

The International Monetary System and Exchange Rate Determination: 1945 to the Present

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Increasingly, the foreign exchange market has become a focus for pecuniary pursuits at the expense of trade and direct investment. Two of the side effects of the increased use of exchange market operations for pecuniary gain have been rate volatility and chronic payments imbalances. While it is fairly clear that the problems of today have their roots in the tremendous growth of the international money market, it remains to explain the nature and causes of that growth. It is the purpose of this paper to summarize the developments responsible for making the foreign currency market the planet's only worldwide, 24-hour casino.

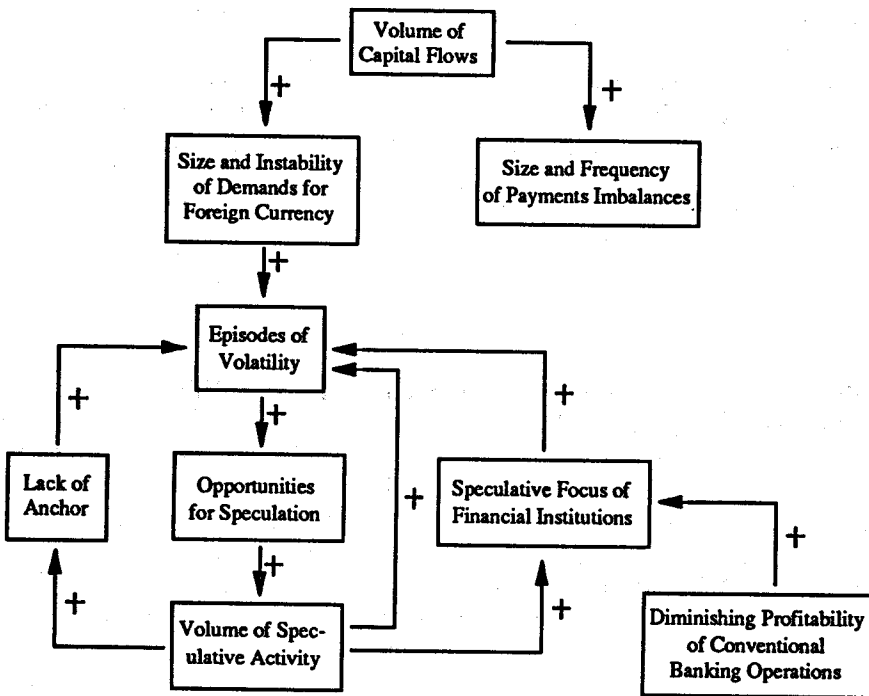
***Today's Market*¹**

Exchange rates are marked by tremendous volatility and chronic misalignment.² Volatility discourages trade and investment by adding another cost to trading internationally, and misalignment means that trade imbalances can exist for long periods of time with no self-correcting tendency to restore balance [Pozo 1992]. Imbalances cause political friction and tend to break down the spirit of international cooperation and compromise. Both the volatility and at least part of the misalignment are consequences of the structure of the market today, which in turn is the result of the massive growth of the international capital market.

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The relationship between volatility and misalignment is illustrated in Figure 1. To begin, the link between the volume of capital flows and the frequency and severity of payments imbalances is the result of the fact that the demand for foreign currency is not derived solely or even largely from the international demand for goods and services. The level of daily exchange rate transactions far exceeds that necessary for international trade.³ Thus, the self-correction mechanism that is usually held to exist does not because the demand for foreign currency is derived from far more than the international demand for goods and services, and there is no guarantee that the exchange rate cannot settle at levels other than that which yields balanced trade.

Figure 1. Impact of Rising Volume of Capital Flows on Foreign Exchange Markets



The straight line of causation between the volume of capital flows and the volume of speculative activity is explained thusly. Trade flows tend to be much more stable, especially in the shortest of runs, than capital flows. The most obvious reason for this is the ease with which one can change the composition of a financial portfolio as compared to changing sources of supply of an international good or service. As capital flows have grown, the size and instability of the demand for foreign currency has grown.

If the size and instability of the demand for foreign currency grows, then the likelihood of episodes of volatility increases. And if foreign currency possesses the characteristics that make it desirable as an asset [Krause 1991, 65-66], then, as currency prices become more and more volatile, opportunities for speculation in that asset will increase. Assuming that parties exist who wish to take advantage of these opportunities, this leads to an increase in the volume of speculative activity [Moffit 1983, 83].

