

## **Floating, Fixed, or Super-Fixed?**

### **Dollarization Joins the Menu of Exchange Rate Options**

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The perennial debate on the relative merits of alternative exchange-rate regimes was revived in the 1990s by a succession of exchange-rate crises and associated global contagion. Despite declining enthusiasm for market-determined exchange rates, the currencies of most developed countries continued to float subject to only limited discretionary intervention. The major exception has been the European Union. Following a period of crises that accompanied attempts to keep exchange rates within predefined limits, eleven EU members opted for a common regional currency issued by a regional central bank--a choice not even on the policy menu at the start of the decade. Developing countries and transition economies were also divided between those willing to cope with a market-determined rate and those choosing to fix in terms of another currency or currency basket.

The newest twist for countries that fix their rate concerns minimizing the risk of crisis, and especially crisis via contagion. Traditional crisis prevention emphasizes appropriate macroeconomic fundamentals bolstered by adequate international reserves and emergency lines of credit. Indeed, the main function initially envisioned for the International Monetary Fund (IMF) was to provide supplementary balance-of-payments financing as needed to maintain official par values, including fending off speculative attack while a country was getting its fundamentals back in order. But the crises of the 1990s delivered a disheartening message. Neither sound fundamentals nor seemingly adequate reserves and credit lines were reliable defense against determined speculators. Hence the increased attention to an alternative approach

to crisis prevention: making a fixed rate entirely credible, and thus uninteresting to speculators in search of targets for attack, by establishing a currency board or even dollarization, i.e., one country's official adoption of another country's currency.

These options are hardly new. Panama has used the U.S. dollar as its official currency since 1904. Unofficial dollarization, also known as currency substitution, has long been a common feature of developing and transition economies, especially when national currencies are subject to a high inflation tax. Currency boards were a standard monetary arrangement in British colonies; Mauritius had the first of these in 1849 (John Williamson 1995). What is new is the perceived role of these arrangements in reducing or eliminating the risk of exchange-rate crises for countries with a fixed exchange rate. Our purpose is to clarify this role and recast the familiar fixed versus flexible rate discussion by distinguishing adjustable pegs from rates that are more or less permanently fixed through a currency board or dollarization. The decision to create the regional Euro raises many of the same issues. However, the Euro is already the subject of an enormous literature (e.g., Barry Eichengreen 1997, Giancarlo Corsetti and Paolo Pesenti 1999). We therefore focus primarily on issues most relevant for developing and transition economies.

## **I. The Post-1973 International Monetary Non-System**

Now in its third decade, the free-for-all approach to exchange-rate regimes that emerged from the collapse of the Bretton Woods system has achieved a mixed record of successes and failures. Confirming predictions of early advocates, most notably Milton Friedman (1953), widespread use of flexible rates paved the way for elimination of exchange controls and liberalization worldwide of trade and capital flows. Flexible rates also freed domestic monetary policy from its earlier preoccupation with external balance. But market-driven rates brought unexpected problems of their own. As international capital flows reached unprecedented size,

corresponding exchange-rate movements created major deviations from purchasing power parity and disruptive swings in trade competitiveness. Attempts to use monetary policy to achieve domestic employment objectives at the expense of higher inflation and increased reliance on seigniorage to finance government spending culminated in an era of global stagflation. Belatedly acknowledging instability of the short-run Phillips curve and the surprisingly high economic and political costs of inflation, central banks in major countries reverted to a more conservative stance, with promotion of low inflation and/or exchange-rate stability again paramount (Michael Bordo and Anna Schwartz 1999).

Associated with renewed macroeconomic conservatism on the domestic side, developed and developing countries experimented with arrangements to limit exchange rate movements. In particular, opting for a peg was seen not only as a means to promote trade and capital flows but also as the quickest way for a central bank to commit credibly to an anti-inflation stance and thus reduce its cost in temporarily lower output. But experiments with pegs and narrowed bands soon led to the rediscovery of an old truth from the Bretton Woods era: given highly mobile capital, exchange-rate crises are a fundamental feature of any pegged-rate system. Moreover, the spectacular development of international capital markets since 1973 has further increased the risk of speculative attack as well as its potential damage. Parity changes are rarely achieved without an attending crisis and associated costs; some costs of crisis, particularly very high interest rates, must be borne even by countries that eventually succeed in beating off the speculators.

## **II. Fixed versus Flexible**

We restate the choice between fixed and flexible exchange rates in terms of two related questions. First is the classic question: are there net gains from maintaining the degree of freedom that a flexible exchange rate offers? However, recent experience suggests a second and

equally important question: how can a fixed exchange rate be sustained in a world of internationally mobile capital?

