Exchange Rate Regimes in Emerging Markets

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- *A series of major international financial crises in the 1990s, coupled with the recent introduction of the euro in Europe, have led to renewed interest in alternative exchange rate systems.*
- *The choice of exchange rate regime is particularly relevant for emerging-market countries, because other countries are perceived either as having no alternative to their current exchange rate arrangement or as highly unlikely to make a significant change.*
- *This article examines the evolution of exchange rate regimes in emerging markets over the past decade and compares the strengths and weaknesses of the various available systems.*
- *Experience suggests that intermediate regimes, such as the adjustable pegged exchange rate that was popular throughout much of the post–war period, are prone to instability and several other deficiencies.*
- *Some observers have suggested that, in a world of increasing international capital mobility, only the two extreme exchange rate regimes—either a permanently fixed or a freely floating exchange rate regime—are likely to be sustainable. However, these extreme regimes often pose serious problems for emerging-market economies.*
- *Two recently proposed alternatives may warrant serious consideration. The Managed Floating Plus (MFP) and the Baskets, Bands, and Crawling Pegs (BBC) regimes try to combine the best elements of both the flexible and fixed exchange rate systems. The more promising of these two alternatives from an emerging-market perspective would seem to be the MFP.*

The choice of exchange rate regime has been a subject of ongoing debate in international economics. This debate has been renewed in recent years because of two main factors. First, unsustainable exchange rate regimes were widely perceived to have been one of the causes in a series of economic crises, including the Exchange Rate Mechanism (ERM) crisis in 1992, the Mexican peso crisis in 1994–95, and the Asian crisis in 1997–98. This has led some economists to suggest that, in a world of increasing international capital mobility, only the two extreme exchange rate regimes are likely to be sustainable—either a permanently fixed exchange rate regime (i.e., a "hard fix") such as a currency board or monetary union, or a freely floating exchange rate regime. This proposition, known as the hollowing-out hypothesis, or the bipolar view, is gaining popularity. It is not, however, universally accepted. Indeed, some economists believe that intermediate regimes such as the adjustable pegged exchange rate will continue to be a viable option, especially for emerging markets. Second, certain experiments with new arrangements over the past decade, such as the European Economic and Monetary Union (EMU), dollarization in Ecuador and El Salvador, and currency boards in Hong Kong and Estonia, have reinforced the view that hard fixes may be the best exchange rate arrangement for some countries.

Although the choice of exchange rate regime is a topic of interest for all countries, it is considered particularly relevant for emerging markets, because other countries are perceived either as having no alternative to their current exchange rate arrangement or as highly unlikely to make a significant change. The former group, those with no viable alternative, includes countries that are either too small or too underdeveloped to entertain other options; the latter, those who are unlikely to change, are mainly industrialized countries that have tended to settle at one of the two extremes—

either opting for a freely floating currency or moving to a common currency such as the euro.

Emerging markets are also regarded as an interesting group by those who hold the bipolar view because these markets are in the process of integrating into global capital markets and are thus viewed as potentially being drawn towards one of the two poles. The choice of exchange rate regime for emerging markets is thus receiving more attention, both in the literature and in policy circles. In this article, we review the evolution of exchange rate regimes in emerging markets over the past decade, discussing the factors that determine how such countries make their choices and examining the available options.

Evolution of Exchange Rate Regimes in Emerging Markets

Proponents of the bipolar view, including Obstfeld and Rogoff (1995) and Eichengreen (1998), predict that countries that have integrated, or are integrating, their domestic capital markets with global capital markets will be unable to sustain intermediate regimes and will be forced to choose one of the two extremes: either a hard fix or a freely floating exchange rate regime. In their opinion, the middle ground—made up of adjustable (soft) pegs—will eventually vanish for countries that are open to international capital flows. Other authors, however, disagree. Williamson (2000), for example, believes that intermediate regimes are, and will continue to be, a viable option for emerging markets. Masson (2001) has tested the bipolar hypothesis directly, using historical data, and finds that intermediate regimes are no more likely to disappear than freely floating or firmly fixed exchange rate systems. This section reviews the evidence supporting the bipolar hypothesis, looking at the evolution of exchange rate regimes in emerging markets over the past decade.

