

The Eurodollar Conundrum

Transactions in the Eurodollar market can complicate Federal Reserve monetary policy. Most dollars held abroad are not counted in the U.S. target aggregates, but they may substitute for deposits in domestic banks. Unpredictable changes in Eurodollars, then, can reduce the usefulness of currently defined money stocks as targets. The slippage is not too important now, since Eurodollars are relatively small compared with the aggregates. But overseas deposits are growing much faster than domestic money stocks: for example, Eurodollar deposits of U.S. residents not counted in the aggregates increased more than 35 percent in 1981. With this pace of expansion, the Euromarket could in the future become an important snag in monetary control and the problems it poses merit closer attention.

This article looks at the complications the Eurodollar market creates for monetary policy and examines some solutions. The best approaches from a U.S. viewpoint involve international agreements that are hard to achieve. U.S. authorities could take some steps on their own that would reduce the monetary control problem, but these would be less effective or would have disruptive side effects. The options surveyed here do not, by and large, imply changing the central feature of monetary policy: the use of a monetary aggregate as an intermediate target. Current practices in the Eurodollar market, however, do pose a conundrum that is part of a broader problem—the emerging conflicts among policies on monetary control, financial

deregulation and innovation, and the lender-of-last-resort role.¹

The Eurodollar market and monetary control

The availability of Eurodollar deposits provides a way for investors to place funds outside the domestic banking system without limiting its capacity to generate deposits. In this regard, the Euromarket acts like other alternatives to domestic bank deposits, such as repurchase agreements, money market funds, or even commercial paper. These nonbank instruments are avenues for the growth of credit that are not directly constrained by the supply of reserves to U.S. banks. Although Eurodollar deposits are bank liabilities, they produce effects similar to the nonbank instruments because they are generally free from reserve requirements.

Federal Reserve policy seeks to control the growth rates of target monetary aggregates, but most Eurodollars are not counted in these aggregates.² Therefore, growth of Eurobank operations can expand global dollar credit for a given reserves base and convention-

¹ On aspects of this issue, see Betsy Buttrill White, "Monetary Policy Without Regulation Q", this *Quarterly Review* (Winter 1981-82), pages 4-8.

² Overnight Eurodollar deposits held by U.S. nonbank residents at Caribbean branches of U.S. banks are a component of M-2. Term Eurodollars held by U.S. nonbank residents are part of L, a broad liquidity measure. Eurodollars held by foreigners are not included in any aggregate.

ally defined money supply. Insofar as Eurodollars substitute for usual money balances and sustain more spending in the United States, the measured monetary aggregates will show increased velocities. But the extent of the substitution cannot be easily gauged and that is the crux of the monetary control problem: changes in Eurodollar deposits that cause unanticipated velocity swings for the monetary aggregates make the latter less reliable as intermediate policy targets.

The chief determinant of investor preference for Eurodollars is their risk-adjusted interest rate differential against domestic deposits. Eurobanks operate on a narrower margin between their cost of funds and their return on loans than do domestic banks—and hence can offer depositors higher yields—because they are free from certain costs. Specifically, Eurobanks are free from reserve requirements and are not prohibited from offering very short-dated time deposits.

The Eurodollar sector is linked to the domestic banking market through arbitrage: banks will fund at the lower cost, thereby tending to equate the costs of funds in both sectors. Under “normal” market conditions, domestic rates adjusted for reserve requirements (and other relevant costs, such as deposit insurance) will just about equal Eurorates.³ As a corollary of such arbitrage, depositors get most of the benefit of the lower operating margin in the form of higher Euro-market rates. This yield advantage for Eurodollars widens in basis points when the level of dollar interest rates rises.

Such behavior meshes with the incentives banks face. If U.S. banks have to hold more noninterest-bearing reserves than they desire, they have a strong motive to encourage shifts of funds to reserve-free Eurodeposits. In a competitive market, then, banks will price Eurodeposits as attractively as they can. This is why most of the gain is passed on to depositors as a higher yield on Eurodollars.⁴

Offsetting the yield gain is a higher risk that depositors assign to Eurodollars. Three principal elements make up this risk: (1) Eurodollar deposits are not insured; (2) they are booked at banking offices that do

not have direct access to the Federal Reserve discount window, and (3) they are outside the legal jurisdiction of the United States. The element of country risk in the last feature can cut two ways. While many depositors will view the United States as a relatively low country risk, others may prefer to hold dollars outside the reach of American law. These risk features are a chief reason why domestic banking system deposits are held in the face of a yield disadvantage.⁵

In a market without constraints on flows of funds, investors would be expected to shift deposits into the Euromarket until the risk-adjusted yields in the two sectors are equated. Then there would be no clear reason for one sector to grow more rapidly than the other. Nevertheless, the removal of U.S. capital controls in 1974 did not get rid of the gap in growth rates between the overseas and domestic dollar banking sectors. Since then, the Eurodollar market has consistently grown much faster than the domestic aggregates (table). This rapid growth has raised concerns that the Eurodollar market may act to limit the effectiveness of U.S. monetary policy in the control of inflation.

