international scene, have been accompanied by a certain amount of exuberance. The recent losses in Euro-dollars appear to have curbed some of this exuberance and thus strengthened the market without interfering with its growth.

It should be noted that banks have gone international very rapidly. Many banks and their investment subsidiaries have been anxious to get in on the ground floor. They have tried to develop, even at some cost, new customer relationships that would be profitable in the long run. They have considered certain low profit business as institutional advertising. It has taken a bit longer, perhaps, to realize that every country differs from every other--in the number of sets of accounting records that it regards as good business; in the amount of disclosure that it regards as good for the Board of Directors, the stockholders, and the stock exchanges; in accounting standards and practices; and in views of tax morality.

Such a simple problem as determining how much a European corporation has borrowed, and from whom, may be very difficult when corporate structures are complicated, and when borrowings are made in many countries and from many banks that have traditionally refused to disclose anything to each other or to third parties. It is understandable, therefore, that there have been voices asking for better advisory and rating services on an international scale, and for more uniform accounting standards and disclosure along the lines of those administered by the Securities and Exchange Commission, and encouraged by stock exchanges and accounting firms. There have recently been discussions in Europe advocating more uniform accounting practices, better reporting, and a European credit agency which would collect and consolidate data on corporate borrowings--what in Europe is called a centralization of risk service. The Bank of France has for a number of years required banks in France to report all loans to business enterprises over stated minima; the Bank then tabulates these reports to obtain and make available data on consolidated borrowings of various types. Italy has recently announced the formation of a similar official service. Great Britain has private facilities of this type. But most other industrial countries have neither the one nor the other.

European and American bankers would undoubtedly welcome a centralized reporting system on outstanding commercial credits of European corporations. But it will probably take a good deal of time to establish this, and M. Julien Koszul, Director-General of Foreign Services of the Bank of France, may well be right in thinking that a system of European scope will depend upon each major country's first developing its own reporting system.<sup>1/</sup> If commercial banks in Europe will not collaborate voluntarily to report their larger loans to an independent private agency, so that they can all benefit from consolidated totals, information on outstanding loans and credits can then only be collected by official national agencies acting with mandatory powers.

The point of this discussion about credit reporting and accounting standards is that some of the possibilities of abuse in the Euro-dollar market are also inherent in the rapid internationalization of commercial banking. Many of the same banks, and many of the same banking officers, operate in both areas. Improvements made for Euro-dollar operations will flow over to more customary banking operations, and vice versa. In the process the whole level of international banking will be improved.

A few words should be said about the supposed lack of liquidity and stability that may come in the Euro-dollar market from borrowing short and lending long, but with the caution that some of these words may apply to commercial banking generally.

In the first place, there are no over-all or consolidated data showing the distribution by maturity of Euro-dollar deposits and loans. Some banks may have developed statistics covering their own operations; and Japan collects data on the distribution by maturity of Euro-dollar deposits accepted by Japanese banks in order to improve its overview of the balance of payments and the significance of its international reserves.

In the second place, there would be great difficulties in interpreting data on the maturity distribution of Euro-dollar deposits and loans, even if they were available. Things very often are not precisely what they seem. Euro-dollar deposits may be accepted as short term by a bank, and may so appear on its books, even though both the depositor and the bank know that the money will remain on deposit for substantial periods of time, perhaps for several years. The depositor may prefer to show his deposits as short term to comply with legal requirements or customary practice. For example, deposits by monetary authorities and insurance companies are often made on such arrangements. When this is the understanding, the depositor will, quite reasonably, expect to earn something more than the short-term rate, and actual interest payments may be renegotiated at intervals of (say) three or six months. In transactions involving several corporations in the same business family, the maturity of loans to one may be tied to the maturity of the deposits of others. In other cases, loans may be subject to termination, and longer-term loans may be subject to interest rate adjustments which may put pressure upon the borrower. The real or effective distribution by maturity of Euro-dollar deposits

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<sup>1/</sup> "Euro-dollar, Euro-devises," Banque (Paris), No. 218, August 1964, pp. 513-14.

and loans may thus differ significantly from the distribution calculated from the bank's records. Neither should it be overlooked that when banks accept risks of this kind, they expect to be compensated for them by charging higher rates.