Fischer (2001) documented the case for the bipolar view by examining the evolution of exchange rate regimes in a large sample of countries over the 1990s. His evidence identifies a trend away from intermediate regimes and towards floating regimes, but does not go so far as to suggest that the middle is vanishing, except for industrialized countries.[1] Of the 185 countries in the sample, one-third had intermediate regimes in 1999, down from nearly two-thirds (62%) in 1991. Yet despite this substantial decrease in the number of countries with intermediate regimes throughout the 1990s, there is currently no evidence to suggest that they are about to disappear. Hard fixes also became more popular throughout the 1990s, largely due to the creation of the EMU. Notwithstanding this unique event, hard fixes only increased from 16 per cent to 24 per cent of total regimes over the 1990s. In emerging-market countries, intermediate regimes declined from 64 per cent to 42 per cent, whereas floating regimes increased from 30 per cent to 48 per cent; the remaining 10 per cent were hard fixes. Thus, in 1999, there were almost as many intermediate regimes as there were floating regimes in emerging markets.

Fischer's work, like most of the studies in this literature, is based on the so-called "official classification" of exchange rate regimes. The official classification uses information collected by the International Monetary Fund (IMF) and relies on self-identification by member countries.[2] No effort is made, however, to ensure that this *de jure* classification is consistent with actual practice. As a consequence, the official classification suffers from important measurement problems that have been well documented in the literature. Levy-Yeyati and Sturzenegger (1999), for example, found that 26 per cent of the countries they examined follow an exchange rate arrangement that is different from their *de jure* regime. Calvo and Reinhart (2002), using more traditional economic analysis and taking into account movements in commodity prices, arrive at a similar conclusion. They focus on countries that officially claim to be on a floating exchange rate regime, and find that, in most cases, these countries have not allowed their exchange rate to float freely. They interpret their findings as evidence of "fear of floating."

Bailliu, Lafrance, and Perrault (2001) developed an alternative classification scheme that they believe better reflects the degree of exchange rate flexibility in emerging markets. This classification scheme is based on volatility in the observed nominal exchange rate and takes into account external shocks and revaluations. They, too, find substantial differences in how exchange rate regimes are classified, depending on which methodology is used. Finally, Reinhart and Rogoff (2002) reclassify exchange rate regimes by focusing on market-determined parallel exchange rates; their results also suggest the presence of measurement error in the official classification. In general,

1. Indeed, as is discussed in more detail on p. 21, almost all industrialized countries have exchange rate regimes at one of the two extremes.

2. The IMF publishes this classification every year in its *Annual Report(s) on Exchange Arrangements and Exchange Restrictions* (IMF 1960–2000).

studies using alternative classification schemes tend to find less hollowing out of the intermediate regimes than studies based on the official classification.

In summary, although the evidence to date shows that the popularity of intermediate regimes declined in the 1990s, it is unclear at this point whether they are in the process of becoming extinct. In our view, the strongest evidence for the bipolar view comes from the industrialized countries, where most have adopted exchange rate regimes at one of the two extremes. For emerging markets, however, intermediate regimes remain a popular choice—though less so than a decade ago. Of course, any analysis of the evolution of exchange rate regimes in emerging markets must be interpreted with caution, given the measurement problems noted above.[3]

Choice of Exchange Rate Regime in Emerging Markets

Central to the debate over the choice of exchange rate regime is the question of whether countries are free to choose any regime they want, or whether they are instead forced to adopt a particular regime or to choose among a limited number of options. Various factors may influence which options are available to a particular country. The literature examining the determinants of the choice of exchange rate regime in emerging markets has emphasized the following factors: international financial market integration, macroeconomic performance, financial sector development, and political economy considerations.