Growth of the market

Increased demands for Euromarket credit, particularly by sovereign borrowers for balance-of-payments financing, are frequently cited as the driving force behind the expansion of the market. What complicates monetary policy, however, is the growth of the deposit side of the market. Credit extensions in the Euromarket can be funded up to a point without new deposits by interbank borrowings from domestic banking systems—for example, the overseas branch of a U.S. bank may make a Eurodollar loan and fund it with borrowings from its head office. Although this process—a kind of “pure” intermediation—can have important implications for the distribution of bank lending, it does not automatically produce growth on the deposit side of the Euromarket.

What factors, then, account for the relatively high rate of Eurodollar deposit growth since 1974? There is no simple satisfactory explanation, but at least three ideas that focus on important economic trends of the post-1974 period merit some attention.⁶ The first of

³ The complete arbitrage conditions are more complicated, but they show that in an efficiently arbitrated market the differential between Eurorates and domestic rates adjusted for reserves will be small. A more elaborate analysis of arbitrage conditions appears in R. B. Johnston, “Some Aspects of the Determination of Euro-currency Interest Rates”, *Bank of England Quarterly Bulletin* (March 1979).

⁴ Federal Reserve pronouncements, the so-called Martin-Burns letters, seek to dissuade U.S. banks from soliciting Eurodollar deposits from domestic residents through their overseas branches. Such cautions probably have limited the marketing efforts of some banks. Nevertheless, recent growth of resident Eurodollar deposits has been strong both at foreign banks and at overseas branches of U.S. banks.

⁵ Of course, demand and small time deposits are not available in the Euromarket. And even an unconstrained risk-neutral large depositor may hold a domestic certificate of deposit because of its superior liquidity, compared with a Eurodollar time deposit or a Eurodollar certificate of deposit.

⁶ The lengthy and disputatious literature about the size of the Eurodollar multiplier does not shed much light on the problem of why the market grows so fast. If the multiplier is a stable parameter, the growth of the market must still be explained by whatever determines the initial deposit inflows. If the multiplier is not stable, as appears to be the case, it is best to drop that framework altogether.

Growth Rates of Eurodollar Deposits and U.S. Monetary Aggregates

Percentage change over period, at annual rates

| Market sector | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 (Jan.-Sept) | 1981 |
|----------------------------------|------|------|------|------|------|------|------------------|------|
| Eurodollar deposits* | | | | | | | | |
| Gross | 28.9 | 38.0 | 24.3 | 19.6 | 24.6 | 27.4 | 27.4 | 20.2 |
| Net | † | 21.8 | 30.9 | 17.1 | 24.6 | 29.1 | 23.5 | 22.6 |
| Nonbank | 33.2 | 7.4 | 23.6 | 17.5 | 39.0 | 35.7 | 27.3 | 26.8 |
| U.S. monetary aggregates‡ | | | | | | | | |
| M-1 | 4.4 | 4.8 | 6.6 | 8.0 | 8.2 | 7.1 | 6.5 | 2.2 |
| M-2 | 5.6 | 12.7 | 14.1 | 10.9 | 8.3 | 8.2 | 9.0 | 9.2 |
| M-3 | 8.5 | 9.6 | 12.0 | 12.4 | 11.4 | 9.3 | 10.3 | 10.8 |
| L | 9.3 | 10.2 | 11.3 | 12.7 | 12.6 | 11.1 | 10.1 | 10.7 |