In the third place, many of the world's largest and best regarded banks are in the Euro-dollar market. Not one of these banks thinks that it is taking any undue or uncompensated risks, though it may be willing to concede or even to affirm that its competitors are. There is nothing in the Euro-dollar market equivalent to the odd-lot investor buying five shares of stock. The chips in this game are high and transactions run to six or seven figures. Everybody who operates in the market knows the risks, as well as the potential profits, of arbitraging loans and deposits of different maturities. No one wishes to be caught in a squeeze which is too tight or in an increase in interest rates which is too costly. Hence, behind the network of Euro-dollar deposits and redeposits, behind the network of lendings and relendings, there is a network of stand-by agreements, lines of credit, and banking guarantees. Business enterprises may have these second line defenses with banks, and banks may have them with other banks. Exposure in the Euro-dollar market is thus both direct and indirect. Some commercial banks and central banks may have a larger stake in the market than they suspect.

Despite all these qualifications, there is no doubt that some aspects of the Euro-dollar market can be improved. The fact that individual risks may be smaller and more widespread than appears at first glance does not reduce the total risks of everybody. Indeed, to the extent that the network of reinsurance, in the form of lines of credit and stand-bys, is largely concentrated in the United States, the exposure of this country may be larger than that based only on the Euro-dollar deposits and loans of the American banks that operate directly in the market. Hence steps to improve the information available in and about the Euro-dollar market are more than desirable--they are necessary.

### III

Interest rates on Euro-dollars are determined by very broad competitive forces. These include interest rates on loans and deposits in the American market, interest rates on loans and deposits in other major currencies, such as sterling, deutsche mark, and Swiss francs, and spot and forward exchange rates of each of these currencies relative to the dollar. Since there is extensive arbitraging by commercial banks among all the major currencies, the covered interest rate paid on (say) Euro-sterling deposits is, except in very unusual circumstances, approximately equal to the interest rate paid on Euro-dollar deposits. Thus, in 1962, interest rates on Euro-dollar deposits averaged 3.77 per cent, while the cost of dollars obtained through swapping sterling deposits into dollars was equal to 3.83 per cent. This cost of dollars obtained indirectly was equal to an interest rate of 4.95 per cent on Euro-sterling deposits less the forward discount of sterling with respect to the dollar of 1.12 per cent. In the first eight months of this year, interest on 90-day Euro-dollar deposits averaged 4.22 per cent, while the cost of dollars obtained via Euro-sterling was 4.15 per cent: 4.81 per cent on Euro-sterling deposits minus 0.66 per cent forward discount on sterling. (See Appendix I.)

In general, interest rates on deposits of all currencies that command a forward premium over the dollar tend to be lower than interest rates on Euro-dollar deposits by the amount of this premium, while interest rates on deposits of currencies that stand at a forward discount relative to the dollar tend to be higher than interest rates on Euro-dollar deposits by the amount of this discount. All of these rates are mutually self-determining, but the foreign markets for dollars are so much more important than the foreign markets for all other currencies combined--perhaps in the order of three to one--that the interest rates on all non-dollar Euro-currencies tend to be adjusted to the interest rate on Euro-dollars.