A recurring theme in the literature is that countries with important links to global financial markets cannot sustain a pegged exchange rate and must choose either a hard fix or a floating exchange rate regime. This belief is linked to the "impossible trinity," which stipulates that a country can choose any two of the following goals, but not all three: a pegged exchange rate, monetary policy independence, and international financial market integration. A country that tries to achieve the impossible trinity will eventually be forced off its pegged exchange rate or have to sacrifice one of the other two elements. In the 1990s, many countries with fixed but adjustable exchange rate regimes were forced to abandon them because the regimes had become unsustainable, and a costly currency crisis ensued. The economic and social consequences of these crises have been considerable, particularly when the currency crisis was associated with a banking crisis.[4] In this regard, it is important to note that emerging markets that maintained greater exchange rate flexibility generally fared better than those with pegged arrangements (IMF 2000: 21).

The desirability of an exchange rate regime, however, should be based on how it performs throughout good times and bad, and not just during a crisis. Although economic theory suggests that the nature of the exchange rate regime may influence macroeconomic performance, the theory yields few clear-cut predictions. Empirical research in this area has focused on the possible effects of exchange rate regimes on output variability, inflation performance, and economic growth. Ghosh et al. (1997) found no systematic differences in growth rates or output volatility across exchange rate regimes in a sample of 136 countries over the period 1960–90. Inflation, in contrast, tended to be lower and less volatile in fixed as opposed to flexible exchange rate regimes[5]—a result confirmed by the IMF (1997) when it extended the period of analysis to the mid-1990s.[6] Two recent papers that develop alternative classification schemes, however, find evidence linking exchange rate regimes and growth. Bailliu, Lafrance, and Perrault (2001), in their study of 25 emerging-market economies over the period 1973–98, uncovered evidence that more flexible exchange rate arrangements are associated with higher economic growth, but only for countries that are relatively open to international capital flows and, to a lesser extent, have well-developed financial markets. Similarly, Levy-Yeyati and Sturzenegger (2001) found that less-flexible exchange rate regimes are associated with slower growth in developing countries; for industrialized countries, they found that the regime type has no significant impact on growth.

3. The IMF's recognition that there are problems with the official classification is reflected in their recent efforts to revise it (IMF 1999).

4. By one estimate, the direct financial cost to governments of resolving banking crises in developing countries over the period 1980–95 amounted to approximately US$250 billion (Honohan 1997). In more than a dozen of these cases, the cost to the public sector to resolve the crisis amounted to 10 per cent or more of the country's GDP, and exceeded this level for the countries most affected by the Asian crisis (Goldstein et al. 2000, 2). The macroeconomic costs of currency crises have also been significant. Goldstein et al. (2000, 88) found that it can take from two to three years for economic growth to return to its pre–crisis average.

5. Whether this is because fixed exchange rates reduce volatility, or simply that low-volatility countries tend to choose fixed exchange rates, is unclear.

6. The latter study, however, did not control for other determinants of growth.

All of these studies are based on a tripartite classification scheme that distinguishes between fixed, intermediate, and flexible exchange rate regimes. In this classification scheme, however, two of the categories (intermediate and flexible) characterize only the exchange rate regime, whereas the third (fixed) characterizes *both* the exchange rate regime and the monetary policy framework because, in the latter, the exchange rate is the target of monetary policy. The failure to account for this discrepancy may result in an inaccurate assessment of the effects of alternative exchange rate regimes on macroeconomic performance. Laidler (1999, 2002) has written extensively on this issue and notes that a floating exchange rate, in itself, does not constitute a "coherent monetary order." Absent a nominal anchor, such as a medium-term inflation target, there is nothing to ground inflation expectations or to condition monetary policy actions. It is therefore not surprising in these situations that floating exchange rates fail to deliver some of the expected benefits.

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Bailliu, Lafrance, and Perrault (2002) addressed this issue by refining their classification scheme to account for different monetary policy frameworks. They examined the impact of exchange rate arrangements on growth using a panel-data set of 60 countries over the period 1973–98 and found that it is the presence of a strong monetary policy framework, rather than the type of exchange rate regime per se, that is important for economic growth.