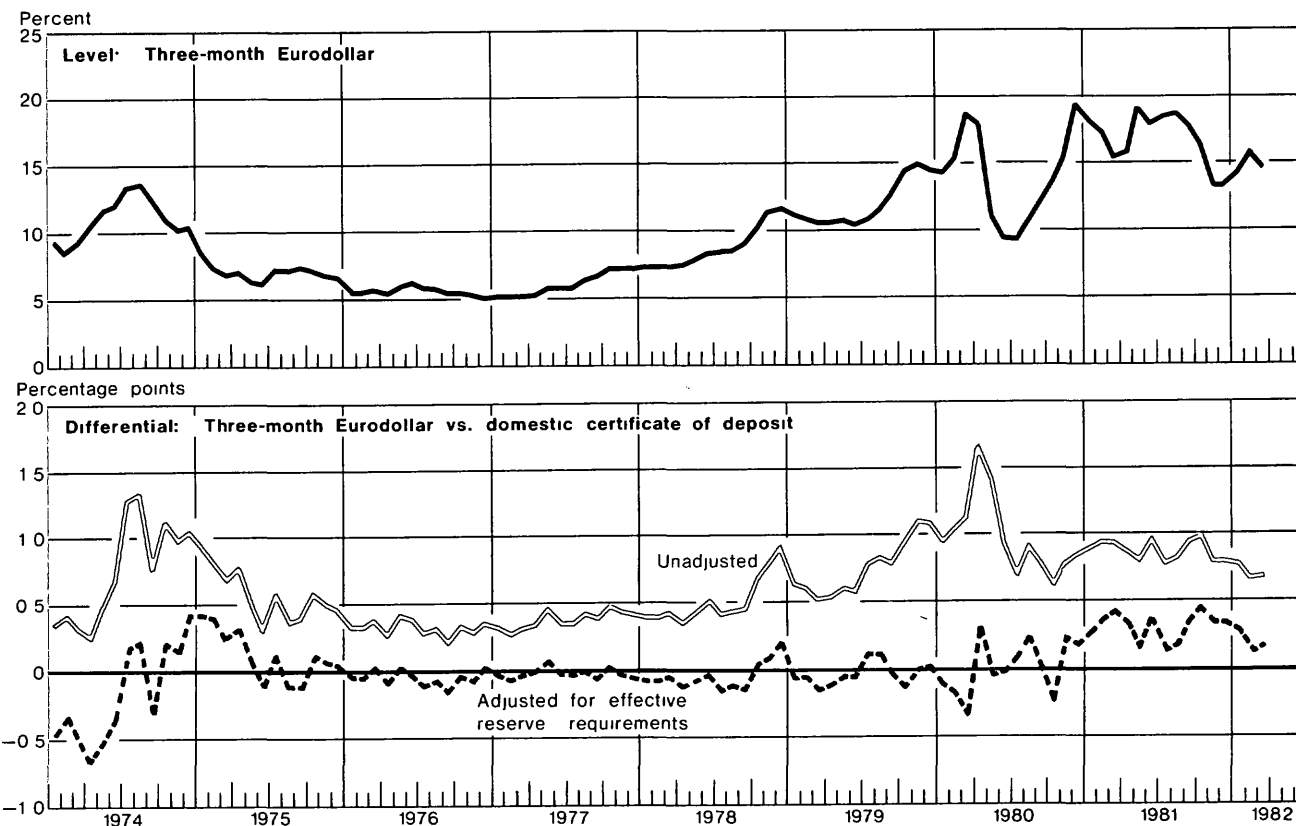
* Percentage changes in the outstanding end-of-period levels.

† Not available

‡ Percentage changes in the monthly average levels for the last month of the period.

Chart 1

Eurodollar Interest Rates



these explanations, and the most important, hinges on factors that have changed the risk-adjusted rate differential between domestic deposits and Eurodeposits; the other two look to shifts in international payments patterns that altered the worldwide distribution of financial wealth.

Changes in the risk-adjusted rate differential. The risk-adjusted interest rate differential between Eurodollar deposits and domestic bank deposits is the most important element affecting depositor decisions. Two developments have made this differential move in favor of Eurodollar deposits in recent years. The first has been the trend increase in the level of dollar interest rates. This resulted in an increased basis points advantage for Eurodollar deposits (Chart 1). If the perceived risk differential in favor of domestic deposits was unchanged in terms of basis points, an incentive emerged to shift funds into the Euromarket.

On top of this, however, the perceived riskiness of Eurodeposits has almost certainly declined over time. In part, the very success of the market brought this about. Since 1974 no crisis of confidence on a par with the Herstatt affair has occurred. Following the Herstatt episode, bank managements upgraded their internal controls and authorities in many countries improved their monitoring of banking activities and tightened their prudential supervision. Despite repeated warnings from many quarters about the incapacity of the market to handle the volume of recycling related to higher oil prices, no specific incident can be pointed to as a failure of an institution to function. As a result, the Euromarket was seen as more robust and less of a risk to depositors.

