

# Exchange rate regimes for emerging market economies

*The varied and sometimes dramatic experiences of emerging market economies (EMEs) with exchange rate regimes during the last decade has created much debate about the choice of exchange rate regime for this type of economy. This debate has been dominated by criticism of intermediate regimes such as conventional pegging, and support for floating rate regimes or hard pegs such as a currency board. This article considers issues relevant to this debate. It draws attention to the fact that country-specific characteristics determine the most suitable regime for a country. Consequently, no single exchange rate regime will be the most appropriate for all countries, nor for any country all of the time.*

*An important insight is that the exchange rate regime needs to be compatible with the wider policy framework, and the article highlights the interactive relationship between an exchange rate regime and the wider policy framework, particularly the disciplining role of the regime. In addition, the policy framework needs to be consistent with economic fundamentals. Thus, changes in fundamentals should prompt a review of the policy framework, including the exchange rate regime. From this perspective, all regimes are subject to change should circumstances dictate.*

*Issues of relevance are discussed for each broad category of regime: floating, hard peg and intermediate. Although floating rate regimes and hard pegs commonly attract more approval than intermediate regimes, the article takes a more nuanced view. Furthermore, it highlights practical issues to be taken into account when considering regimes actually pursued by emerging market economies, and trends in regimes. Although the popularity of intermediate regimes has slipped over the past decade, EME experiences with floats and hard pegs remains relatively recent, which cautions against drawing premature conclusions from their evaluation.*

## I Introduction

Since the crises in Latin America and Asia in the second half of the 1990s, the issue of exchange rate regimes in emerging market economies has returned to prominence. In contrast with the focus on *fixed* versus *flexible* regimes in the 1960s and 1970s, the current debate distinguishes between “corner” regimes (in reference to floating rate and hard peg regimes at either end of the continuum of regimes) and “intermediate” or “soft peg” regimes (defined by default as the remainder). See Box I for details. Using this distinction, emerging market economies are frequently advised to adopt a corner regime in order to resolve the tensions resulting from these economies integrating into global financial markets. Underpinning this advice is the observation that the crises in emerging markets in the second half of the 1990s mostly affected countries with intermediate regimes. More recently, because the stricter requirements imposed by hard peg regimes are considered by many observers as acceptable only for a

limited number of countries, floating rate regimes have been advocated over hard peg regimes, giving rise to double bias against intermediate regimes.

Exchange rate regimes matter because they are an important determinant of economic and financial performance through their contribution to the attainment of macroeconomic stability and the preservation of orderly international trade and financial relations. An appropriate regime fosters overall economic stability, as well as sound and sustainable development, and minimises the effects of shocks on the domestic and global economy, for example, by minimising risks to the domestic and global financial system.

This article presents the selection criteria for an exchange rate regime and discusses the role of the regime in the wider policy framework. After considering issues pertinent to each category of regime, it briefly discusses current trends in exchange rate regimes in

## Box I

### Classification of corner and intermediate exchange rate regimes

Classifying regimes is difficult given the wide diversity of regime characteristics. Since grouping regimes can lead to misconceptions about the common characteristics of each group, it is important not to ascribe regime characteristics to the different categories without careful analysis. For ease of discussion and consistency with the classification used in the ongoing debate, the following grouping of regimes is used here.

• *Corner regimes* comprise:

- *Hard peg regimes*, consisting of a) currency board arrangements, under which the monetary authorities pledge to sell foreign currency for domestic currency on demand at a fixed rate, and back the domestic currency with foreign currency for this purpose, and b) the unilateral official adoption of a foreign currency e.g. dollarisation or euroisation. Note that, for the purposes of this article, the term “dollarisation” will be used as a catch-all word for the latter type of regime.
- *Floating rate regimes*, consisting of independent floats and managed floats. Under both types of regime, intervention may occur, but there is no explicit and officially announced commitment. Under independent floats, any intervention is solely to smooth market movements and provide for more orderly market conditions. Under managed floats, intervention may be used to influence the direction of change of the exchange rate, but without a specific exchange rate in mind.
- *Intermediate (or soft peg) regimes* are those under which the authorities aim to achieve a pre-announced or undeclared exchange rate target. This group comprises pegs to another currency or basket of currencies, crawling pegs, and bands. The literature implicitly discusses “single country” or “unilateral” intermediate regimes, a practice which is followed here. The other variant, multilateral regimes, are beyond the scope of this article.

Monetary unions are excluded from the groupings on the grounds that they envisage the adoption of a single currency, and as such, they are not an exchange rate regime.

emerging market economies, along with the relevant caveats, before concluding.