The rate of interest on Euro-dollar deposits is thus truly an international rate that reflects the interplay on demand and supply factors in many countries, so that a change in any one element is unlikely to change the nature or the course of the Euro-dollar market in any decisive way. It was often assumed, for example, that if commercial banks in the United States could compete freely for the time deposits of foreign governments and foreign monetary authorities, free from the restraints of Regulation Q, they would attract large amounts of such deposits.<sup>1/</sup> After these restraints were removed in October 1962, foreign time deposits increased from about \$2.2 billion to \$3.2 billion at the end of 1963 and to \$3.8 billion in August 1964.<sup>2/</sup> Interest rates on all other time deposits were increased at the beginning of 1962 and again at the beginning of 1964,<sup>3/</sup> and the development of certificates of deposit has had the practical effect of raising interest rates on the short end despite the restrictions of Regulation Q. Nevertheless, the Euro-dollar market is still here, stronger and bigger than ever.

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<sup>1/</sup> The relationship of Regulation Q to the Euro-dollar market is discussed in O. L. Altman, "Recent Developments in Foreign Markets for Dollars and Other Currencies," IMF Staff Papers, March 1963, pp. 78-84. The view was expressed there that the effect of Regulation Q upon the development of the market was generally much overstated.

<sup>2/</sup> See Appendix II. Under Secretary of the Treasury Roosa in 1962, when testifying in favor of the bill to exclude foreign time deposits from Regulation Q, estimated that foreign governments and international agencies held more than \$2 billion of time deposits and that, with higher interest rates, this amount might gradually be doubled. *Ibid.*, p. 79.

<sup>3/</sup> Maximum interest rates (in per cent) that could be paid by member banks of the Federal Reserve System on time and savings deposits were changed as of the effective dates shown, as follows:

	<u>Jan. 1, 1957</u>	<u>Jan. 1, 1962</u>	<u>Jan. 17, 1964</u>
Savings deposits held for:			
One year	3	4	4
Less than one year	3	3½	3½
Other time deposits payable in:			
One year or more	3	4	4
6 months-1 year	3	3½	4
90 days-6 months	2½	2½	4
Less than 90 days	1	1	1

Since 1961, short-term interest rates have risen in the United States, in the Euro-dollar market, and in virtually all the major countries in Europe. Euro-dollar rates have gone up less than U.S. Treasury bill rates, so that the difference between the two has become much narrower. In the last three years, the absolute difference has decreased from 123 to 72 basis points, with the result that the rate on 3-month Euro-dollars, which was 52 per cent higher than U.S. Treasury bill rates in 1961, was only 21 per cent higher this August.

Interest Rates for Three Months on Euro-Dollar Deposits and  
on New Issues of U.S. Treasury Bills, 1961 to Date

	1961	1962	1963	1964 <sup>1/</sup>
Euro-dollar deposits (per cent)	3.58	3.77	3.90	4.22
U.S. Treasury bills (per cent)	2.35	2.76	3.16	3.50
Difference, basis points	123	101	74	72
Difference as percentage of yield on Treasury bills	52	37	23	21

Source: Rates on U.S. Treasury bills from Federal Reserve Bulletin; rates on Euro-dollar deposits in London from Bank of England, Quarterly Bulletin.

<sup>1/</sup> Through August.

The United States has been trying for several years to increase domestic short-term interest rates without increasing long-term rates, which might limit the current economic expansion before full employment is reached. Debt and monetary policies have been keyed to this objective. In the last few years, the shortest-term interest rates have risen the most, while long-term rates have been remarkably steady and mortgage rates have been under downward pressure. The structure of interest rates in the United States has thus become considerably flatter. But the same development can be observed in the Euro-dollar market, within the range of maturities dealt with there, as well as in the major countries of Europe.

Can one conclude that domestic short-term interest rates have risen solely for domestic reasons and that interest rates on Euro-dollars have increased sympathetically? The chain of causation is much more complicated than that. Interest rates on Euro-dollars have clearly been an important factor in pulling up short-term interest rates in the United States. But a broader international perspective on interest rate movements is necessary. Short-term interest rates in the major continental European countries have also increased. The pressures of full employment and rising prices in these

countries are increasing the demand for money, and the monetary authorities are reacting to these pressures with a tighter monetary policy. A number of European countries would probably prefer, other things being equal, even higher interest rates. But these would encourage larger inflows of foreign capital as well as larger repatriations of funds by residents. The authorities would not like to add to the tasks they already have the need to deal with larger capital inflows.

