

# MONETARY POLICY IN A WORLD OF MOBILE CAPITAL

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The free movement of capital across borders has created, and will certainly continue to create, enormous economic benefits. Capital flows afford developing countries and other regions the means to exploit promising investment opportunities while providing savers around the globe the means both to earn higher returns and to reduce risk through international portfolio diversification. Access to international capital markets also permits nations to accumulate foreign assets in good times and to deplete those assets or to borrow in bad times, mitigating the effects on living standards of shocks to domestic income and production. In recent years, global capital flows have attained record highs relative to global income, reflecting both the powerful tendency of capital to seek the highest return and a concerted international effort to dismantle political and regulatory barriers to capital mobility.

In this article, I address the role of monetary policy, particularly the choice of the exchange rate regime, in enabling economies to take maximum advantage of the increasing openness and depth of international capital markets.

## The Trilemma

The discussion of monetary policy and capital flows almost inevitably begins with the well-known trilemma, the observation that a country can choose no more than two of the following three features

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of its policy regime: (1) free capital mobility across borders, (2) a fixed exchange rate, and (3) an independent monetary policy.<sup>1</sup> Various combinations of these features have dominated world monetary arrangements in different eras. Under the classical gold standard of the 19th century, the major trading countries chose the benefits of free capital flows and the perceived stability of a fixed relation of their currency to gold; of necessity, then, they largely abjured independent monetary policies. Under the Bretton Woods system created at the end of World War II, many countries renounced capital mobility in an attempt to maintain both fixed exchange rates and monetary independence. Currently, among the major industrial regions at least, we have collectively chosen a regime that gives up fixed exchange rates in favor of the other two elements.

## The Case for Floating Exchange Rates

Is the international monetary regime that is in place today the best one for the world? For the economically advanced nations that use the world's three key currencies—the euro, the yen, and the dollar—I believe that the benefits of independent monetary policies and capital mobility greatly exceed whatever costs may result from a regime of floating exchange rates. My view is widely, though not universally, shared among economists and policymakers. In particular, what was once viewed as the principal objection to floating exchange rates, that their adoption would leave the system bereft of a nominal anchor, has proven to be unfounded. Most countries today, including many emerging market and developing nations as well as the advanced industrial countries, have succeeded in establishing a commitment to keeping domestic inflation low and stable, a commitment that has served effectively as a nominal anchor.

A newer critique of floating exchange rates contends that exchange rates are more volatile than can be explained by the macroeconomic fundamentals and, moreover, that this excess volatility has in some cases inhibited international trade (Flood and Rose 1995, Rose 2000, Klein and Shambaugh 2004). Like other asset prices, floating exchange rates do indeed exhibit a great deal of volatility in the very short term, responding to many types of economic news and, sometimes it seems, to no news at all. Whether this very short-term volatility is excessive relative to fundamentals (which are inherently

<sup>1</sup>Obstfeld, Shambaugh, and Taylor (2004) provide historical evidence that supports the empirical relevance of the trilemma.

difficult to observe and measure) is debatable. In any case, this short-term volatility seems unlikely to have substantial effects on trade or capital flows, because short-term fluctuations in exchange rates are easily hedged.

Exchange rates also exhibit long-horizon volatility, of course; but, although the swings in the exchange value of the dollar over the past 30 years have been large, so have been the changes in the global macroeconomic environment. As key components of the international adjustment mechanism, fluctuations in exchange rates and the associated financial flows have often played an important stabilizing role. For example, the sharp rise in the dollar in the late 1990s reflected to an important degree a surge in U.S. productivity growth, which raised perceived rates of return and attracted significant inflows of capital. The capital inflows, the stronger dollar, and the associated rise in imports worked together to permit increased capital investment in the United States during that period, enabling production and incomes to grow without overheating the economy or requiring a sustained rise in interest rates. The value of floating exchange rates as shock absorbers might make their adoption worthwhile even if their volatility did have a chilling effect on trade. However, the sharp rise in trade volumes relative to world gross domestic product in recent decades suggests to me that, at least for the world as a whole, any such chilling effect has likely been minor.

