

Money Creation in the Euro-Dollar Market— A Note on Professor Friedman's Views

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Approximately a dozen years have passed since a few European banks began making a market for dollar-denominated deposits, which came to be called the Euro-dollar market. In that short time the market has attained a size of substantially more than \$30 billion and has become the major channel for international short-term capital movements. The market's emergence and rapid expansion have fascinated many observers of the international financial scene, and a large number of analytical studies on its origins, evolution, and functioning have been published in recent years. Yet the market remains shrouded in mystery. As Federal Reserve Board Chairman Martin remarked not long ago, we do not fully understand the "wiring" of the Euro-dollar market. This is not entirely surprising. By any standard the market, though sophisticated, is still quite young. Its growth has been too recent to permit a full grasp of its workings. Moreover, governments and central banks have not yet developed the comprehensive statistical system required for a complete understanding of the intricate linkages between the market and the flow of international funds. While much is being done to fill data gaps, we remain ignorant of many aspects related to the ultimate origin and end use of funds handled by the market. This absence of basic data has given rise to many misunderstandings about its workings.

These misconceptions and many unresolved questions about the nature of the market are now catching the attention of some prominent members of the academic profession. Several have recently tried to supply explanations of what the Euro-dollar market is all about. One of the latest efforts comes from a leading authority on money matters, Professor Milton Friedman of the University of Chicago. In a recent paper,¹ he states that

the "market is the latest example of the mystifying quality of money creation to even the most sophisticated bankers, let alone other businessmen", and notes that it is "almost complete nonsense" to explain the source of Euro-dollar deposits by pointing mainly to United States balance-of-payments deficits, past and present. Euro-dollars, he says, are created in the same way as American banks' deposit liabilities—"their major source is a bookkeeper's pen". He identifies the key to understanding the Euro-dollar market as the fact that "Euro-dollar institutions are part of a fractional reserve banking system", very much like Chicago banks. According to Professor Friedman, the failure to recognize "the magic of fractional reserve banking" is the chief source of misunderstanding about the Euro-dollar market.

Many of Professor Friedman's propositions confuse what is possible with what has happened in fact. Although in theory credit and deposit creation in the United States banking and Euro-dollar systems might be postulated to be similar, in actual practice the forces behind monetary expansion in the two systems differ in many important respects. In Professor Friedman's exposition these differences are passed over lightly or not mentioned at all. Metaphors such as "the magic of fractional reserve banking" and deposit creation by "a bookkeeper's pen", though perhaps useful as expository devices for explaining multiple credit and deposit creation in the United States banking system, do not enhance our understanding of monetary processes in the Euro-dollar market.

Applying the standard textbook treatment of credit and deposit creation to the Euro-dollar system is, of course, tempting. The lenders in the Euro-dollar market are commercial banks and like any system of banks should be capable of multiple credit and deposit expansion. But upon reflection it is apparent that Euro-banks (as we will call banks participating in the Euro-dollar market) bear a much closer resemblance to such financial intermediaries as savings and loan associations. Like these intermediaries, Euro-banks as a group can expect only a small fraction of their loans and investments to return to them as deposits;

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¹ "The Euro-Dollar Market: Some First Principles", *The Morgan Guaranty Survey* (October 1969), page 4 ff.

the deposit leakage from Euro-banks, as from nonbank intermediaries, is massive, while leaks from the American commercial banking system in the form of increases in the nonbank public's holdings of coin and currency are quite limited and fairly predictable. Although Professor Friedman seems to recognize this in principle, he persists in suggesting that a "bookkeeper's pen" is the major source of Euro-dollars as it is of the liabilities of United States banks. One might say that, because of the very large deposit leakages from the Euro-dollar system, the fountain pens of bookkeepers employed by Euro-banks run out of ink very quickly. It is evident that an explanation for the phenomenal rise of Euro-dollar liabilities must lie in monetary processes other than deposit creation in, and by, the Euro-dollar system.