Enhancing this perception were widely held views about the extent of agreement among major central banks on lender-of-last-resort roles and supervisory responsibilities. In September 1974, following the Franklin National and Herstatt troubles, the central bank governors of the major countries meeting at the Bank for International Settlements (BIS) in Basel stated they were satisfied that means exist to provide liquidity assistance to the Euromarket should the need arise.

Later, in the autumn of 1975, the Committee on Banking Regulations and Supervisory Practices presented to the BIS governors a set of guidelines on the division of supervisory obligations among national authorities, widely known as the Concordat.⁷ These guidelines were more detailed than the Basel declara-

tion on lender-of-last-resort activity. They placed the primary burden for supervising the liquidity positions of Eurobanks with the host authorities. The duty of supervising the solvency position of subsidiaries and joint ventures was also placed chiefly, but not exclusively, with the host authorities, while that for branches was held to belong clearly to the home authority of the parent banks.

The Concordat covers just supervisory duties; the Basel declaration is the only public notice of any international agreement on emergency assistance. Nevertheless, together they had a reassuring effect on market views about the extent of central bank cooperation regarding support for the Euromarket. This, in turn, contributed to the continuing erosion of perceived risks in the Euromarket, prompting more deposits and faster growth.

U.S. balance-of-payments deficits. A view that has achieved some standing is that deficits in the U.S. balance of payments have fed the growth of the Euromarket since 1974. The line of argument here is often hard to follow. In some versions, the U.S. deficit on the official reserves transactions basis, roughly the total of current account and private capital transactions, has been cited as a cause of Euromarket expansion. U.S. payments deficits and Eurodollar growth may be observed together, but a logical case for a causal link is absent. A simple example shows why. A Eurobank may make a dollar loan to a foreigner and fund it by borrowings made in or by deposits that have been induced to shift from the United States. If the loan substitutes for borrowing the foreigner would have done anyway in his domestic market, what shows up is a net private capital outflow in the U.S. accounts and expansion in the Euromarket.⁸ But the former cannot be said to cause the latter. Indeed, the Euromarket may play a purely intermediary role, as in a case where the foreigner could have borrowed the dollars directly within the United States. Eurodollar transactions and U.S. capital flows are both set by a complex interaction of borrower and lender preferences worldwide.

A variant of the argument looks to deficits on the U.S. current account instead of the overall balance of payments. The factors that determine the current account picture—international competitiveness and relative business cycles, for example—are independent of

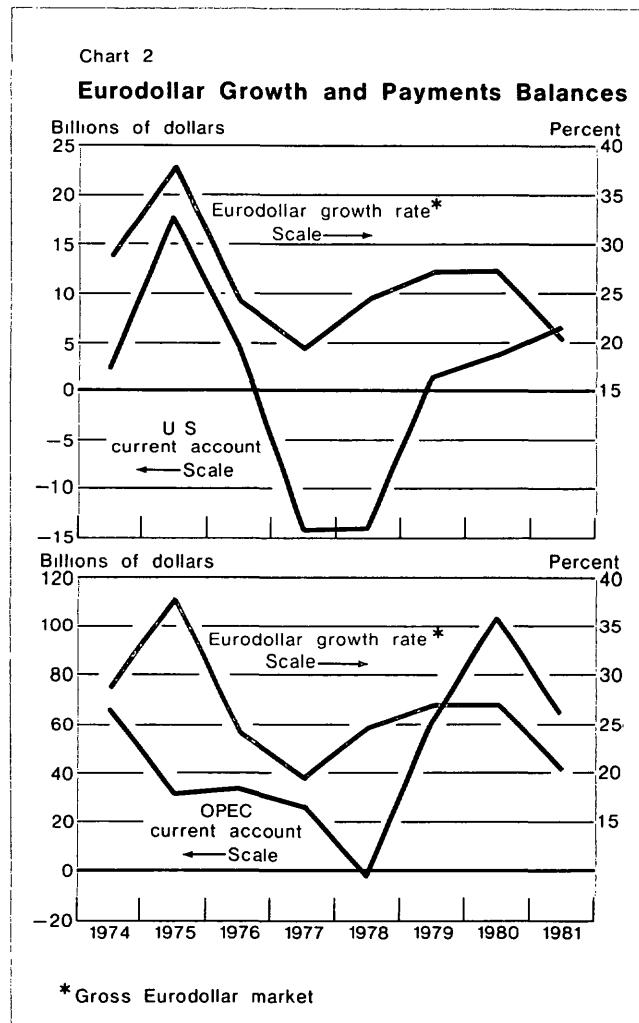
⁷ See Peter Cooke, "Developments in Cooperation Among Banking Supervisory Authorities", presented at a Conference on the Internationalization of Capital Markets, International Faculty for Corporate and Capital Market Law, New York City, March 19-21, 1981.