The literature has also focused on financial sector development as an important determinant in the choice of exchange rate regime. A sound and well-developed financial sector is often considered an important precondition for any country that wants to float, since flexible exchange rates are generally associated with increased volatility in the nominal exchange rate. And the latter can have damaging effects on the real economy unless the financial sector is able to absorb exchange rate shocks and provide agents with appropriate hedging instruments.[7]

Many emerging-market economies have shallow capital markets, and thus may find it difficult to manage a flexible exchange rate regime. Indeed, some authors (Aizenman and Hausmann 2000) argue that, because of the state of their financial markets, the gains from fixing the exchange rate may be greater for emerging markets than for industrialized countries. However, the combination of an underdeveloped financial sector and a fixed exchange rate regime can also be problematic, since it can result in a banking crisis. As Chang and Velasco (2000) argue, a hard fix may make a balance-of-payments crisis less likely only by making a banking crisis more likely. Eichengreen and Hausmann (1999) suggest that financial markets characterized by "original sin" can be problematic under both fixed and flexible exchange rate regimes. The term original sin is used to denote a country that is unable to borrow abroad (or even long term in its own domestic market), using instruments denominated in its domestic currency, owing to a history of poor macroeconomic policies (hence the original sin). As a result, all long-term domestic investments in such an economy will be characterized either by a currency mismatch or a maturity mismatch. Eichengreen and Hausmann recommend that economies characterized by original sin may want to consider dollarization.[8]

Political economy considerations are sometimes also a factor in the choice of exchange rate regime. Political economy theories suggest that a country lacking political stability has an incentive, *ceteris paribus*, to let its exchange rate float, since it will be difficult for the government to gather support for the unpopular measures that may be required to defend a peg (Poirson 2001). On the other hand, some countries may be forced to fix to or adopt a hard currency if they have lost all credibility in conducting monetary policy. This argument was put forward by those in favour of dollarization in the Ecuadorean case. In cases like this,

7. Bordo and Flandreau (2001) find evidence for the post–Bretton Woods period that suggests that countries with more developed financial systems tend to have floating exchange rate regimes.

8. Dollarization is the modern term for arrangements where the currency of a major industrial country (e.g., the United States) is used as the national currency, serving as a unit of account, medium of exchange, and store of value.

the best, and sometimes the only, option may be to "tie the hands" of the central bank or government by importing the credible monetary policy of another country.

What Options Are Available?

Lessons from industrialized countries

One strategy that emerging markets might consider in choosing an exchange rate system is to trade on the experience of industrialized countries. Guidance from these countries' experiences concerning the most promising alternatives might allow emerging markets to avoid some of the pitfalls that the industrialized countries encountered in their search for a viable system.

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The principal lesson that a country might take from such an exercise is that intermediate solutions are no longer practicable, and that only the two extremes should be considered. Indeed, with the exception of Denmark, every country currently classified by the IMF as industrialized now operates under either a freely floating exchange rate system or a full currency union. Canada, Japan, the United Kingdom, and the United States are prime examples of the former, while the 12 European countries constituting the EMU are obvious examples of the latter. The middle ground, as represented by the system of adjustable pegs established under the Bretton Woods system, has been shown to be inherently unstable. While it was originally viewed as a promising compromise that combined the best elements of fixed and flexible exchange rate systems, it was ultimately shown to offer the worst of both worlds. Necessary adjustments in parity values were invariably delayed, imposing significant costs on the deficit country and its trading partners, and in addition invited one-sided, destabilizing speculation.

Although many emerging markets appear to have opted for similar, Bretton Woods-style solutions, pegged exchange rates have few defenders. They are viewed by many as—at best—a useful stop-gap measure, suitable only for countries that ultimately hope to shift to a more stable and permanent arrangement. Rogoff (1998) has likened pegged exchange rate systems to "lightning rods" that attract financial crises. He, and several other authors, have noted that the half-life of a pegged exchange rate is typically less than a year, and that few survive longer than three years without a major collapse. In short, intermediate regimes based on the concept of fixed yet adjustable parities do not appear very promising, except as a temporary expedient.

