

in interest rates. On the whole, variations in foreign private holdings appear to have corresponded more closely to changes in the absolute yield on U.S. Treasury bills than to changes in the covered differential between United States and United Kingdom bills. This fact suggests that fluctuations in foreign private holdings may have occurred in response to changes in conditions in the U.S. market relative to those in a number of foreign money markets, rather than solely in response to changes between New York and London. This conclusion is in accord with other evidence; the reports of the Bundesbank indicate that German bank funds were repatriated from abroad in mid-1960 following increased monetary restraint in that country.

However, it is also clear that factors other than interest-rate movements affected foreign private dollar holdings during the periods in the last half of 1960; for example, speculative capital movements undoubtedly contributed to the decline in foreign private dollar holdings. Thus one should not expect to find an exceptionally close relationship between movements in an aggregate of foreign private holdings and a single interest rate or rate differential. On the whole, there seems to be sufficient correspondence between movements in rates and foreign private holdings to provide support for the thesis that interest-rate movements (or factors producing these movements) have affected such holdings.²⁰

The extent of the influence of interest-rate movements or other money-market developments cannot be estimated with accuracy, but the amplitude of the fluctuations in the deviations of foreign private holdings from trend can assist in supplying some indication. As shown in chart 2 [not printed], the amplitude of fluctuations during the period 1958-60 has been one of the magnitude of \$0.3 billion to \$0.5 billion, depending on the series used. These figures suggest that foreign private holdings might decrease by amounts ranging from \$0.6 billion to \$1 billion from a peak associated with high U.S. interest rates to a trough associated with low rates.

The actual decline in foreign holdings (as distinct from the changes in deviations from trend) which began in mid-1960 continued early in 1961 (not shown on the chart) and, through February, totaled \$0.8 billion. However, a substantial portion of the decline could have been accounted for by speculative movements of funds connected with possible changes in foreign-exchange rates, and the entire decrease clearly cannot be attributable to changes in relative money-market conditions.

Correspondingly, a part of the \$1 billion increase in foreign private dollar holdings that occurred from late 1958 to early 1960 represented increased working balances following the establishment of convertibility by major European countries. The opportunities for employing such working balances profitably have been substantially enlarged by the development of the Euro-dollar market.²¹ A European bank accepting deposits denominated in U.S. dollars (Euro-dollars) would have a U.S. dollar asset as a counterpart to its dollar liability, and a part of the rise in foreign bank holdings of dollars in 1959 undoubtedly represented such dollar assets. European banks attracted Euro-dollar deposits by paying interest (often in excess of rates payable on time deposits in U.S. banks), and they have used the deposit claims on U.S. banks which were thus acquired for various types of financing, especially foreign trade. So long as attractive opportunities exist for employing Euro-dollar funds for dollar financing, these funds are relatively unlikely to be shifted abroad in response to changes in money-market rates.

Thus less than \$1 billion of the fluctuations between peak and trough in foreign private dollar holdings can be attributed to interest-rate movements. This figure, as an outside limit, may be compared with total foreign private dollar holdings (excluding Canada) of \$6 billion at the 1960 peak. A shift abroad of up to one-sixth of foreign private dollar holdings would lead to an increased demand for monetary gold by foreign central banks of somewhat less than the amount of funds shifted, unless the funds moved to those countries that take all reserve gains in gold, and this apparently was not the case in 1960. The gold outflow associated with such a shift might therefore be quite small, relative to

²⁰ A coefficient of correlation of about 0.8 was obtained from a correlation of U.S. Treasury bill rates (as the independent variable) with adjusted deviations from trend of foreign private holdings lagged one-quarter of a year. Calculations involving other series produced smaller coefficients.

²¹ See Alan Holmes and Fred Klopstock, "The Market for Dollar Deposits in Europe," Monthly Review, Federal Reserve Bank of New York, November 1960.