The presumption in favor of allowing the market to determine the exchange rates among the major currencies is strengthened by the fact that a consensus about the appropriate levels at which to peg these currencies would be difficult to obtain. A poor choice of the rates at which currencies would trade could condemn one or more regions to unwanted inflation and the other regions to economic stagnation for a transition period that could easily last several years. The United Kingdom suffered the consequences of a poor choice of peg when it returned to the gold standard after World War I, because an overvalued pound reduced British exports and significantly worsened the country's unemployment problem. The United Kingdom faced analogous problems 65 years later, when it entered the European exchange rate mechanism (ERM) in 1990 at a parity that again disadvantaged British exports and contributed to Great Britain's worst recession in the past 20 years. Nor were these macroeconomic costs compensated for by greater external stability; in both episodes, doubts about the sustainability of the peg generated speculative attacks that ultimately forced the pound off its fixed rate.

Overall, the case for floating exchange rates among the United States, Japan, and the euro zone seems to me to be compelling. For

smaller industrial countries, the case for floating rates may in some instances be less clear-cut, for example, when the bulk of a country's trade is with a single, large trading partner. Generally, though, my sense is that the benefits of floating exchange rates exceed the costs for these countries as well.

## Resolving the Trilemma for Developing Countries

Much more controversial is the question of how developing and emerging market countries should resolve the trilemma. Some might argue against these countries' choosing to allow free capital mobility on the grounds that rapid reversals in international capital flows have induced balance-of-payments crises and difficult domestic adjustments for them in the past. But even those most concerned about potential instability in international capital flows would have to admit that comprehensive capital controls, if applied for any extended period, might solve one problem at the cost of creating a more serious one—namely, the inhibition of growth and development that occurs when nations lack access to international capital markets. At best, then, restrictions on capital mobility should be viewed as a temporary expedient, a second-best or third-best solution to the problems presented by flawed or immature institutions in a nation at early or intermediate stages of development. In the medium run, the better approach—admittedly, one not always so easy to implement—is to commit to making the nation's legal, regulatory, and fiscal framework stronger and more transparent. If foreign investors are thus reassured that their capital will be employed efficiently and its returns repatriated smoothly, the risks of capital flow reversals under a regime of free capital mobility should be much reduced.

If we agree that every country should set a goal of achieving at least some degree of capital mobility, then the trilemma for developing countries ultimately boils down to the choice between flexible exchange rates (and the associated independence of monetary policy) and fixed rates (which do not allow monetary independence). In the remainder of this article I will focus on that choice. I should acknowledge immediately that to state the choice as one of "fixed versus floating" is to oversimplify. Both regimes are actually broad categories, each of which contains a number of variants. Fixed exchange rates are almost never irrevocably fixed. For example, crawling pegs allow the rate to be adjusted in a controlled manner, while some putatively fixed rates are actually reset at frequent intervals, either as an instrument of policy or under external pressure. So-called hard pegs, including currency boards and dollarization, may draw

credibility from various institutional impediments to changing the rate; but even full dollarization can be reversed, as Liberia proved in 1982.<sup>2</sup> Floating exchange rates cover an even wider range of policy behavior than fixed rates—from full reliance on the foreign exchange market for the determination of the exchange rate to a carefully managed float.

So what should developing countries do about the exchange rate? Theory suggests that any group of countries whose economic structures and trade linkages satisfy the requirements of an optimum currency area, in the sense of Mundell (1961), would be well served by fixing the exchange rates among their currencies or, even better, by forming a currency union.<sup>3</sup> However, in practice, empirical analyses have generally been unsuccessful at identifying multicountry regions of any size that meet the criteria for an optimum currency area. Indeed, some studies have concluded that even the United States and the European Union, the largest currency unions, are themselves not optimum currency areas.<sup>4</sup> Plausibly, political rather than economic considerations—namely, the desire to form a more perfect union—underlay the decisions of each of these entities to adopt a common currency.

European economic integration has been motivated to a significant degree by a desire to make a repeat of the destructive conflicts of the 20th century impossible. In the fledgling United States, the desire to strengthen the central government was a principal reason behind Alexander Hamilton's advocacy of a common currency and common national debt. Recent research has pointed out the interesting possibility that the formation of a currency union, by promoting trade and economic integration among its members, may lead the criteria for an optimum currency area among the participating countries to be satisfied after the fact even if not before (Frankel and Rose 2002). Of course, to justify a currency union on this basis requires the ability to forecast how linkages among the participants will evolve under the common currency—a difficult undertaking indeed.

<sup>2</sup>When the parity is nominally fixed but can be varied, and if capital flows are less than perfectly free, monetary policy under a fixed exchange rate may have a degree of independence; thus, the resolution of the trilemma may not be a stark choice of two of the three elements but a partial adoption of each.