Friedman's case for flexible rates rests primarily on the assumption that direct controls will be used to sustain inappropriate pegs. His case is thus a negative one; allowing the market to determine exchange rates avoids costs from exchange controls and other distortionary policies. In light of the substantial efficiency gains from a common currency, Friedman endorses a continued sterling area as long as fixed rates within the area can be maintained without trade restrictions. In contrast, the optimum currency area analysis (Mundell 1961, Ronald McKinnon 1963, Peter Kenen 1969) ignores possible costs of maintaining fixed rates and focuses on the potential value of an exchange-rate instrument in active macroeconomic management. A common currency<sup>1</sup> offers efficiency benefits and, as discussed below, may rule out speculative bubbles and attacks centered on the price of one region's currency in terms of another. However, region-specific shocks complicate the situation. In Mundell's Keynesian framework of sticky prices and money illusion, exchange-rate policy represents a second-best response to asymmetric shocks. The first-best response, improving the efficiency of factor markets, is implicitly ruled out. Moreover, Mundell assumes that a flexible rate will move to restore balanced trade; recent experience underscores that capital flows rather than trade flows are the principal driver of flexible rates. The key role of mobile capital in determining exchange-rate movements implies that, rather than assuring maintenance of full employment in the face of asymmetric shocks, flexible rates may themselves be a significant source of such shocks.

Advocates of a common regional currency do not claim that the European Union does not satisfy the Mundellian criteria for an optimum currency area. Rather, they emphasize the efficiency advantages of a single currency over many national currencies in terms of reduced

transaction and information costs, and potential scale economies in the financial services sector. These efficiency benefits are seen to outweigh gains from retaining the option of national exchange-rate realignment as an element of macroeconomic management (Eichengreen 1997).

Another element of the fixed/flexible question is the need to gain monetary credibility. Perhaps the best, and simplest, argument for a fixed exchange rate is that a central bank can gain credibility by pegging to a strong anchor currency.<sup>2</sup> In principle, adoption of a fixed exchange rate rules out discretionary monetary policy. However, the message is most persuasive when linked to an exchange rate mechanism such as currency board, which comes close to adoption of a simple rule for monetary growth.<sup>3</sup>

### **III. Fixed versus Super-Fixed**

Once a country decides against a floating rate, it now faces a second choice between some type of fixed exchange rate mechanism and the more permanent solution of adopting another country's currency or a common regional currency. The large and highly responsive capital flows in modern markets call into question the stability of any fixed exchange rate system (Maurice Obstfeld and Kenneth Rogoff 1995, Jeffrey Frankel 1999). The middle ground of a fixed but changeable exchange rate may be unsustainable over longer periods and therefore crisis-prone. Recent theoretical work surveyed by Robert Flood and Nancy Marion (1998) suggests that speculative attacks will be difficult to predict. Given the self-fulfilling nature of such attacks there may be little a small country can do to avoid them. However, this conclusion also depends on the availability and efficacy of policy tools such as capital controls and global lending facilities. The recent examples of Argentina and Hong Kong show that even the rigid rules and reserve requirements of a currency board cannot protect a fixed rate from the activities of speculators. Likewise, as discussed below, even a decades-long record at the same par value

relative to the French franc did not protect the CFA franc from coming under speculative attack in the late 1980s. Because financial markets recognize the possibility of a parity change, fixed exchange rate systems, even those with a currency board arrangement, can be subject to dramatically higher interest rates during attacks, and also sustain higher interest rates over the long term interest rates to the 1994 crisis in Mexico. At their peak during the 1994 crisis in Mexico, Argentine peso 30-60 day time deposit rates were nearly 10 percentage points higher than comparable dollar rates (Francois Velde and Marcelo Veracierto 1999.<sup>4</sup> Over the period from 1997 to 1999, interest rates on Argentine peso-denominated deposits averaged nearly 1-1/2 percentage points higher on average from 1997 to 1999 than on their dollar-denominated equivalents, with the spread widening to more than 4 percentage points on occasion (Lawrence Summers 1999).