The increasing volume of speculative activity has a number of consequences and leads to three positive-feedback loops, each causing the role of speculation to become more important. For one, the rise in the volume of speculative activity directly contributes to the rise in the size and instability of demands for foreign exchange and therefore volatility.⁴

Second, the increasing importance of speculative activity has led to a situation in which there is no anchor or central tendency to exchange rates independent of those speculative forces. It is often stated that exchange rates respond to changes in "fundamental" variables. These values are supposed to yield the central tendency toward which rates are drawn. For such a tendency to exist, it is necessary that the factors determining the demand for foreign currency be relatively stable and easy to identify and that the processes affected by these factors be responsible for the bulk of foreign exchange trading. Under these circumstances, any speculation is stabilizing because it anticipates movements in those stable and obvious factors that dominate the market.

But economist after economist has come to the revelation that speculation is the dominant force in the market [Harvey 1993a, 1993b, 1991; Krause 1991; Schulmeister 1987; Shelton 1994, 88]. If that is true, then no central tendency exists independent of dealer's expectations. The determinants of their speculative activities are neither stable nor easily identified, so that exchange rate volatility becomes even more likely as dealers buy and sell in search of a mysterious, future equilibrium rate.

The third and final feedback loop starts with the impact of the increasing volume of speculation on the foreign exchange activities of financial institutions. In combination with the declining profitability of banks'

traditional operations, the increasing volume of speculative activity has shifted the focus of financial institutions' foreign exchange operations more and more toward currency speculation [Brady 1992; Moffit 1983].⁵ As this focus changes, it becomes increasingly likely that any volatility in the foreign exchange market (because volatility creates the opportunity for profit) will lead to speculative purchases and sales that will in turn compound the volatility. The volatility is increased, rather than diminished, because there is no central tendency upon which those engaging in speculative activity can focus.

Bretton Woods

At first glance, one might imagine that it was the collapse of the Bretton Woods regime that signalled the onset of the evolutionary process leading to today's foreign exchange market. However, the spectacular growth of the capital market really began in the late 1950s. Furthermore, while the designers of the Bretton Woods system did not intend to create the conditions that would lead to such growth, both the existence and non-existence of certain policies did just that.

According to Laurence Krause, John Maynard Keynes recognized the hazards of allowing unrestricted capital flows. Keynes believed capital controls were necessary if central banks were to have the power to defend the parities set under Bretton Woods and if domestic policy (especially interest rates) were not to be straightjacketed by international considerations [Krause 1991, 62-65]. He recommended, "Not merely as a feature of the transition, but as a permanent arrangement . . . the right to control all capital movements" [cited by Bryant 1987, 61-62; I am quoting from Krause 1991, 64]. As part of this policy, he recommended that all currency be converted through national central banks [Krause 1991, 62].

In general, this sentiment became part of the Articles of Agreement of the International Monetary Fund, although market convertibility was substituted for Keynes's official convertibility [Krause 1991, 62]. While each country was to eventually guarantee convertibility of currencies used to finance international trade and payments (according to Article VIII; such flows were, however, controlled at the beginning), pure capital flows could be, and were, legally controlled [Fraser 1987, 19-28]. In practice, each country put in place regulations intended to "balkanize" the various national capital markets [Krause 1991, 64]. It was hoped that this would slow the movement of capital internationally, reduce the level of speculation, and make exchange rates manageable.

The remarkable recovery of Western Europe by 1958 led to the first steps toward liberalization. In December of that year, 13 countries ceased controlling their supplies of dollars and fully embraced the convertibility obligations outlined in Article VIII. This move was intended, largely, to encourage trade by freeing short-term capital flows that might serve as finance [Fraser 1987, 25-26; McKinnon 1977, 6]. Its actual effect was more broad ranging.