<sup>3</sup>An optimum currency area is a region in which labor and capital are internally mobile and subregions tend to be affected by similar shocks. As Mundell (1961) first argued, in this situation the shock-absorbing benefits of flexible exchange rates are outweighed by the reduction in transactions costs and in uncertainty provided by fixed exchange rates or a common currency.

<sup>4</sup>See, for example, Bayoumi and Eichengreen (1993) and Ghosh and Wolf (1994).

Besides countries well-suited for a currency union, a second group of countries that might conceivably be better off with a fixed exchange rate, at least for a time, are the very poorest and least developed countries that may lack the institutional infrastructure to effectively operate an independent monetary policy. In these countries, a hard peg or even the adoption of the currency of a major trading partner—sometimes known as dollarization, although the term also refers to cases in which the currency adopted is one other than the dollar—may be policy options worth considering. (I want to be clear that I am speaking generally and am not advocating that other countries adopt the U.S. currency.) Although dollarization has the advantage of making monetary policy essentially automatic and should be an effective device for controlling inflation, one is struck by the fact that so few countries have chosen this approach. Costs of dollarization include the loss of revenue from money creation and the reduced ability of the central bank to serve as a lender of last resort. But perhaps the most important impediment to dollarization is that, in giving up their own currency, the country's citizens may feel that they are losing an important symbol of their nation's sovereignty and pride.

For other developing and emerging market countries, I would argue that the best course is generally to let the exchange rate float freely and to make low and stable inflation a principal focus of monetary policy. As I have already suggested, this approach makes the targeted inflation rate, and not the exchange rate or some other variable, the nominal anchor of the system. An important reason for making the inflation rate (more precisely, the price level) the nominal anchor is that the general price level is more directly linked to economic welfare than is the exchange rate. Domestic price stability improves the operation of markets, reduces the costs associated with economizing on money holdings and with changing prices, lessens distortions associated with imperfect indexing of the tax system and the accounting system, and aids long-term planning. As I have also already noted, concerns about the feasibility of this approach have been put to rest by the experience of the past decade or so. Central banks in many countries, with either an explicit or an implicit inflation target, have demonstrated the capacity to keep inflation low and stable. Indeed, recent research suggests that the combination of an inflation target, central bank independence, and a market-determined exchange rate tends to reduce variability in both inflation and output, even in small open economies such as Finland and New Zealand (Truman 2003). To be clear, a focus on domestic inflation does not imply that policymakers must entirely ignore the exchange rate; particularly in small open economies, stabilization of the domestic price

level may entail some “leaning against the wind” with respect to exchange rate movements because of their influence on domestic prices. This behavior does not imply that exchange rate stabilization is an independent objective, however, and should price stability and exchange rate stability come into conflict, it is the latter that should be jettisoned.

In contrast to floating rates, fixed exchange rates—rather than being a mechanism for reducing macroeconomic instability—have often been a source of instability. Historically, governments have often defended their fixed parity even after the overvaluation of the exchange rate became obvious, leading to losses of foreign exchange reserves, a balance-of-payments crisis, and difficult domestic adjustments. Some observers have suggested that the solution to this problem is to tie the government’s hands even more forcefully by imposing a harder peg—for example, by means of a currency board or dollarization. But market participants know that promises to maintain a fixed rate are almost never irrevocable, and so a speculative attack is always possible (as Argentina recently learned, for example). Another strategy for deterring speculative attacks on a fixed exchange rate is to build a “war chest” of foreign currency reserves. To be effective in today’s world of highly mobile capital, the war chest may have to be sizable indeed; and for countries with large government debts and high domestic interest rates, holding great quantities of low-yielding reserves can have serious fiscal consequences. In any case, strategies to increase the defensibility of the peg ignore the broader issue of the role of the exchange rate in macroeconomic adjustment. For an individual country, forcing adjustment to a misvalued exchange rate through domestic price changes is likely to be far more difficult and costly than an adjustment occurring through exchange rate depreciation or appreciation. For the world as a whole, macroeconomic adjustment may likewise be impeded if economically important countries attempt to maintain pegs at levels that differ from those dictated by fundamentals.