To avoid the higher cost of capital associated with the possibility, no matter how remote, of a parity change, the next logical step is to adopt the dollar (or another outside currency) as its own. Authors putting forward the case for dollarization (Guillermo Calvo and Carmen Reinhart 1999, Calvo 1999) put primary stress on the implications for capital markets. By enhancing links to global capital markets, the common currency provides access to capital at lower interest rates. But while lower and less volatile interest rates appear to be the major attraction, there are further gains from dollarization to be considered. The trade-enhancing effect of a shared currency may be significant. Using panel data for 186 countries over a twenty-year period, Andrew Rose (1999) concludes that countries sharing the same currency trade three times as much as they would with different currencies. Rose's evidence is consistent with earlier research showing significantly larger trade flows between pairs of Canadian provinces than between comparable U.S. state-Canadian province pairs (McCallum 1995).

Another benefit, difficult to measure but potentially important, arises from saving of skilled labor otherwise required to manage domestic monetary growth and the exchange-rate mechanism. Relieved of the need to staff these areas, developing and transition countries could deploy their limited supply of appropriately trained personnel to enhancing economic performance through improvements in factor-market, fiscal, and trade policies.

A final consideration is that dollarization requires the action of just one (for unilateral) or two (for negotiated bilateral) countries. It is thus an option that can be implemented quickly, in contrast to elaborate schemes for a "new financial architecture" requiring the assent and ongoing cooperation of many nations with divergent interests. The same logic can be expanded to make a theoretical case for a global currency. However, it seems unlikely, at least under current conditions, that developed countries would cede sovereignty in this area an inclusive international organization.<sup>5</sup>

#### **IV. Costs of Dollarization**

Any country considering adopting another's currency, such as dollarization in Argentina, will have to present a strong case. To begin with, such a drastic sacrifice of national sovereignty is sure to arouse strong opposition for purely symbolic reasons. As protests at the December 1999 World Trade Organization ministerial meeting in Seattle indicated, there is a growing backlash to globalization even in the United States. Yet the mere fact that the possibility is under active consideration, along with the EU's adoption of a regional currency, suggests that dollarization should not be written off as a political nonstarter.

Adoption of a foreign currency also raises deeper economic issues. The first is lost seigniorage in the absence of a bilateral agreement for sharing revenues (see United States Senate 1999 for a seigniorage-sharing proposal). A second cost is the loss of the lender of last

resort function of the domestic central bank, although for a country that has already moved to a highly restrictive system such as a currency board, this may not be a significant change from the status quo. To assure stability of the domestic financial system, the central bank could create a fund to bail out ailing banks or establish international credit lines similar to those Argentina has put in place to defend the peso. Moreover, private-sector initiatives to provide lender of last resort function and/or deposit insurance could perhaps offer adequate protection, especially for smaller countries (Mann 1999). How significant are these costs? Willem Buiter (1999) concludes that Canada would benefit from a symmetric monetary union with the United States, primarily through the implied integration of financial markets. However, Buiter rejects unilateral dollarization because of seigniorage considerations and loss of lender of last resort.

A final issue is the possibility of international political conflict with the currency-providing nation (the experience of Panama is discussed below). Reliance on another country's currency implies vulnerability to a type of monetary warfare. A dollarizing country should therefore consider safeguards such as holding funds in off-shore accounts beyond the reach of the United States.

## **V. Dollarization in Panama**

Panama adopted the U.S. dollar as its official currency in 1904 and has subsequently remained a dollar-based economy. It therefore provides a useful test case on economic performance under dollarization.<sup>6</sup> Over the past century Panama has followed a different monetary path from its Latin American neighbors, with low inflation and interest rates. It is the only Latin American country with an active 30-year fixed rate mortgage market (Summers 1999). Panama's central bank has experienced none of the credibility crises that have plagued other countries in the region. The National Bank of Panama (NBP) has no monetary-policy role



and is primarily concerned with check clearing. Until 1970 it was heavily involved in regulating local banks, a role greatly reduced by deregulation of banking.

While dollarization brought monetary stability to Panama, it has not been a panacea in terms of economic growth. Over the century, growth rates have been in the moderate, 3 to 7 percent, range. Dollarization has not prevented bad policies, including import substitution in the 1950s and several types of agrarian "reform" in the 1970s. Panama has also dabbled in transportation services that were directly related to its special geographic position with the canal.

One interesting direction of Panamanian policy was the effort to develop as an international banking center, thus capitalizing on its use of the U.S. dollar and its relatively flexible banking laws. These same conditions also helped to make it a center for money laundering in the drug trade. In the late 1980s U.S. began actions against Panama and specifically President Manuel Noriega that included freezing \$50 million of NBP deposits held in New York banks. The U.S. objective was literally to starve Panama of cash. Even though NBP had large cash reserves due to the money laundering operations, many local banks were forced to close and general panic in cash holdings ensued. GDP fell by 17 percent in 1988 as a result of outside monetary disturbances.