⁸ This example assumes that the central bank of the foreign country intervenes in the exchange market to acquire the dollars as reserves. Under a purely floating exchange rate, of course, no deficit on the official reserves transactions account would appear, since there would be an offsetting current account or private capital inflow to the United States.

Euromarket transactions. U.S. current account deficits shift financial wealth from U.S. residents to the rest of the world. Since changes in financial wealth affect the demand for all assets, including Eurodollars, current account deficits can shift up the demand for Eurodollars, but only if foreigners always have a greater preference for Eurodollar deposits, at the margin, than U.S. residents. But there is no theoretical reason to assume this kind of systematic tilt in asset preferences. Some factors, such as convenience, will work in favor of foreigners holding dollar deposits in overseas banks, while others, such as the Euromarket's lack of direct access to the Federal Reserve discount window, will cut the other way. Whether a shift of wealth arising from U.S. current account deficits was a force behind high Eurodollar growth is an empirical question that can be answered correctly only by a detailed model of worldwide portfolio behavior. A rough look at the numbers, however, shows that the effect, if it exists, is too subtle to be assigned much importance. In fact, the United States had a tiny cumulative current account surplus over the period 1974-80. Furthermore, annual swings in the deficit appear to be correlated with a broad measure of Eurodollar growth in just the opposite direction (Chart 2).

Oil-exporter surpluses. The most striking international wealth transfer of the period was the growth of oil-exporting-country current account surpluses. Here again the pattern of current accounts would have affected Euromarket growth only if oil-exporting countries had a stronger preference for Eurodollars than did oil-importing countries. This presumption, however, is not unreasonable. Many commentators have depicted the financial behavior of the oil exporters as very cautious, at least in the initial years of large surplus, and marked by a desire for investments with a high degree of liquidity. Such preferences would favor the Eurodollar banking sector, which offers time deposits of very short maturities not available from U.S. banks. Thus, a shift of wealth to a group of countries with a relatively high liquidity preference could have plausibly fueled Eurodollar growth. Member states of the Organization of Petroleum Exporting Countries (OPEC) had a total cumulative current account surplus between 1974 and 1980 of nearly \$325 billion. But, as with the U.S. current account, yearly changes in the OPEC surplus do not appear to match up closely with variations in the Eurodollar growth rate (Chart 2).

In summary, different factors have at various times contributed to relatively high Eurodollar growth. Certainly, a major factor behind sustained high growth of the market in recent years has been the rise in the



risk-adjusted yield advantage for overseas deposits relative to domestic deposits. This reflects the combined effects of trend increases in the level of dollar interest rates and trend reductions of the perceived riskiness of Euromarket deposits. But the ballooning of the OPEC surplus may have played a particularly important role in 1974-75, a time when dollar interest rates were declining and perceptions of risk in the Euromarket were aggravated.

What can be done?

If the high rate of Eurodollar deposit growth poses a problem for a policy of monetary aggregates targeting, what steps can be taken to address the problem? The range of policy options covers three broad classes: (1) do nothing; (2) take account of Eurodollars in the monetary targeting process; (3) put the Euro-

dollar and domestic banking sectors on a more equal footing by measures that change the risk-adjusted rate differential.

Do nothing

The prescription that policymakers can safely ignore the Eurodollar market rests on the view that the size of the problem it poses is small and is likely to remain so in the near future. As a percentage of M-3—the aggregate that includes large domestic bank time deposits, the principal alternative to Eurodollars—overseas dollar deposits held by U.S. residents amount to only about 3 percent (Chart 3). And, as domestic reserve requirements on nonpersonal time deposits fall to 3 percent under the provisions of the Monetary Control Act, Eurodollars will have much less of an edge in the future.

The counterpoint to that view is that Eurodollars are fast becoming a big problem. In fact, focusing on a broader Eurodollar measure—those held by all nonbanks worldwide—reveals that overseas dollar deposits exceed 10 percent of M-3 (although most observers think that such a measure overstates the amount of Eurodollars that should be compared with domestic aggregates).