Lessons from very small economies

Although the earlier experiences of industrialized countries are instructive, some observers have suggested that they have limited applicability for other economies. Some developing economies, for example, are so small and open that they have very little choice with regard to the exchange rate system under which they operate. They lack the institutions and infrastructure necessary to conduct an effective monetary policy, and they are also unable to benefit from the insulating properties of a flexible exchange rate, owing to the specialized nature of their output and their dependence on imports. The microeconomic advantages that these economies realize from a fixed exchange rate, in the form of lower transactions costs and reduced exchange rate risk, more than outweigh any macroeconomic benefits they might gain from a flexible exchange rate in terms of increased monetary policy independence and protection from external shocks.

Economies in this situation almost always opt for dollarization (see footnote 8), which is an extreme form of exchange-rate fixing. At latest count, more than 50 small economies, dependencies, and protectorates now operate under dollarization (Rose 2000). Frankel and Rose (2002) suggest that the net benefits of adopting another country's currency can be substantial, as measured by the resulting growth in international trade and national income. Although their results have been questioned by several authors, and are mainly applicable to economies that are extremely

small,[9] Frankel and Rose found that dollarized economies had bilateral trade flows that were, on average, 300 per cent higher than economies that continued to use their own currencies.

The dangers of a hard fix: Dollarization and currency boards

Based on this experience, a strong case could be made for firmly fixing the exchange rates of all emerging countries—if not completely dollarizing the entire developing world. Unfortunately, there is reason to believe that the payoffs from pursuing such a strategy would be substantially smaller than those reported by Frankel and Rose—especially for emerging markets that are larger and more developed than those described above. These economies, unlike the ones studied by Frankel and Rose, have more discretion with regard to the currency arrangement they choose; it is not forced upon them. They also have more to lose, in terms of forgone independence and insulation from external shocks, if they opt for a firmly fixed exchange rate.

As far as the possibility of a monetary union is concerned, few emerging markets have the kind of political or economic influence that the 12 members of the EMU do, which allows the latter to operate as full partners in a monetary union, sharing in policy decisions as well as the seigniorage that accrues from issuing currency.[10] Hence dollarization is the only "hard fix" option that most emerging markets have available. Emerging markets that decide to dollarize, however, lose any monetary policy independence they might have had under more flexible arrangements. Interest rate and credit decisions will be made by the lead country, taking its own economic interests into account, and ignoring any adverse consequences these decisions might have for those who have chosen to use its money. This does not represent a serious cost, if policy independence has been abused in the past and the domestic authorities have lost all credibility. In situations like this, the loss of independence and the ability to "import" someone else's policy is an obvious benefit.

The difficulty associated with reversing the dollarization regime is both one of its major attractions and its largest cost. Although the immediate improvement in policy credibility and the reduction in currency risk can be significant, the dollarized economy effectively forfeits any right to regain control of its own monetary destiny. The resulting increase in macroeconomic adjustment costs could be substantial. The short-run cyclical movements of the industrialized country whose currency has been imported are likely to be quite different than those of the emerging market. In addition, the two economies are, by definition, at very different stages of development and will have to confront different structural pressures over time. Without a floating exchange rate to accommodate these tensions and to offset some of the shocks, the burden of adjustment will fall largely on domestic prices and wages, which are seldom sufficiently flexible (at least in a downward direction) to ease the adjustment process.[11]

The emerging market also sacrifices any seigniorage it would have earned in future years by issuing its own currency (a form of zero-interest debt), as well as its ability to serve as an effective lender of last resort. Many countries without an efficient tax system rely on seigniorage for a significant part of their government revenue, and unless the industrialized country is willing to share its seigniorage, other measures will have to be introduced to make up the shortfall. Without the ability to generate liquidity on demand, the emerging economy will also find it difficult to provide emergency assistance to its domestic banks and financial markets when they face speculative pressures. Its only alternative will be to draw down existing foreign reserves, or issue additional debt in the foreign currency. If the emerging market has a solid credit rating, this might be sufficient. Otherwise, the domestic financial system will be vulnerable to speculative attack and unanticipated shocks.