Note that the usage and understanding of “emerging market economies” varies markedly across international fora. The meaning

attached to the term in this article includes economies going through transition in a process of catching up with advanced economies and liberalising their capital account.

## 2 Regime selection criteria

The most appropriate exchange rate regime for any country depends on, and will vary through time according to changes in, the characteristics of that country. The factors considered relevant to the choice of regime have long been deliberated in the literature on the subject, and have changed over time. One strand of this literature, built around the concept of “optimal currency areas”,

considered important characteristics such as capital mobility, the inflation rate differential with major trading partners, the size of the economy and its degree of openness, the geographic and product diversification of trade, labour mobility, the degree of synchronisation of business cycles, and the stage of economic development. Empirical testing of the relationship between these

criteria and exchange rate variability, which in turn indicates suitability to a particular type of regime, has produced mixed results, with the most significance being attached to the inflation rate differential.

Another strand of the literature considered that the nature of shocks (source, frequency and severity) was the major variable in regime choice. The most appropriate regime was considered to be that which best stabilised macroeconomic performance, i.e. minimising volatility in output or containing inflation in the face of such shocks. The view emerged that greater fixity was appropriate where domestic shocks were largely monetary in nature, and greater flexibility more suitable if shocks originated from real factors or externally.

Recently, the literature has focused on the implications for regime choice of the expansion in global capital flows and the increased integration of global financial markets with regard to causing and

transmitting shocks. A common, though not universal conclusion is that floating rate regimes minimise the economic costs of such shocks for the domestic economy and the global financial system. Support for this conclusion is derived from the “inconsistent quartet”, which is the impossibility of having simultaneously openness to trade in goods and services, unrestricted capital flows, autonomy of monetary policy and a fixed exchange rate (see Box 2 for a fuller discussion). The series of crises in the second half of the 1990s affecting emerging market economies pursuing intermediate regimes is held up as evidence of the desirability of corner regimes, in particular floating rate regimes.

Along the way, some criteria have been re-emphasised and other criteria added. The trend towards increasing economic openness has heightened the importance of the exchange rate in the price formation mechanism. It follows that, for small, open economies, the variability of the exchange

## **Box 2**

### **The inconsistent quartet and the two corner solution**

The inconsistent quartet is a key concept linking capital flows to exchange rate regimes. It states that the combination of unrestricted capital flows, openness to trade, a fixed exchange rate and monetary policy autonomy are incompatible. For example, given freely mobile capital and trade openness, the operation of a fixed exchange rate requires that monetary policy be employed to maintain the exchange rate, rather than in the pursuit of a domestic monetary policy objective (including ensuring price stability); if there is a preference for monetary policy autonomy, the exchange rate must be left to float.

This concept is commonly used to support the view that intermediate regimes, in contrast to corner regimes, are not compatible with freely mobile capital. This view may be illustrated by reference to the event of sudden and unexpected capital outflows which exert downward pressure on the exchange rate. Under an intermediate regime, if markets perceive that the authorities are not able to defend the exchange rate (through an interest rate rise or drawings on international reserves), they are likely to launch a speculative attack on the regime and precipitate a forced and potentially costly exit. By contrast, the view prevailed until the recent crisis in Argentina that hard pegs were beyond market doubt: in the case of a currency board, for example, the domestic money supply is backed with foreign reserves, while under a floating rate regime the exchange rate is free to adjust to market pressure.

The essence of this view, which is not unchallenged, is that capital flows to EMEs have become so large and potentially disruptive that the best strategy to limit instability in the domestic economy is to either attempt to suppress the potential for regime disruption by imposing a hard peg regime, or to accommodate the flows with a floating rate regime and allow fluctuations in the exchange rate to relieve pressures.

rate is of greater concern than for large, more closed economies. Of the additional criteria identified as relevant to regime choice, the most pertinent include the degree of regional economic (cyclical and structural convergence) and institutional integration, the depth of financial and foreign exchange markets and the level of reserves. Where present, regional co-operation may significantly alter the cost-benefit considerations in regime choice, and affect the modalities of regime shifts. Some European Union (EU) accession countries provide a clear example of this. In order to cope with the demands of transition from a planned to a market economy, and prepare for EU accession and exchange rate mechanism II (ERM II) membership, some accession countries are moving through various types of regimes with the ultimate

shift being the adoption of the single currency. Regional integration and co-operation is an issue which also confronts other regions such as Asia and Latin America, where the desire to stabilise intra-regional exchange rates to foster trade and capital flows may necessitate reducing volatility and uncertainty in exchange rate movements between integrating countries. Such an objective is more compatible with some form of fixed rate regime than a freely floating regime.