What then specifically are the differences between the deposit expansion processes in the United States banking and Euro-dollar systems? Perhaps the most important difference is this: When an American bank—say, in Chicago—acquires dollars and uses the resulting excess reserves to make new loans, the loan proceeds typically wind up in deposits in other American banks, while it acquires in its turn some of the deposits generated by loans made by other banks. But, when Euro-dollars are loaned by a Euro-bank, the loan proceeds rarely show up as deposits in other Euro-banks. In the United States, as borrowers disburse loan proceeds, the recipients have virtually no choice (and actually no desire) but to redeposit them in the same or another American bank which, as a result of the attendant reserve gains, may find itself in a position to make additional loans and investments. The banks' ability and willingness to expand their asset portfolios depend, of course, also on the public's demand for bank deposits and on asset yields. Yet, in general, net reserve injections into the United States banking system tend to result in successive additions to outstanding bank credit though at a diminishing scale because each bank, as it obtains additional deposits, must retain some portion of its corresponding reserve gains in its required reserves. The distinguishing characteristic of United States banks is that, taken together, they do not lose cash reserves as they expand their outstanding credit and deposits, except to the modest extent that recipients of funds choose to add to their currency holdings rather than to redeposit these funds in their own bank accounts.

Euro-banks as a group, on the other hand, cannot count on recapturing more than a relatively small fraction of their loan proceeds. As Euro-dollar borrowers spend the loan proceeds, the banks participating in the market, taken together, tend to lose most of the dollar balances employed in loan extensions. This becomes immediately

evident if we look at a typical asset portfolio of a Euro-bank. Currently, a very large and often dominant portion of the assets of Euro-banks consists of deposits with United States banks' overseas branches which pass most of the funds on to their head offices. Deposits taken on by the branches for this purpose are rarely returned to the Euro-dollar market, because the head offices of American banks and their borrowers employ virtually all these funds in the United States.

Another sizable portion of a typical Euro-bank's asset portfolio consists of dollar deposit placements in other foreign banks, including banks in Latin America and Asia, which bid for these funds to finance various business transactions. For the most part, these banks utilize Euro-dollar credit lines for financing their customers' payments obligations to the United States and third countries, the loan disbursements in both cases being typically credited to accounts in American rather than in Euro-banks. To an indeterminate extent, the banks sell the dollars to obtain those currencies that their customers require. But, even if the loans are denominated in dollars, the borrowers or their payees often sell the loan proceeds in the foreign exchange market in exchange for local or third-country currencies. Few, if any, of the proceeds of such credits are redeposited by the borrowing banks or their clients in the Euro-dollar market.

The same observation applies to the funds underlying other components of Euro-banks' asset portfolios, such as loans and investments denominated in the banks' own or third currencies. Euro-dollars borrowed for use in foreign currency loan markets or for financing investments in local money markets generally do not reappear in Euro-bank accounts unless the purchaser is one of the central banks that regularly shift reserve gains to the Euro-dollar market. One major characteristic of Euro-dollar banking for which there is no ready analogy in the American banking system is that balances placed in the market are continuously funneled into the foreign exchange market.

It is true that in virtually all Euro-banks' asset portfolios there are loans to European borrowers of the type described by Professor Friedman. In his article, he uses the example of a dollar loan by a London bank to a firm, called U.K. Ltd., which employs the loan proceeds to purchase timber from Russia. Suppose, says Professor Friedman, "Russia wished to hold the proceeds as a dollar deposit" in another bank in London. This could occur if Russia's foreign trade bank acquires these dollars from the timber exporter and then deposits them with one of its London correspondent banks. Similarly, foreign central banks may acquire Euro-dollar loan proceeds in the foreign exchange market and redeposit them in the

Euro-dollar market. On occasion, notably during speculative upheavals, some central banks have been known to purchase sizable balances originating in the Euro-dollar market and to reroute them through their own banking systems into the market. However, these and other examples of recaptures by Euro-banks of Euro-dollar loan proceeds are no more than exceptions to the general rule that in the aggregate only a small fraction of Euro-bank loan proceeds find their way to other Euro-banks.

A full understanding of the difference between the deposit expansion processes of the two systems hinges on the fact that deposit liabilities of American banks serve as the principal means of payment while those of Euro-banks do not. Few Euro-banks provide dollar checking facilities. Only a small proportion of Euro-bank deposits consists of call and overnight deposits. Although these latter resemble demand deposits, their principal function is to provide their owners, virtually all banks, with quickly realizable reserves on which to fall back if they have to make unexpected dollar payments at American banks. Call and overnight deposits held in Euro-banks by nonbanks are quite small. In fact, most of the deposit liabilities of Euro-banks are vis-à-vis other banks rather than nonbanks. Many Euro-banks are essentially time deposit intermediaries in inter-bank deposit markets.