This is not to say that there are no benefits associated with dollarization. Currency risk vis-à-vis the new medium of exchange is effectively eliminated, as are any currency conversion costs and the need for hedging. It is important to realize, however, that in a world

9. Many of the economies in the Frankel and Rose study have populations of less than 100,000.

10. While a number of developing countries have formed their own currency unions (for example, the Communauté Financière Africaine [CFA] franc zone in Africa or the Eastern Caribbean Currency Union in the Caribbean), they have no effective control over monetary policy within the union because their currencies are tied to the currency of a major trading partner outside the currency union.

11. This happened in Argentina after it slipped into a recession in the late 1990s following a series of negative external shocks. Most of the adjustment came through price deflation—a very slow and painful process, given that labour markets in Argentina are quite rigid. Ultimately, the process was too slow, and Argentina was forced to abandon its currency board and allow its currency to float. (The concept of currency boards is discussed on p. 23.)

where the three major currencies—the U.S. dollar, the Japanese yen, and the euro—continue to float, any emerging market that decides to tie itself to one of them is, by definition, floating against the others. Any currency risk and conversion costs related to the other two currencies will therefore remain. For countries like Panama, whose international trade is concentrated in one major country (the United States), this does not pose a problem. For other countries with more diversified trading patterns, such as Ecuador, the implications could be serious. Both of these countries have dollarized, with differing degrees of success. While Ecuador's decision to adopt the dollar is quite recent, the results to date have not been encouraging. Panama's experience with dollarization goes back to 1904 and has, by most accounts, been more favourable.[12]

In a world where the three major currencies—the U.S. dollar, the Japanese yen, and the euro—continue to float, any emerging market that decides to tie itself to one of them is, by definition, floating against the others.

Some of these problems can be avoided by establishing a currency board as opposed to dollarizing. A currency board involves a firm commitment, often embedded in legislation or even in the country's constitution, to permanently fix the external value of the domestic currency to another country's currency. In addition, the emerging economy promises to make its domestic currency and the foreign currency freely convertible. In order to ensure the credibility of the regime, the emerging economy also promises to tie the domestic money base to its reserve holdings of foreign currency. This arrangement shares many of the features of full dollarization, except that the domestic currency continues to circulate, thereby allowing the emerging economy to keep its seigniorage. A currency board system is also somewhat easier to reverse or exit than a fully dollarized system. The last feature can prove something of a handicap, however, and can undermine the credibility of the arrangement, especially in the midst of a financial crisis.[13] The recent experience of Argentina suggests that the protection provided by a currency board can indeed be very limited.

Fear of floating

If hard fixes are not the answer, perhaps a freely floating exchange rate might represent a more promising alternative. Unfortunately, post–war experience with freely floating exchange rates indicates that this extreme arrangement can also suffer from certain deficiencies, at least in the context of emerging markets. Some observers, in fact, have suggested that very few economies—either industrial or emerging—truly float.[14] As discussed earlier, many of the countries that are officially classified as operating under a flexible exchange rate display an evident fear of floating. They regularly intervene to help stabilize their exchange rate and appear willing to subvert other domestic objectives, such as price stability and full employment, in order to maintain a particular exchange rate level. Moreover, the problems seem more severe, and the deviations from true flexibility more egregious, in the case of emerging-market economies. Observed movements in the exchange rates of supposed "floaters" are often similar in size and general behaviour to countries operating under a pegged exchange rate, and in some instances display even less variability.

The reasons for this fear of floating can be linked to three factors, according to Calvo and Reinhart (2002). The first factor is a deep-seated distrust of markets, which many emerging-market economies believe move in perverse and unpredictable ways. The second factor is that depreciations in these countries tend to be associated with economic contractions rather than expansions. Instead of stabilizing growth and employment in response to an external shock, therefore, the resulting exchange rate movements tend to exacerbate the pressures, leading to more severe economic dislocation. This is due in part to the absence of a credible mechanism, such as an inflation target, with which to anchor expectations.[15] In addition, a significant

12. Edwards (2001) presents a much less positive picture for Panama and for most other countries that have either dollarized or set up currency boards.