The power to control currency movements had already been weakened by not accepting Keynes's proposal of official convertibility. With the combination of the freeing of short-term capital flows and the coincident accumulation of large dollar reserves in Europe, tremendous fuel was added to the growth of the fledgling Eurodollar market [Johnston 1982, 10-11; Sarver 1988, 19-20].⁶ The Eurodollar market's growth was further spurred not only by the existence of the balkanizing capital controls mentioned above (which the Eurodollar market could avoid), but also by additional regulations added in the 1960s and 1970s:

This internationalisation of banking and the growth of the Euro-currency market was importantly stimulated by national controls and regulations introduced in the 1960's and early 1970's to restrict the international flow of short- and longer-term capital. These controls shifted locus of international transactions to the Euro-currency markets and away from national banking systems [Johnston 1982, 12].

Hence, the attempt of policymakers to both embrace free-market principles and regulate the movement of capital failed. Trying to allow enough capital mobility to finance trade while restricting "pure" capital flows led to the tremendous growth of the Eurodollar market. That growth, because it led to a situation in which massive dollar flows could and did take place in a short period of time, helped accelerate the collapse of the Bretton Woods regime [Moffitt 1983, 83-83; Bell 1973, 91-92].

The Bretton Woods systems had other, serious problems, so that more intense regulation of capital movements would not have guaranteed its survival. But there is no doubt that, as the events did unfold, it was a major, contributing factor. From 1964 (the first year for which figures are available) to 1973, the Eurodollar market grew from the equivalent of \$20 billion to \$305 billion [Sarver 1988, 6-7]. By 1973, speculators in that growing capital market had challenged and defeated every central bank, including the Federal Reserve [Moffitt 1983, 71-92]. By the end of the Bretton Woods period, the stage was very clearly set for the continued growth and domination of the international capital market.

Capital Markets since Bretton Woods

The following dramatic passages from Andrew Walter's *World Power and World Money* give striking evidence of the importance of modern international capital markets:

The value of world trade in 1988 amounted to more than \$3 trillion, compared with US GDP in that year of \$4.8 trillion. Though accurate figures are difficult to obtain, in 1986 the London Eurodollar market, virtually unregulated by public authorities, was reckoned to turn over the equivalent of \$300 billion *per day*, or about \$75 trillion per year [Walter 1991, 196].

Another indication of the extent to which capital flows have come to dominate and become increasingly separated from trade-related payments is the size of foreign exchange market transactions. An April 1989 study estimated that *daily* turnover in London, New York and Tokyo was \$187 billion, \$129 billion, and \$115 billion respectively. The great majority of these transactions, perhaps 90 per cent or more, are unrelated to current account flows [Walter 1991, 197].

Since the total foreign exchange reserves of central banks were almost \$800 billion by mid-1990, it is clear that the international interbank market easily dominates the official sector. Central bank reserves are less than the equivalent of *two days'* turnover in the world's foreign exchange market . . . [Walter 1991, 198].

The factors that have continued the growth of those capital flows since the collapse of Bretton Woods are numerous.⁷ I have divided them into three categories: policy, exogenous, and endogenous. They will be addressed in that order. Two major policy movements have taken place since the collapse of Bretton Woods, both of which have served to increase the volume of international capital flows. First, as suggested above, continued attempts to control capital movements within each country spurred on the growth of the Eurodollar market as investors tried to avoid those controls. Ironically, once the market had become well established in the 1960s, the shift toward liberalization of domestic and international economies (as represented especially by the Thatcher and Reagan governments) led to even greater growth.⁸

The major exogenous factors since the collapse of the Bretton Woods regime were the spread of multinational corporations throughout the world, the international slowdown in productivity growth, and the OPEC oil shocks. Multinationals were already growing in importance during the

Bretton Woods period, and this trend continued with vigor after the move to flexible rates. Naturally, domestic banks had a strong incentive to follow customers overseas and to continue to provide their financial services in a new country. The internationalization of production had a definite and predictable impact on banking [Park and Zwick 1985, 16-17].

On the other side of the coin, the general slowdown in global growth rates that took place in the seventies meant that accumulated wealth could no longer find enough investment opportunities in the real sector [Walter 1991, 202]. These funds found their way into international portfolios not only because the owners were anxious to seek returns, but because the intermediaries also sought income.

This building of international portfolios greatly intensified when the OPEC embargoes generated unprecedented wealth in search of investments [Walter 1991, 202; Sarver 1988, 24-28; Johnston 1982, 20-21]. The OPEC surplus over the time period 1973-1982 was around \$465 billion, and the role of international financial institutions in recycling of these funds is now well documented [Walter 1991, 202].