Interest rate developments may be interpreted in a number of ways. The interest rate increases in the United States and in the Euro-dollar market may be regarded as permissive, in that they made it possible for many European countries to follow a higher interest rate policy without the danger of augmenting capital inflows. Or, the increases in interest rates in Europe may be regarded as initiating, in that they tended to pull up rates in the United States and in the Euro-dollar market. Or, increases in European interest rates may be regarded as offsetting, in the sense that higher short-term rates in the United States would have had greater international effects if European countries had not seized the opportunity to tighten domestic credit. On this latter interpretation, American monetary policy, in the form of Operation Nudge, would have been more effective if European countries had made greater use of fiscal policy and less use of monetary policy.

This paper does not present a brief for any of these interpretations, but rather aims to emphasize the interaction and mutual determinateness of short-term capital markets in the major industrial countries. International money market instruments such as Euro-dollar deposits knit national markets closer together. They should, in the long run, considerably reduce interest rate differentials on short-term funds, on commercial loans, and on money generally. The United States has been learning to live with this greater amount of internationalism, but it is not surprising that learning to live in this more interdependent world may create considerable difficulties from time to time.

Rates of Interest on Three-Month Euro-Dollar Deposits in  
London and on Other Investments, 1961-64

(In per cent per annum)

End of Period	Euro-Dollars <sup>1/</sup> (1)	U.S. Bankers' Acceptances <sup>2/</sup> (2)	U.S. Treasury Bills <sup>3/</sup> (3)	U.K. Treasury Bills <sup>4/</sup> (4)	U.K. Local Authorities <sup>5/</sup> (5)	Sterling Forward Discount <sup>6/</sup> (6)	Euro-Sterling <sup>7/</sup> (7)
1961							
Jan.	3.86	2.86	2.23	4.15	4.75	.80	
Feb.	3.60	2.81	2.50	4.40	5.06	.98	
Mar.	3.69	2.88	2.39	4.49	5.50	2.14	6.00
Apr.	3.66	2.78	2.19	4.41	5.38	1.88	5.38
May	3.66	2.68	2.35	4.44	5.38	1.88	5.38
June	3.50	2.75	2.22	4.54	6.12	3.68	7.38
July	3.38	2.75	2.24	6.69	7.56	4.11	7.75
Aug.	3.31	2.88	2.32	6.70	7.32	3.92	7.25
Sept.	3.38	2.75	2.23	6.53	7.56	3.82	7.56
Oct.	3.44	2.75	2.32	5.73	6.62	2.75	6.25
Nov.	3.63	2.75	2.61	5.39	6.25	2.67	6.38
Dec.	3.88	3.00	2.59	5.36	6.68	2.58	6.69
Average	3.58	2.80	2.35	5.24	6.18	2.60	6.60
1962							
Jan.	3.44	3.00	2.71	5.24	6.38	2.49	6.19
Feb.	3.50	3.00	2.66	5.55	6.38	2.66	6.00
Mar.	3.66	3.00	2.72	4.45	5.75	2.04	5.75
Apr.	3.41	3.00	2.74	4.05	5.00	1.51	5.13
May	3.81	2.88	2.70	3.82	4.56	.80	4.31
June	3.75	2.98	2.79	3.92	4.56	.80	4.50
July	3.84	3.13	2.89	3.89	4.56	.62	4.50
Aug.	3.78	3.13	2.84	3.77	4.38	.62	4.38
Sept.	3.94	3.13	2.75	3.64	4.50	.62	4.38
Oct.	4.13	3.00	2.69	3.86	4.25	.36	4.38
Nov.	4.00	3.00	2.80	3.74	4.50	.45	4.44
Dec.	3.94	3.00	2.86	3.72	4.62	.45	4.38
Average	3.77	3.02	2.76	4.14	4.95	1.12	4.86
1963							
Jan.	3.38	3.07	2.91	3.49	4.18	.80	4.44
Feb.	3.50	3.13	2.92	3.43	4.25	.80	4.19
Mar.	3.63	3.13	2.90	3.76	4.50	1.34	4.88
Apr.	3.72	3.13	2.91	3.71	4.50	.80	4.50
May	3.81	3.13	2.92	3.64	4.43	.71	4.50
June	3.88	3.24	2.99	3.70	4.25	.54	4.44
July	4.00	3.41	3.14	3.76	4.31	.36	4.38
Aug.	4.00	3.59	3.32	3.72	4.12	.18	4.13
Sept.	4.19	3.63	3.38	3.68	4.18	.18	4.31
Oct.	4.13	3.63	3.45	3.75	4.18	.27	4.38
Nov.	4.25	3.71	3.52	3.74	4.31	.18	4.38
Dec.	4.25	3.63	3.52	3.72	4.56	.18	4.31
Average	3.90	3.36	3.16	3.68	4.31	.53	4.40
1964							
Jan.	4.06	3.70	3.53	3.72	4.38	.36	4.31
Feb.	4.19	3.75	3.52	4.31	5.12	.72	4.94
Mar.	4.25	3.75	3.55	4.30	5.38	.72	4.88
Apr.	4.19	3.80	3.48	4.30	5.00	.80	4.94
May	4.25	3.75	3.48	4.38	5.00	.80	5.00
June	4.31	3.75	3.48	4.46	5.00	.54	4.75
July	4.25	3.75	3.48	4.65	5.09	.72	4.88
Aug.	4.25	3.75	3.51	4.65	5.00	.63	4.75
Average	4.22	3.75	3.50	4.35	5.00	.66	4.81