If fixed exchange rates bear such risks, what explains their continued existence? One traditional argument in favor of fixed exchange rates for developing countries focuses on their usefulness in so-called heterodox programs for overcoming high inflation.<sup>5</sup> According to this

<sup>5</sup>Sargent (1982) notes the role of exchange rate stabilization in ending the European hyperinflations of the 1920s. Analysts of more recent stabilization programs in developing countries have observed that even if exchange rate-based policies succeed in reducing inflation initially, fixing the exchange rate may lead to subsequent problems (Vegh 1992, Dornbusch and Warner 1994).

view, the advantage of fixing the exchange rate as one element of an anti-inflation program (along with fiscal reforms and other policy changes) is that fixing the rate is more visible, more credible, and easier to explain than a commitment to stabilizing prices directly. Even if we grant a role for a fixed exchange rate in combating high inflation, however, this argument provides no rationale for fixing the rate indefinitely. If the program is successful and the inflationary psychology is broken, nothing prevents a transition from targeting the exchange rate to targeting inflation. Two countries with chronic inflation problems, Argentina and Brazil, did not experience a sustained resurgence of high inflation when they abandoned fixed rates in recent years. Brazil now targets inflation, and by some reports Argentina has considered the option. Israel broke the back of its hyperinflation in the mid-1980s with the aid of a fixed exchange rate but then made a gradual and successful transition to inflation targeting. And, of course, this argument provides no rationale for the use of fixed exchange rates by countries, such as the East Asian emerging market countries, that have not experienced episodes of high inflation.

An interesting recent explanation for the continued existence of fixed exchange rates is the so-called fear-of-floating phenomenon (Calvo and Reinhart 2000). According to this view, the poor credibility of policymakers in some countries implies that the exchange rate, if left unmanaged, would prove excessively volatile. High exchange rate volatility could prove very harmful in these countries, for at least two reasons. First, the openness of these economies to trade, coupled with the fact that the exchange rate may serve as a focal point for inflation expectations, may imply that exchange rate volatility translates quickly into instability in consumer prices. Second, because firms and households in these countries often borrow in foreign currencies but receive revenues and incomes in the domestic currency, swings in the exchange rate have major effects on the net worth of these borrowers. In particular, a sharp devaluation, by raising the value of foreign liabilities relative to domestic assets, might bankrupt large segments of the economy, with severe financial and economic implications. According to the fear-of-floating hypothesis, the severe consequences of exchange rate volatility in these countries may lead policymakers to manage their currencies quite closely to damp volatility, no matter what the putative exchange rate regime.

If we assume that the fear-of-floating hypothesis accurately describes behavior, what are the implications? Some have argued that, given the unwillingness to float, countries would be better off dollarizing or taking other measures to achieve a hard peg. This approach would have the benefits (the argument goes) of making explicit the

country's implicit policy, making a disruptive devaluation less likely, and, consequently, possibly reducing the risk premium that borrowers in the country must pay to borrow abroad. I have already expressed reservations about so-called hard pegs for developing countries: Though less so than conventional pegs, they remain subject to speculative attacks, and they may make domestic macroeconomic adjustment more difficult. They also constrain the central bank's ability to act as a lender of last resort in the event of a banking crisis. Moreover, the small amount of available evidence does not favor the view that a hard peg will significantly reduce the risk premium a country must pay on international loans; for example, the dollarized nations of El Salvador and Panama do not appear to be paying lower interest rate premiums on their debt than other similarly situated countries. Furthermore, to the extent that a hard peg encourages foreign-currency borrowing, the costs of devaluation, should it come, may be greatly increased.

One may also question whether the fear of floating is a permanent and irremediable condition. An important underpinning of the fear-of-floating argument is the idea that borrowing and lending in international capital markets must take place only in a few key currencies, condemning most countries to borrow in a currency other than their own and exposing them to heavy losses in the event of a devaluation (Eichengreen and Hausman 1999). In addition, because of creditor mistrust, the borrowing that does take place must be mostly in short-maturity instruments, greatly increasing the risk of a liquidity crisis. Continuing the tradition of colorful nomenclature in international economics, this hypothesis has been labeled "original sin" because the need to borrow in foreign currencies and in short-maturity instruments supposedly constrains all but the largest and wealthiest countries regardless of economic policies and performance. However, recent developments in international capital markets challenge the inevitability of "original sin" (Eichengreen, Hausman, and Panizza 2003; Burger and Warnock 2004). First, some small countries have in fact been able to sell domestic-currency debt to foreigners (examples include New Zealand, Poland, and South Africa). Second, some developing countries have been able to establish active domestic credit markets in which borrowing may take place in long-term, fixed-rate debt, providing a partial substitute for foreign-currency borrowing (examples include Chile, India, and Korea). In both situations, the quality of the country's macroeconomic policies as well as the strength and transparency of its institutional framework have been critically important for improving the access of borrowers to capital. Redemption from "original sin" through good works may thus be

possible. These experiences suggest that, whatever interim arrangements they adopt regarding exchange rates and capital mobility, developing countries would do well to shift their focus to the task of building institutions, protecting property rights, and establishing a sound fiscal and monetary framework, with the ultimate goal of making free capital flows and a floating exchange rate feasible.

