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Exchange-Rates, Exchange-Rate Regimes, and the 'Unholy Trinity'

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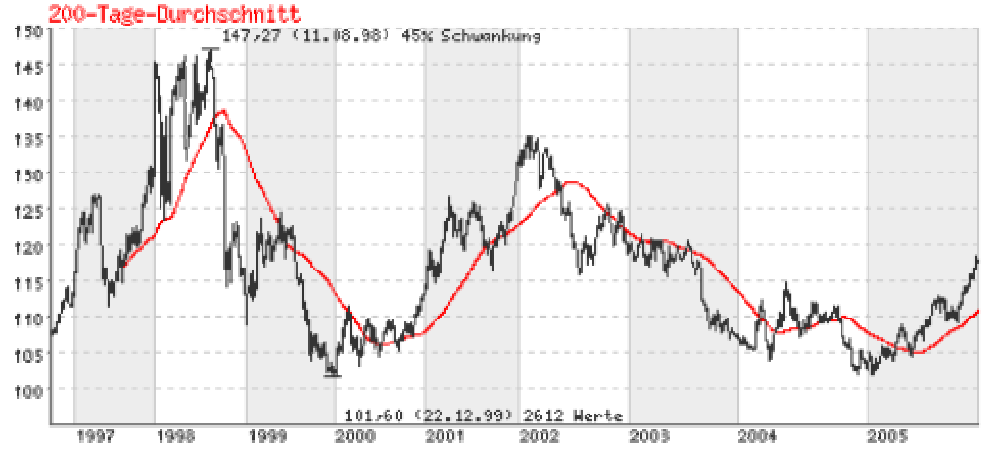
Exchange Rates

The Dollar/Euro Exchange Rate

The Yen/Dollar Echange Rate



Dollar/Yuan

What is an exchange-rate?

An exchange rate is the rate at which one currency can be exchanged for another. In other words, it is the value of another country's currency compared to that of your own (and vice versa).

What drives exchange-rates?

…in the short run?

we don’t know or:

alternatively

sentiments

rumors

expectations about the expectations of other investors

events (shocks)

… in the long run?

the relative ratio of productivity growth and inflation

expectations about productivity and inflation

→ policies

The Politics of Investor Confidence

a depreciation of the domestic currency is caused by

reduction in interest rate (c.p.)

decline in economic growth (c.p.)

increase in inflation (c.p.)

decline in productivity growth (c.p.)

high wage increases (c.p.)

electoral success of left-wing party ? (c.p.)

increase in government debt (c.p.)

increase in government spending? (c.p.)

country-specific demand shocks

else?

Exchange-Rate Systems

Bretton Woods

- Gold-Dollar Standard
- all countries pegged their currency to the dollar
- the value of the Dollar was expressed in gold
- US promised to exchange Dollars in gold
- all countries but the USA had to defend the parities

problems: misalignment of exchange-rate, the Dollar

since 1973

- anything goes (most important currencies float to each other)

problems: (surprisingly) high volatility

Exchange-Rate Regimes

Flexible Exchange-Rate

> the market decides on the relative value of the currency

Managed Float

> in principle the currency floats, but the government may under certain circumstance intervene

Fixed Exchange Rate

> Fixed to Key Currency (Dollar, Euro, Yen?)
> Fixed to Currency Basked
>
> the government(s) has/have the obligation to intervene
>
> important: parities, bandwidths

Currency Board

> Value of Issued Money held in Reserves

Dollarization

Introduction of Dollar/ Euro/ Franc/ Pound as SOLE Means of Payments

Currency Union

Introduction of Common Currency (and common monetary policy)

Why do some countries peg their currency, and other float?

Advantages of stable exchange-rates:

stable expectations

no need to insure against exchange-rate risks
(futures, hedges,…)

→ low transactions costs to trade
→ more trade (Andrew Rose)
→ higher economic growth (?)

Disadvantages of fixed exchange-rates

risk of severe misalignment

speculative attacks on exchange-rate peg

reduction in monetary policy autonomy

How are fixed exchange rates and monetary policy are related?

Mundell-Fleming theorem (unholy trinity):

Government can only reach two of the following three policy goals simultaneously:

stable exchange rates

absence of capital controls

monetary policy autonomy

Paul Krugman on the Global System of Flexible Exchange-Rates

(http://www.econlib.org/library/Enc/ExchangeRates.html)

Exchange rates between currencies have been highly unstable since the collapse of the Bretton Woods system of fixed exchange rates, which lasted from 1946 to 1973. Under the Bretton Woods system, exchange rates (e.g., the number of dollars it takes to buy a British pound or German mark) were fixed at levels determined by governments. Under the "floating" exchange rates we have had since 1973, exchange rates are determined by people buying and selling currencies in the foreign-exchange markets. The instability of floating rates has surprised and disappointed many economists and businessmen, who had not expected them to create so much uncertainty. The history of the pound sterling/U.S. dollar rate is instructive. From 1949 to 1966, that rate did not change at all. In 1967 the devaluation of the pound by 14 percent was regarded as a major economic policy decision. Since the end of fixed rates in 1973 and 1991, however, the pound, on average, either appreciated or depreciated by 14 percent every two years.

The instability of exchange rates in the seventies and eighties would not have surprised the founders of the Bretton Woods system, who had a deep distrust of financial markets. The previous experience with floating exchange rates (in the twenties) had been marked by massive instability. In an influential study of that experience, published in 1942, Norwegian economist Ragnar Nurkse argued that currency markets were subject to "destabilizing speculation," which created pointless and economically damaging fluctuations.