The Euromarket is becoming a more active and significant alternative to domestic banking deposits. Between December 1980 and December 1981, term Eurodollar deposits held by domestic nonbank residents other than money market funds grew at an annual rate of over 35 percent to \$66.2 billion. Should these trends continue, the Eurodollar market will grow to a significant size relative to M-3 in a number of years. While reduction of domestic reserve requirements on nonpersonal time deposits will work to slow this process, it will not remove all incentives for Euromarket growth. A 3 percent reserve requirement can still result in a significant yield differential at current levels of interest rates. Additionally, a large part of Eurodollar deposits is for very short-dated maturities (less than fourteen days) not allowable for domestic deposits. These short-term Eurodollars may continue to substitute to some extent for domestic transactions accounts. There are, therefore, reasons not to neglect Eurodollars in setting monetary policy.

Take account of Eurodollars

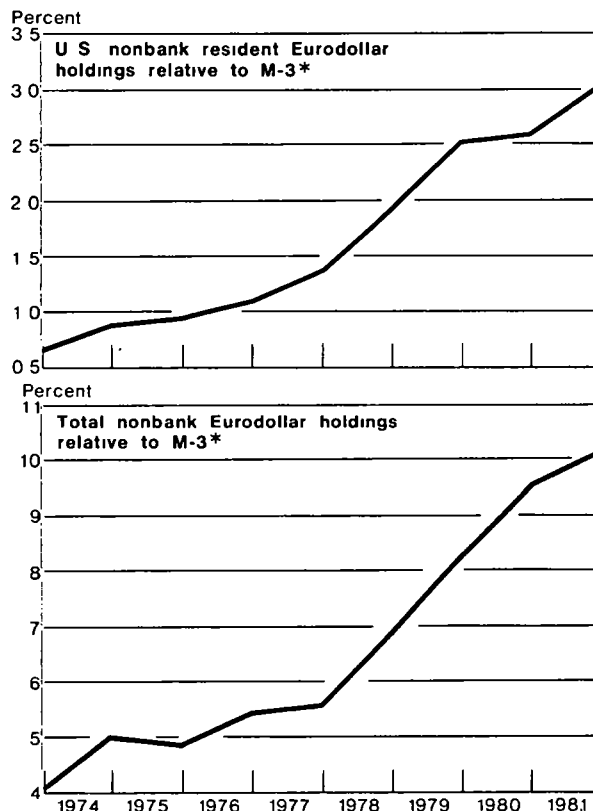
The second policy option is to take account of Eurodollar developments in some way. This can be done formally or informally. To account formally for changes in Eurodollars in setting policy means revising the target monetary aggregates to include some classes of overseas deposits. The problem with this approach is a basic one: economic analysis at present cannot

answer very well what shares of Eurodollar holdings by domestic residents or by foreigners should be counted or to which aggregates they should be added.

Using a simple criterion to construct a monetary aggregate can be misleading. The location of deposits, for example, is frequently irrelevant to the purposes the deposits serve. U.S. residents may hold dollars overseas that are closely connected with their domestic business operations. While a residence-of-depositor rule may appear more satisfying, it also has some drawbacks. For example, some of the Eurodollars held by foreigners may support their transactions within the United States. Furthermore, these simple rules do not address the question of how many Euro-

Chart 3

Eurodollars and U.S. Monetary Aggregates



*Eurodollar measure excludes domestic nonbank holdings of overnight Eurodollars and Eurodollars held by money market mutual funds, these items are counted directly or indirectly in M-3

dollars should be put in an M-1 aggregate, how many in M-2, and so forth.

Statistical evidence in this area is limited, but one study has been done using a familiar methodology in research on the empirical definition of money.⁹ It compared the out-of-sample forecasting properties of standard money demand equations and reduced form income-money relations fitted to different definitions of money, including and excluding various categories of Eurodollar deposits. The findings are mildly consistent with the inclusion in the narrow monetary aggregate of some part of Eurodollars—specifically, overnight deposits booked anywhere in the world held by U.S. residents. The methodology itself, however, does not determine what proportion of Eurodollars should be added to the monetary aggregates. The study makes the interesting point that, once some account has been taken of U.S. resident Eurodollar holdings, the inclusion of Eurodollars held by foreigners does not improve the statistical or forecasting properties of the money demand equation. On the question of which categories of and how many Eurodollars should be put in the broader (M-3) aggregate, the results are inconclusive.