### The Bipolar View

In the wake of the Asian crisis, the conventional wisdom asserted that a country should eschew fixed exchange rates in favor of either of the two extremes: a floating rate or a currency union. I agree with this “bipolar view” insofar as I think that a garden-variety fixed exchange rate is, in most instances, the worst of all worlds. Notably, fixed exchange rates often result in irresistible one-way bets for speculators, with crisis and painful economic adjustment the likely result. Large holdings of foreign exchange reserves reduce this risk but create other costs. Currency unions are considerably less prone to speculative attack and may reduce uncertainty and transactions costs in international trade and finance. But, as I have indicated, I believe that floating exchange rates are generally to be preferred either to fixed exchange rates or—except in those relatively rare cases in which the criteria for an optimum currency area are met—to currency unions.

This view seems to be spreading. According to the International Monetary Fund (2004), for example, inflation-targeting countries are becoming more numerous as countries that fix the exchange rate become fewer.<sup>6</sup> Consistent with this observation, average inflation rates in both industrial and developing countries are near their lowest levels in four decades, reflecting the new emphasis in policy. Politicians and policymakers around the world are being converted to the idea that monetary policy should focus on delivering low and stable inflation, with the determination of exchange rates left to free markets.

### Increasing Capital Freedom

The most consequential exception to the general trend toward inflation stabilization, free capital markets, and floating exchange

<sup>6</sup>Reinhart and Rogoff (2002) argue that the move away from pegs is less pronounced in terms of actual policy behavior than in terms of official classifications. Their point is an important one. However, they do not dispute the direction of the change; and, as their analysis compares 1991–2001 with earlier periods, they miss a very recent acceleration toward floating exchange rates and inflation-focused monetary policies.

rates is, of course, China. China currently has relatively strict, though not absolutely impermeable, barriers to capital flows, as well as an exchange rate that is effectively pegged to the U.S. dollar. The governments of the United States and the other G-7 countries have urged China to make the transition to a market-determined exchange rate in the interest of promoting global macroeconomic adjustment. I will add here only that moving toward exchange rate flexibility is in the interest of China as well as the rest of the world. As a large, increasingly wealthy, and increasingly market-oriented economy, China will benefit from the shock-absorber properties of an independent monetary policy and a floating exchange rate. Because it needs capital to fuel its rapid growth and because its citizens would benefit greatly from the opportunity to invest their own savings abroad, China will likewise benefit from increased capital freedom. Finally, the institutional developments needed to support ever more open capital markets, including a strengthened legal and regulatory framework, an increased capacity of its banks to allocate capital to the most productive uses, and a reduced role of the government in investment decisions, are themselves necessary and important steps in China's economic modernization.

The United States will also benefit as China and other East Asian countries make the transition to floating exchange rates and freer capital flows. More open capital accounts and market-determined exchange rates will likely engender greater stability and improved resource allocation in Asia, setting the stage for sustained future growth. The development of the Asian economies will expand export markets for U.S. producers, particularly as independent monetary policies and institutional reform provide scope for stimulating demand by Asian households and firms. Some observers have expressed concern about the effects of reduced reserve accumulation by Asian central banks on U.S. bond markets; however, the U.S. bond market is extremely deep and has shown a remarkable capacity to handle transitions smoothly, particularly when they occur in a gradual and predictable manner. Moreover, under a regime of free capital mobility, private savers in China and the rest of East Asia may well wish to diversify into U.S. assets, including U.S. bonds.

## Conclusion

I have argued for an international system based on the principles of flexible exchange rates, free capital mobility, and independent monetary policies, at least within the great majority of countries. Important complementary elements include free trade and the further development of the "soft" infrastructure—the legal, regulatory, fiscal,

and financial frameworks that characterize advanced economies. The fundamental virtue of this system is its flexibility and adaptability—qualities that will become increasingly essential in a complex and interdependent world.

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