Panama presents three important lessons for the dollarization debate. The dollar can indeed provide a stable monetary base for a country, giving it a low inflation anchor. However, dollarization cannot overcome unwise growth and development policies. Dollarization can also put a country at risk for a type of monetary warfare emanating from the United States. While other types of economic sanctions are often ineffective, monetary restrictions on a dollarized economy directly target the country's monetary and banking systems. Nonetheless, a country can reduce its vulnerability to this kind of pressure through safeguards in the form of off-shore

accounts, i.e., Eurodollar accounts in banks not controlled by U.S. officials--precautions that Panamanian officials did not take.

## **VI. The Franc Zone**

The closest to a permanently fixed rate since World War II is the CFA (Communaute Financiere Africaine, originally Colonies Francaises Africaines) franc used by two groups of countries in sub-Sahara Africa. The exchange rate for the CFA franc was fixed relative to the French franc for over 45 years, from October 1948 until January 1994. However, even this long-fixed rate ended in a protracted period similar in its character and costs to the crises that precede every change in a par value.

Like Panama, members of the franc zone avoided the rampant inflation that plagued most of their neighbors. Perhaps for this reason, until the 1980s they also enjoyed higher average growth rates than similar countries outside the zone. However, CFA members gradually lost international competitiveness due to a combination of adverse terms-of-trade movements and wage increases not matched by productivity improvements; for the decade of the 1980s, growth of per capita income was negative in most CFA countries. Despite the zone's decades-long success in maintaining the peg, capital flight added to members' problems as a devaluation became more probable. Following Friedman's (1953) assessment, most countries piled on direct controls rather than accepting necessary adjustments such as reduced real wages. A 50 percent devaluation in 1994, together with implementation of structural reforms overseen by the IMF, was followed by much-improved growth performance in the second half of the 1990s.

As with Panama, the CFA experience indicates that a firm peg to a low-inflation currency is an effective way to maintain low inflation but not insurance against poor policy choices. It is notable too that despite its long history at an unchanged peg, the devaluation of the CFA franc

was preceded by a period of turmoil similar in its character and costs to the crises that typically precede changes in par values of shorter duration. Had the zone been a "frankified" region, the outcome would have differed in two ways. There would have been no reason for the capital flight that occurred in the years prior to the devaluation. But there would have been no way to roll back excessive real wages and restore international competitiveness in a single stroke.

## **VII. Conclusions**

In the complete menu of foreign exchange choices facing developing countries, we find the case for dollarization very appealing. For a country that has already chosen a fixed exchange rate or currency board, adopting a foreign currency looks attractive under an appropriate seigniorage-sharing scheme. Intermediate policies are likely to be subject to instabilities and entail extra costs related to these risks. The choice of a full float remains, but for many countries the value of the active monetary policy permitted by a float is small compared with the enhanced price stability offered by a fixed rate or common currency regime.

Beyond individual countries, we do not take these arguments so far as to advocate a common global currency. However, it is interesting to note that the dynamic process we suggest here could lead to a world of a few growing, and perhaps competing, currency blocks. Could this small number of currency blocks eventually find it advantageous to link since they will have greatly surpassed an optimal regional currency area in the Mundellian sense?

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<sup>1</sup> Significantly, Mundell and subsequent authors in this literature refer interchangeably to what events show to be distinct regimes: fixed exchange rates between two or more national currencies (Canada and the United States) and one currency used in two or more regions within one country (Eastern and Western Canada).

<sup>2</sup> The logic of this approach of course requires that the large country or currency block offer a relatively low inflation anchor. Future stability of the adopted currency is a crucial

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consideration. As Bordo and Schwartz (1999) observe, the Fed has been operating with low inflation as its primary goal only since 1979, a relatively brief part of its history. In an earlier era, reestablishment of a link to gold signalled a central bank's resolution to discontinue inflationary money growth or even tighten money enough to reduce the price level.

<sup>3</sup> In practice countries with currency-board-type arrangements maintain some limited flexibility with regard to monetary policy.

<sup>4</sup> Measurement of the costs of these premia is an interesting issue. Comparisons must be fair. Thus, rates on bonds in comparable default classes need to be compared, which may be difficult across borders and given that default risk may depend critically on devaluation probabilities.

<sup>5</sup> The experience of the IMF with the ineffective Special Drawing Rights plan to enhance global liquidity is instructive.

<sup>6</sup> See Moreno-Villalaz (1999) for a short summary of the Panamanian experience with a dollarized economy and Zimbalist (1991) for a more extensive of description.