<sup>1/</sup> Rate on last working day of month, as reported in Bank of England, Quarterly Bulletin. Data for January and February 1961 were estimated independently.

<sup>2/</sup> Rate in last week of month, Federal Reserve Bulletin.

<sup>3/</sup> Rate on new issues, last week of month, Federal Reserve Bulletin.

<sup>4/</sup> Tenders, last week of month, from Deutsche Bundesbank, Monthly Report.

<sup>5/</sup> Bank of England, Quarterly Bulletin.

<sup>6/</sup> International Monetary Fund, International Financial Statistics. Computed from end-of-month rates (average of buying and selling) for spot and 90-day forward exchange, the resulting percentage being expressed as an annual rate.

<sup>7/</sup> Rate on last working day of month, as reported in Bank of England, Quarterly Bulletin.

Foreign Time Deposits

Beginning October 15, 1962, for a period of three years, maximum interest rates could not be imposed under Regulation Q on time deposits of foreign governments, monetary and financial authorities of foreign governments when acting as such, and international financial institutions of which the United States is a member (Federal Reserve Bulletin, October 1962, pp. 1279-80). Foreign time deposits of member banks of the Federal Reserve System as reported in the Federal Reserve Bulletin (i.e., those of foreign governments and official institutions, central banks, international institutions, banks in foreign countries, and foreign branches of U.S. banks other than the reporting bank) have increased as follows since 1962 (in millions of dollars):

	<u>In New York City</u>	<u>Outside New York City</u>	<u>Total</u>
1962			
Mar.	1,619	618	2,237
June	1,559	642	2,241
Sept.	1,551	665	2,216
Dec.	1,782	739	2,521
1963			
Mar.	1,969	775	2,744
June	2,052	842	2,894
Sept.	2,165	892	3,057
Dec.	2,222	966	3,188
1964			
Mar.	2,457	1,003	3,460
June	2,598	1,072	3,670
Aug.	2,677	1,123	3,800

Foreign time deposits of American banks have increased by three quarters since October 1962. The part of this increase that can be attributed to the removal of interest ceilings under Regulation Q must be much less than this, since time deposits at all commercial banks increased by one third in the same period.