An informal way of taking account of Eurodollars is to study their behavior and make changes when needed, for example, by altering the speed of adjustment to monetary target paths or even by changing the target ranges themselves. One can argue that the scope for this kind of adjustment currently exists, but it is applied only rarely and in an uneven way. An informal approach is really useful only if it includes a more systematic procedure to analyze Eurodollar developments when constructing monetary policy options.

Both the formal and informal approaches share a serious drawback: most data are not available on a timely basis. In fact, this was a major reason why only selected Eurodollar items were put in the new aggregates. For the most complete information series—the BIS Eurocurrency statistics—the lag ranges from three to six months. This lack of timely data has naturally led to considering options that would tend to put the Eurodollar and domestic banking sectors on a more equal footing. Such approaches would seek to change the relative cost structure of the two sectors in a way that would reduce or eliminate the incentive to shift funds into the Euromarket.

Put the sectors on an equal footing

Measures that seek to put the sectors on an equal footing are especially useful from the perspective of

U.S. monetary control goals. If investors do not have much reason to hold deposits in one sector rather than the other, the two should grow at similar rates. Therefore, the elements left out of the aggregates will tend to grow at the same rate as those which are included and the problem of how many Eurodollars to count in a “true” money measure is lessened¹⁰

Putting the sectors on an equal footing involves changing the factors behind the risk-adjusted yield differential. This can be done in two ways: (a) closing the gap between the margins on which banks in the two sectors operate and thereby making the rates on deposits converge or (b) affecting the perceived relative risk of the two sectors.

The first way includes the larger number of options. Some actions can even up the two sectors by adjusting costs in the domestic market, and U.S. authorities can take these steps unilaterally.

Eliminate or further reduce domestic reserve requirements. This step goes to the heart of the matter, since getting rid of reserve requirements on non-personal time deposits at domestic banks would ease some of the monetary control problems posed by the Euromarket. Some problems would remain, however, as a large share of Eurodeposits is very short dated and this would still be a potential substitute for domestic transactions accounts.

Pay interest on the required reserves of domestic banks. Instead of eliminating reserve requirements, the cost disadvantage they impose on domestic banks could be reduced through interest payments on required reserves. The closer such payments are to market rates, the smaller will be the yield difference between Eurodollars and domestic deposits. However, this option is at present excluded under the conditions of the Monetary Control Act.

Other policy steps are possible that would even up the two sectors by changing cost structures in the Euromarket.

Impose reserve requirements on Euromarket deposits. In principle, this could be done unilaterally: the Federal Reserve could impose reserve requirements on Eurodeposits at overseas branches of U.S. banks. Such a move would be largely ineffective since deposits would be shifted to other Eurobanks. Non-

⁹ Laurie Goodman, “Eurodollars and the U.S. Money Supply”, Federal Reserve Bank of New York Research Paper No. 8001 (January 1980)

¹⁰ That problem is eliminated only if Eurodollars as a whole substitute for M-3 as a whole. If Eurodollars substitute only for the domestic large time deposit component of M-3 and if that component is growing more rapidly than other parts of M-3, the weight given to the fast-growing component in the broad aggregate will depend on how many Eurodollars are included.

dollar Eurobanks may not be willing to take over the entire dollar book of U.S. branches immediately. But in the longer run the U.S. banking system's loss of market share would be enormous and little effect would occur on the total market.

The alternative to unilateral actions is to negotiate an agreement among the major international banking countries (the Group of Ten and Switzerland) to impose reserve requirements on the Eurodeposits of their banking systems worldwide. This was proposed by the United States at the BIS in 1980 but was not adopted. A major problem impeding agreement was the imbalance that such an agreement would create between the domestic and Euromarket operations of foreign banking systems. Putting reserve requirements on Eurodollar deposits only would not be sufficient. These could be avoided by booking, say, a reserve-free Euromark deposit while at the same time selling the marks forward against dollars, thereby creating the equivalent of a reserve-free Eurodollar deposit. These redenomination incentives can be stopped only by putting reserve requirements on Eurodeposits in all currencies. To do this, however, would create complications for foreign countries that do not use reserve requirements on their domestic banks but would wind up with them on the Eurodeposits of their home currency. The impasse stems from differences among countries in the techniques used for monetary control and domestic financial regulation. Breaking the impasse would seem to require a closer harmonization of national banking systems.

