end of 1958. Since then, interest arbitrage transactions—between the United States and foreign countries as well as among foreign countries—have occasionally reached substantial amounts. These consist of the investment abroad of liquid balances to take advantage of higher interest rates than those prevailing in the home market. The interest arbitrager, unless he is confident of being able to avoid an exchange loss when he decides to repatriate his capital, ordinarily will cover the exchange risk associated with his transaction by buying back his own currency in the forward exchange market. The forward "hedge" in this so-called covered interest arbitrage normally involves a cost that reduces, and could eliminate, the uncovered interest arbitrage incentive. On the other hand, the forward hedge might actually offer an additional incentive to engage in arbitrage operations. Indeed, if the forward exchange rate premium on the currency of a low-interest-rate country is large enough, this could even induce a flow of covered capital from a high-interest-rate to the low-interest-rate country, because the interest loss would then be more than offset by the exchange rate profit.

The specific interest rate relationships that induce investors to move short-term funds abroad are not readily identifiable, but they obviously are not restricted to the interest rates on Treasury bills alone. A few countries now have money markets of significant size, where numerous short-term instruents—Treasury bills, time deposit facilities, various types of commercial paper, and in some cases local government obligations—are available for investment. In addition, the Euro-dollar market, in which European as well as Canadian banks take an active part, is widely used for interest arbitrage operations. There is thus a broad international constellation of interest rates and forward exchange discounts and premiums which influence the potential

arbitrager.

Interest arbitrage operations of U.S. corporations have become more common in recent years, though the number of companies engaged in these transactions has remained relatively small. Partly because the availability and liquidity of foreign short-term securities are generally less than in this country, most U.S.

corporations have been reluctant to engage in interest arbitrage.

Speculative capital flows occur when a change in the exchange rate of one or another currency is anticipated. These flows may include outright purchases of the currency that is expected to appreciate or sales of the currency that is expected to depreciate, but they also take the form of so-called leads and lags, which involve the acceleration or deferment of payments or receipts. When a currency is under specualtive attack, commercial interests will try to postpone payments in that currency because, in the event of a devaluation, the cost in terms of their own currency would be reduced. Furthermore, the residents of the country with the weak currency will attempt to pay more rapidly or even to prepay debts in foreign currencies, while trying to prolong the maturity of their claims in foreign currencies by renewing loans or letting credits accumulate. The net result will be a reduction in the country's receipts from abroad and an increase in the net outflow of short-term capital. If, on the other hand, the speculation is motivated by the expectation of an exchange rate appreciation, the leads and lags will of course shift in favor of the strong currency.

## INFLUENCE OF DEMAND, SUPPLY, AND COST FACTORS

The determinants of short-term capital movements may be analyzed from the standpoint of the borrowers or the lenders, in terms of demand or supply factors. In some cases, demand factors are predominant and the borrowers are much more the active agents, in the sense that they actually initiate the transactions. In other cases the initiative may largely rest with the suppliers of funds, and the lenders may actively seek to lend or invest abroad, with or without active participation by the borrowers or the sellers of credit instruments. Similarly, interest rates, which are a cost to the borrower and income to the lender, may exert a determining influence on some transactions and hardly any influence on others.

For most types of capital transfers that are in the nature of "accommodating" finance, the impetus for the transactions is more likely to come from the borrowers than from the lenders. Each borrower must weigh his financial needs

<sup>&</sup>lt;sup>2</sup> See Alan R. Holmes and Fred H. Klopstock, "The Market for Dollar Deposits in Europe," Monthly Review, November 1960, pp. 197-202.