13. A currency board can also raise risks for financial stability, since there is a reduced incentive to hedge foreign currency positions under such a regime. Should the currency board collapse, this currency mismatch can cause serious problems, as in Argentina.

14. See Calvo and Reinhart (2002).

15. See Laidler (1999, 2002).

portion of government and private sector debt in many of these economies is often denominated in a foreign currency, causing debt-servicing costs to rise every time the domestic currency depreciates. The third factor concerns the demonstrated inability of many emerging economies to conduct effective, countercyclical monetary policies. In many cases, the monetary policy independence that a floating exchange rate confers has simply led to chronic inflation. Monetary conditions tend to tighten, therefore, in reaction to any economic weakness or exchange rate depreciation, rather than easing to help offset the shock.[16]

Since floating exchange rates are perceived as offering few benefits in terms of effective macroeconomic insulation, Calvo and Reinhart argue that it is natural for emerging-market economies to place greater importance on exchange rate stabilization. The sizable gains realized through lower transactions costs and reduced currency risk in these open economies are believed to easily outweigh any advantages that might be realized from enhanced policy independence. Indeed, the latter is often regarded as a cost rather than a benefit.

If pegged exchange rates have a checkered history and lead to inevitable collapse, and the extremes of fully fixed or freely floating exchange rates are considered problematic, what viable alternatives do emerging markets have? Is there any exchange rate regime that might be regarded as either desirable or feasible?

New intermediate solutions

Two proposals have recently been advanced for emerging-market economies that try to overcome the problems noted above. Both involve a return to the middle and try to provide a degree of policy and exchange rate flexibility along with greater exchange market stability.

Baskets, bands, and crawling pegs

The first proposal, baskets, bands, and crawling pegs (BBC), is most closely associated with Williamson (2000) and is actually a synthesis and extension of some ideas that he and others promoted in the 1970s and early 1980s. It consists of three key elements. The first is similar in spirit to the failed Bretton Woods system, but with one important difference. Each emerging market under the Williamson proposal would be encouraged to peg its currency to a *basket* of foreign currencies, as opposed to the currency of a single trading partner. This element is expected to reduce the tensions that invariably arise when the major currencies begin to move in opposite directions.

As part of the second element, emerging markets would be asked to ensure that their pegged exchange rates stayed within a set of symmetric, and reasonably wide, *bands*. This is designed to provide the market with some guidance as to the allowable limits of exchange rate movements, while giving the central bank a fair degree of monetary independence, provided the exchange rate is well within the bands. How protective or aggressive the central bank wants to be in defending the bands would be up to the authorities, but some flexibility might be encouraged in order to avoid the sort of destabilizing one-way speculation that characterized the Bretton Woods system.

The third element in Williamson's proposal concerns the midpoint of the target band, which would be allowed to *crawl* gradually over time, reflecting the authorities' best judgment about the fundamental forces that might be driving the real exchange rate. This "crawling peg" would help relieve the tensions that might otherwise arise, owing to shifting fundamentals, and give the market some useful medium-term guidance as to where the exchange rate might be expected to go, thereby preventing persistent misalignments.

Critics suggest that, while the BBC proposal sounds good in theory, it would inevitably confront many of the same problems that plagued the Bretton Woods system and all its latter-day variants. Decisions concerning the appropriate midpoint of the band and the future level of the crawling peg are inherently difficult, in the absence of any reliable model of the forces that determine the equilibrium exchange rate. Moreover, the same issues of one-way speculation and difficult policy choices would have to be dealt with as soon as the exchange rate approached the upper or lower limits of the band. Softening the commitment to defend these bands might reduce these pressures, but at the risk of increasing market uncertainty about where the authorities thought the rate should be and what action they were prepared to take once the limits were reached. In the limit, the system would simply revert to a loosely managed float—little different than what many of the emerging markets already have. Only a few countries, such as Chile, Colombia, and Israel, have successfully employed a system similar to the BBC. In all three cases, however, it served simply as a transition to a more flexible system based on inflation targeting and full monetary policy independence.

16. The term "monetary conditions" refers to the combined effect of the exchange rate and interest rates on economic activity.