During the fifties and sixties, however, as stresses built on the system of fixed exchange rates, both economists and policymakers began to see exchange rate flexibility in a more favorable light. In a seminal paper in 1953, Milton Friedman argued that the fear of floating exchange rates was unwarranted. Unstable exchange rates in the twenties, he maintained, were caused by unstable policies, not by destabilizing speculation. Friedman went on to argue that profit-maximizing speculators would always tend to stabilize, not destabilize, the exchange rate. By the late sixties Friedman's view had become widely accepted within the economics profession and among many businessmen and bankers. Therefore, concern over the instability of floating exchange rates was replaced by an appreciation of the greater flexibility that floating rates would give to macroeconomic policy. The main advantage was that nations could pursue independent monetary policies and adjust easily to eliminate payments imbalances and offset changes in their international competitiveness. This change in attitude helped to prepare the way for the abandonment of fixed rates in 1973.

The instability of rates since 1973 has thus been a severe disappointment. Some of the changes in exchange rates can be attributed to differences in national inflation rates. But yearly changes in exchange rates have been much larger than can be explained by differences in inflation rates or in other variables such as different growth rates in various countries' money supplies.

Why are exchange rates so unstable? Economists have suggested two explanations. One, originally expressed in a celebrated 1976 paper by MIT economist Rudiger Dornbusch, is that even without destabilizing speculation, exchange rates will be highly variable because of a phenomenon that Dornbusch labeled "over-shooting." Suppose that the United States increases its money supply. In the long run this must cause the value of the dollar to be lower; in the short run it will lead to a lower interest rate on dollar-

denominated securities. But as Dornbusch pointed out, if the interest rate on dollar-denominated bonds falls below that on other assets, investors will be unwilling to hold them unless they expect the dollar to rise against other currencies in the future. How can the prospect of a long-run lower dollar and the need to offer investors a rising dollar be reconciled? The answer, Dornbusch asserted, is that the dollar must fall below its long-run value in the short run, so that it has room to rise. That is, if the U.S. money supply rises by 10 percent, which will eventually mean a 10 percent weaker dollar, the immediate impact will be a dollar depreciation of more than 10 percent—say 20 or 25 percent—"overshooting" the long-run value. The overshooting hypothesis helps explain why exchange rates are so much more unstable than inflation rates or money supplies.

In spite of the intellectual appeal of the overshooting hypothesis, many economists have returned to the idea that destabilizing speculation is the principal cause of exchange rate instability. If those who buy and sell foreign exchange are rational, then forward exchange rates—rates today for sale of dollars some months hence—should be the best predictors of future exchange rates. But a key study by the University of Chicago's Lars Hansen and Northwestern University's Robert Hodrick in 1980 found that forward exchange rates actually have no useful predictive power. Since that study many other researchers have reached the same conclusion.

At the same time, particular exchange rate fluctuations have seemed to depart clearly from any reasonable valuation. The run-up of the dollar in late 1984, for example, brought it to a level that priced U.S. industry out of many markets. The trade deficits that would have resulted could not have been sustained indefinitely, implying that the dollar would have to decline over time. Yet investors, by being willing to hold dollar-denominated bonds with only small interest premiums, were implicitly forecasting that the dollar would decline only slowly. Stephen Marris and I both pointed out that if the dollar were to decline as slowly as the market appeared to believe, growing U.S. interest payments to foreigners would outpace any decline in the trade deficit, implying an explosive and hence impossible growth in foreign debt. It was therefore apparent that the market was overvaluing the dollar. Overall, there is no evidence supporting Friedman's assumption that speculators would act in a rational, stabilizing fashion. And in several episodes Nurkse's fears of destabilizing speculation seem to ring true.

What are the effects of exchange rate instability? The effects on both the prices and volumes of goods and services in world trade have been surprisingly small. During the eighties real West German wages went from 20 percent above the U.S. level to 25 percent below, then back to 30 percent above. One might have expected this to lead to huge swings in prices and in market shares. Yet the effects, while there, were fairly mild. In particular, many firms seem to have followed a strategy of "pricing to market" (i.e., keeping the prices of their exports stable in terms of the importing country's currency). Significant examples are the prices of imported automobiles in the United States, which neither fell much when the dollar was rising nor rose much when it began falling. Statistical studies, notably by Wharton economist Richard Marston, have documented the importance of pricing to market, especially among Japanese firms.

The policy implications of unstable exchange rates remain a subject of great dispute. Refreshingly, this is not the usual debate between laissez-faire economists who trust markets and distrust governments, and interventionist economists with the opposite instincts. Instead, both camps are divided, and advocates of both fixed and floating rates find themselves with unaccustomed allies. Laissez-faire economists are divided between those who, like Milton Friedman, want stable monetary growth and therefore want to leave the exchange rate alone, and those who, like Columbia University's Robert Mundell, want the discipline of fixed exchange rates and even a return to the gold standard. Interventionists are divided between those who, like Yale's James Tobin, regard exchange rate instability as a price worth paying for the freedom to pursue an activist monetary policy, and those who, like John Williamson of the Institute for International

Economics, distrust financial markets too much to trust them with determining the exchange rate.

In general, sentiment among both economists and policymakers has drifted away from belief in freely floating rates. On the one hand, exchange rates among the major currencies have been more erratic than anyone expected. On the other hand, the European Monetary System, an experiment in quasi-fixed rates, has proved surprisingly durable. Taking the long view, however, attitudes about exchange rate instability have repeatedly shifted, proving ultimately as poorly grounded in fundamentals as the rates themselves.