Policy-oriented and exogenous factors contributing to the growth of the market for international capital have led to endogenous changes that also served to increase the flows. Perhaps most important has been the application of the emerging computer and communications technology to international finance [Walter 1991, 201]. It is very well known that most money is now electronic and that transferring dollars to London requires little more than a keystroke. The nearly instant access to international customers and colleagues, in combination with the constant stream of economic and political news (both fact and fiction), made possible the absorption of the vast funds invested over the past 20 years. Today, the volume of capital that can potentially change borders and currency denomination as portfolios change composition is truly staggering.

Naturally, along with the changing technology has evolved changing operating techniques and financial products. Banks have become more and more focused on the needs of customers in an age where profitable real investment opportunities are declining. And as financial institutions focus more and more on helping clients create and manage portfolios of international assets, they have also created new and more sophisticated instruments to sell in the process [Walter 1991, 201; Sarver 1988, 25-26].

Conclusions

The factors that have contributed to the massive growth of the international capital market also created the exchange rate volatility and

misalignment of our international payments system (not to mention the debt crisis). Since the end of World War II, our international economy has moved steadily from encouraging industrial pursuits (e.g., the rebuilding of Europe and Japan) to pecuniary ones (massive, disruptive flows of cash seeking short-term capital gain).

A constant theme throughout the postwar period has been a commitment to market liberalism; and it is this, more than any of the particular causes and effects listed above, that has driven the evolution of the market to its present point. Even when capital flows were controlled, with the full sanction of the IMF, the sentiment that free markets were to be preferred was still very strong. Take, for instance, the rejection of Keynes's notion of official convertibility. While Keynes believed that all currency exchange should be channelled through central banks, when the Articles of Agreement were eventually ratified, they specified that private institutions would play that role. Furthermore, despite their desire to balkanize domestic capital markets, little was done to stop the growth of the Eurodollar market. The commitment to currency convertibility for current transactions (Article VIII) and the IMF's official discouragement of multiple exchange rate practices made an effective response to rising capital flows impossible [Fraser 1987, 22]. The collapse of Bretton Woods and the Thatcher-Reagan pursuit of wholesale deregulation simply continued this trend. Without controls, bankers' reactions to the opportunities that presented themselves throughout the postwar period are not surprising. Our system rewards individuals for selling high and buying low, not adding to world welfare.

Of course, many economists associate market solutions with "efficiency" and, in a roundabout way, world welfare. How can we blame the political leaders when their economic advisors encourage them to increase the international liquidity of investment capital? But this brings us back to Keynes, again:

Of the maxims of orthodox finance none, surely, is more anti-social than the fetish of liquidity, the doctrine that it is a positive virtue on the part of investment institutions to concentrate their resources upon the holding of "liquid" securities. It forgets that there is no such thing as liquidity of investment for the community as a whole [Keynes 1964, 155].

Notes

1. This section is based on Harvey [1993a, 689-693].

2. There is more than one definition of misalignment. Here, an exchange rate is misaligned when the current account is not balanced.
3. Estimates place the ratio of total transactions to world trade at anywhere from 10 to 50 [Walter 1991, 197; Douch 1989, 66; Schulmeister 1987, 8; Group of Thirty 1985, 12].
4. Strictly speaking, the loop should probably go from "Volume of Speculative Activity" to "Volume of Capital Flows," but I wanted to distinguish between the role of capital flows in general and currency speculation.
5. Ironically, the profit from these operations may not actually be from the speculative operations per se [Schulmeister 1987, 24-28].
6. The broad definition of Eurodollar is used here, meaning that a Eurodollar is any currency deposited in a bank located anywhere but that currency's country of origin.
7. The collapse itself was something of a factor, since it opened the door to even greater exchange rate volatility and therefore to speculation. Of course, the demise of Bretton Woods was also partially created by the growth of capital markets. For that reason, I think that it is best to view the end of fixed exchange rates as a side effect of the growth of capital markets rather than an independent cause.
8. Apparently, the Eurodollar market's role as haven from government regulation was only transitional, declining in importance as the market grew [Johnston 1982, 20-21].

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