Impose capital-assets ratios. That dilemma led to suggestions that perhaps an agreement on Euromarket regulation could be reached by focusing on capital-assets ratios. This approach is also full of pitfalls. A basic one is that capital-assets ratios serve principally as a prudential yardstick for supervision purposes, not as a monetary policy tool. They can limit the growth of banking system balance sheets, but they are not a very flexible instrument for monetary policy when compared with open market operations that affect reserves availability.

And there are other problems. Definitions of acceptable bank capital vary across countries, and the capital-assets ratios on which different national banking systems operate span a wide range. Unlike the United States, many foreign banking systems have a large public-sector element, which raises a question of whether infusions of new capital would be made on an equivalent commercial basis in all countries. Finally, under a system where capital is the effective constraint on balance-sheet growth, banks might face an incentive to add to earnings by taking on riskier loans, since

institutions that show higher earnings growth might be able to issue new equity at higher price-earnings ratios.

Impose a mixed regulation system. These difficulties bring up the question of whether agreement could be reached on a mixed system of regulations where some countries place reserve requirements on the Euro-operations of their banking systems and others impose capital-assets ratios. Can such a system be designed that would limit the growth of the Euromarket but not distort Euromarket shares among different banking systems simply because different types of regulations are used? One theoretical study answers yes.¹¹ At any time there are levels of reserve requirements and of capital-assets ratios that do not distort market shares. However, the relative value of those ratios must be changed continually in response to changes in the cost of capital to avoid a distortion of market shares. Such a system would be complicated to design and run, perhaps too complicated to be practical. If interest payments on required reserves were allowable, variations in that rate of interest could be used as a tool to keep an equitable cost structure in the face of varying capital costs. Of course, such a mechanism runs up against the familiar objections to paying interest on reserves.

Even an international agreement, of whatever design, is subject to the criticism that nonagreeing banking systems would be at an advantage and would take over business. However, if an agreement were broadly enough based to cover the major international banking countries and if lender-of-last-resort assistance were not available to nonagreeing banking systems (as would surely be the case), the capability of those banks to take over any significant part of the market could be limited. Highly capitalized banks operating outside the agreeing countries would be the biggest loophole

Increase the perceived risk of the Euromarket. A final approach would be to increase the perceived relative riskiness of the Euromarket, making Eurodollar deposits less attractive for any given yield differential. In practice, this would involve limiting the guarantee of lender-of-last-resort assistance to the Euromarket in a way that would have a convincing effect on market views of risk. Obviously, such a step is drastic. Limiting lender-of-last-resort support for the Euromarket

¹¹ Stephen E. Usher, "A Mixed Policy Approach to Euromarket Regulation", Federal Reserve Bank of New York Research Paper No. 8002 (February 1980)

would have a large one-time effect on perceptions and would shrink the size of the market. It would not, however, clearly improve the monetary control problem stemming from shifts of funds between the overseas and domestic sectors.

Conclusion

All the options considered have drawbacks as well as points in their favor. What, then, is the most sensible line to follow? No single approach will provide an entirely satisfactory solution; it is best to try to make small progress on many fronts. From the U.S. perspective, an international agreement on Eurocurrency reserve requirements remains an attractive approach to a solution of the monetary control problem. But, to be practical, such an agreement would have to be structured more carefully with differences among national banking systems in mind. It would be useful to study further the prospects for an international agreement on a mixed system of regulations to see if a relatively simple arrangement could be worked out that would be roughly equitable. A reason, though not the only one, for the failure to agree on Euromarket reserve requirements was that the proposal was

geared principally to U.S. concerns. Trying to design an agreement that would have short-run monetary control benefits for the United States while addressing the interests and concerns of other countries would be helpful. It would build on the basically sympathetic view that some foreign authorities have of an international agreement on Euromarket regulation.

Other avenues are open. Reserve requirements on domestic nonpersonal time deposits could be phased out when appropriate. Taking systematic account of Euromarket developments could play a greater role when deciding whether to aim high or low in the monetary aggregates target ranges. Clearly, work should continue on trying to determine the extent to which Eurodollars substitute for domestic instruments counted in the aggregates. Finally, the somewhat trying multilateral efforts to obtain better and more timely data should go on. While this item may be the least controversial, it is not the least important, since the inadequacies of current data prevent specific answers to many of the important empirical questions about the role that Eurodollars play and limit the extent to which changes in the Euromarket can be factored into short-run policy decisions.

Edward J. Frydl