Real Exchange Rates

The exchange rates reported in newspapers' financial sections aren’t real. Although they do show the recent price of one currency, say U.S. dollars, in terms of another; say Japanese yen, they are not adjusted for domestic and foreign price levels. Therefore, they reveal little about international competitiveness.

Three economic variables that directly determine the U.S. competitive position in relation to a particular trading partner are the exchange rate, the inflation rate at home, and the inflation rate abroad. In time, exchange-rate movements offset inflation differentials. The dollar depreciates (or appreciates) against another currency when the U.S. inflation rate exceeds (or falls short of) the other country’s inflation rate. If the offset were complete, competitiveness would be unaffected and the real exchange rate, which combines the influence of all three variables, would be unchanged. When movements in the nominal exchange rate do not counterbalance changes in the inflation differential exactly, a real appreciation or depreciation occurs. Real appreciations weaken a nation’s competitive position; real depreciations strengthen it.

Data for the U.S., Germany, and Japan reveal some correlation between exchange rates and inflation differentials, but the relationship is neither very tight nor closely offsetting. Slow price adjustments cause nominal and real exchange rates to move together.

a. For 1999, the German mark/U.S. dollar rate is calculated from the U.S. dollar/euro rate and the German mark/euro peg.