Managed floating plus

Goldstein (2002) has also championed a new exchange rate system for emerging markets, called managed floating plus, or MFP. This system approaches the problem from a slightly different angle than Williamson's BBC, but shares many of its objectives. Like the BBC, the MFP tries to identify a viable middle ground that would give the monetary authorities some policy independence, while eliminating (or at least moderating) some of the excessive volatility that might otherwise be associated with a completely free float.

Monetary authorities . . . would still be allowed to intervene in the foreign exchange market and manage the external value of their currency, but only to the extent that their actions did not compromise the achievement of their inflation objective.

Unlike the BBC proposal, which gives prominence to the exchange rate, the MFP proposal uses a domestic inflation target as the nominal anchor for monetary policy and gives greater attention to stabilizing the domestic economy than to fixing the exchange rate. Monetary authorities, under Goldstein's proposal, would still be allowed to intervene in the foreign exchange market and manage the external value of their currency, but only to the extent that their actions did not compromise the achievement of their inflation objective. Whenever a conflict arose between these two objectives, exchange rate considerations would be forced to give way to domestic price stability.

To minimize the problems of excessive asset-price volatility and vulnerability to financial crises, emerging-market economies would be encouraged to establish comprehensive reporting systems to monitor the level of outstanding public and private debt and the extent of foreign currency exposure. Greater effort would also be made in the context of an MFP to promote the development of domestic capital markets and reduce the economy's dependence on foreign currency borrowing. In addition, emerging markets would be advised to take a measured approach to capital-market liberalization, leaving some capital controls in place until an adequate supervisory and regulatory infrastructure had been established. This sequential strategy to market opening would limit exposure to external shocks and sudden changes in investor sentiment. Capital controls would be treated as a temporary and regrettable expedient, however, and not as a permanent feature of the economy.

Beyond the acceptance of capital controls as a necessary short-term palliative, Goldstein's MFP seems to bear a close resemblance to the floating-rate system many industrialized countries currently have in place. Pure floats, as Calvo and Reinhart have correctly observed, are the exception rather than the rule. Many floaters regularly intervene. The only thing that differentiates them from other, more actively managed regimes is the frequency and scope of their interventions. In the extreme, of course, the MFP becomes indistinguishable from the BBC—it is simply a question of how much emphasis the exchange rate is given. The two intermediate proposals start from opposite ends of the spectrum of exchange rate systems, but can be defined in such a way that they essentially overlap.

Conclusions

For an emerging market that is integrated with global financial markets, neither of the two exchange rate extremes seems to offer an attractive alternative. While the major industrialized countries have indicated a marked preference for either strong fixes or free floats, both of these solutions pose serious problems for countries with less-developed financial markets, limited credibility, and rudimentary supervisory systems. On the other hand, traditional pegged exchange rates based on a fixed parity and narrow fluctuation bands have been shown to be inherently unstable and an open invitation to speculative attacks.

The most promising alternatives for most emerging markets would therefore seem to be the two new intermediate schemes. This is not to suggest that they are equally attractive, however. The MFP exchange rate regime would have to be viewed as the more promising because it combines the desirable features of a flexible exchange rate regime (i.e., monetary policy independence and shock-absorbing properties) with a framework designed to address the major problems that have complicated the implementation of such a regime in emerging markets (i.e., lack of a nominal anchor and vulnerability to sudden exchange rate

movements). In addition, this type of regime has already had some early success with countries such as Brazil, Chile, Mexico, and South Africa. Currency boards and dollarization are mostly useful as a last resort for countries suffering from original sin or too small to be able to have their own currency. Monetary union is a possibility for a few emerging markets, mainly the transition economies in Europe, but this set is rather small. Other options, such as the BBC exchange rate regime, might also be useful, but only as a transition regime, and should only be adopted with a clear exit strategy in mind.

In closing, it is worth emphasizing that no exchange rate system is best for all countries or for all times, and that no regime can act as a substitute for good policies and strong institutions. Indeed, the exchange rate regime should be viewed as part of a coherent monetary order, which is itself an integral part of a sound macroeconomic framework.

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