Liabilities of the Chicago banks in Professor Friedman's example, on the other hand, consist for the most part of the public's demand deposits, of which the major function is to serve as a means of payment. Individuals, corporations, financial institutions resident in Chicago, and innumerable out-of-town banks as well as Federal, state, and local government units find it convenient or even necessary to maintain demand deposit accounts with Chicago banks and to hold continuously adequate minimum balances. No similarly compelling reasons for maintaining deposit accounts in Euro-banks exist for individuals and corporations abroad, let alone banks.

Since its demand deposit liabilities serve as a means of payment and to compensate banks for a variety of services, the United States banking system in the aggregate may expect that the deposits created as it expands credit will stay in the system—again excepting some drain into coin and currency holdings of the nonbank public. The size of the American banking system may well remain stable even if the public should prefer to shift deposits to savings banks, savings and loan associations, or other nonbank financial intermediaries which merely rechannel such deposits when acquiring investments and making loans.

Euro-banks in the aggregate, on the other hand, can expect no more than a modest rise in their deposit liabilities as a result of their dollar loans and must rely on

offering more attractive terms to holders of liquid assets than are available elsewhere if they wish to expand their dollar liabilities. United States banks, while by no means immune to the public's preferences regarding the form in which it wishes to hold its assets, are much less dependent for deposit growth on the terms and conditions of the depository facilities that they offer to the public.

Both United States banks and Euro-banks incur deposit liabilities which are a multiple of their cash reserves. In this sense, both systems engage in fractional reserve banking, as pointed out by Professor Friedman. But this characteristic is common to all financial intermediaries, whether United States commercial banks, savings banks, life insurance companies, or Euro-banks. These institutions convert all but a small part of the funds they receive into earning assets. Consequently, their cash reserves are only a fraction of their liabilities. This fact alone does not explain the striking differences in their credit-creating powers. Keeping fractional cash reserves is not the same as engaging in multiple credit expansion.

The major question raised by Professor Friedman that still remains to be explained is how Euro-banks—notwithstanding their inability to recapture as additional deposits more than a small fraction of the proceeds of their loans and investments—have been able to generate in fairly short order very impressive increases in their dollar liabilities. The obvious answer is: By offering more attractive investment facilities and interest rates than provided by money markets and financial institutions in the United States and elsewhere, Euro-banks have been able to divert to themselves the local-currency cash reserves of innumerable banks and nonbanks in many parts of the world. Indeed, in recent years they have drained huge balances from major foreign money and loan markets. In addition, several central banks have for reasons of domestic and international monetary policy placed large parts of their monetary reserves in Euro-banks.

As foreign banks and nonbanks convert their own currencies into dollars in order to be able to make deposits with Euro-banks, and as central banks place monetary reserves in the market, they draw on dollars currently or previously accumulated abroad in consequence of our balance-of-payments deficits. In this particular sense, those who argue that the source of Euro-dollar deposits is "partly U.S. balance-of-payments deficits" and "partly dollar reserves of non-U.S. central banks" are correct.

This argument is valid in another sense: much of the liquidity of banks and nonbanks that has found a haven in the Euro-dollar market can be directly traced to balance-of-payments surpluses abroad, which are a counterpart of our deficits. This is also true of the reserve gains that

a growing number of central banks are depositing in Euro-banks. Other central banks, as they have accumulated dollar balances far in excess of amounts they desire to hold, have shifted these excess reserves to the Euro-dollar market through sales of dollar balances at advantageous swap rates. The buyers have been their own commercial banks which have employed these funds for deposit and loan operations in the Euro-dollar market. In all these cases, a close relationship exists between our balance-

of-payments deficits and additional Euro-dollar deposits.

In summary, the traditional expository devices used in analyzing monetary processes in the United States are ill suited for the task of explaining monetary expansion in the Euro-dollar market. The sources, purposes, and functions of dollar deposits in Chicago banks and Euro-banks have little in common. Dollars deposited in the Euro-dollar market are, except for a small proportion, created by American banks rather than Euro-banks.