The array of considerations behind regime choice shows that, since economies differ widely and evolve through time, no single exchange rate regime will be suitable for all countries, nor for any country all of the time.

### **3 Interaction between the exchange rate regime and the overall policy framework**

The exchange rate regime is one element of the overall policy framework and, as such, should not be operated in isolation. The policy framework, in order to achieve macroeconomic and financial stability, needs to be consistent. Hence, the exchange rate regime must be compatible with the other elements of the framework, such as monetary, fiscal and structural policies (i.e. policies related to price formation in labour and product markets), as well as the degree of openness of the capital account. In addition, it should also be compatible with the broader institutional background of the country.

The evolution of the policy framework is an interactive process: while the exchange rate regime must be tailored to suit the other policies, it will in turn influence them. This two-way, dynamic interaction is significant on two counts. First, it dispels the notion that both hard or floating regimes do not require further attention once adopted, which leads to the conclusion that no exchange rate regime *per se* constitutes an intrinsic guarantee for macroeconomic and financial

stability. Second, it recognises that the exchange rate regime may have a disciplining effect on other policies. The degree of disciplining effect is determined by both the choice of an external or internal anchor for monetary policy and the degree of control over capital flows. Regarding the use of an external anchor, under hard peg regimes and, to a lesser extent, under intermediate regimes, the country seeks to import policy credibility at the cost of restricting its degree of monetary policy freedom. By contrast, under floating rate arrangements the commitment to the internal anchor forms the basis of policy discipline and directly determines the credibility of the regime. This commitment and credibility rely, to a larger extent than in a framework based on an external anchor, on specific and potentially demanding domestic institutional and operational requirements. Such requirements apply in the first place to monetary policy and its transmission mechanisms (e.g. central bank independence, accountability and transparency, and domestic capital market deepening), but also to the other components of the domestic policy framework (e.g. fiscal

and financial policies). The choice between an external and an internal anchor will depend in the main on the authorities' credibility, policy preferences and capabilities, and the stability of the wider domestic and external environment, including in particular regional integration and co-operation.

Regarding restrictions on capital flows, it could be argued that by shielding policy-makers from the scrutiny of financial markets, capital controls accommodate the pursuit of inappropriate policies, particularly in the fiscal area. In this sense, capital controls soften the disciplining effect of regimes. This calls into question those regimes which owe their sustainability exclusively to the maintenance of capital controls, and raises the issue of how best to remove capital controls. In light of this, countries contemplating capital account liberalisation measures should also review their exchange rate policy. For instance, countries operating intermediate regimes have typically decided to widen the fluctuation band of their peg in the process of liberalising their capital account.

Given the need to preserve consistency, the exchange rate regime must adapt to changes

in policies, the economic environment, and advances in, or desires for, regional integration. This implies that all regimes can be subject to a shift. It is the task of the authorities to effect a regime shift at a minimum cost in terms of output, inflation, and financial stability. This can best be achieved by the development and timely implementation of an exit strategy. If handled adeptly, and provided there are no intervening shocks to damage credibility, the pre-announcement of the shift can help smooth the transition, promote the adjustment of expectations and reassure markets of a timely transition. In the event of a market-forced and disorderly regime shift, the related budgetary (i.e. bank and corporate restructuring) and economic costs (i.e. output loss) are potentially large. What is crucial, however, is that these costs be contained through the adoption of determined policy adjustments designed to confront long-standing macroeconomic or structural problems. Consequently, when evaluating the fallout from a currency crisis, the magnitude of the short-term costs of a disorderly regime shift must be weighed against any long-term benefits from overdue policy reforms that the fallout helped induce.

## **4 Regime-specific issues**

The consideration of factors influencing the choice of regime and the interactive relationship between the chosen regime and the wider policy and institutional framework prompts discussion of the regimes themselves. In this section, each of the regime types is examined, focusing on advantages, major costs and factors pertinent to stability.

### **4.1 Hard peg regimes**

In general, fixed exchange rate regimes are deemed to have two major advantages. First, they reduce transaction costs and exchange rate risk, limiting real exchange rate volatility, which in turn encourages trade and investment. Second, they can provide a

credible external anchor for monetary policy and impart a disciplining effect on other macroeconomic and structural policies. For this reason, they are commonly employed where the capability of a country to conduct an alternative exchange rate or domestically anchored monetary policy is impaired by institutional or operational constraints.

Hard pegs further enhance credibility, even if the types of hard peg regime differ in certain important aspects (see Box 3). Currency board arrangements (CBAs) and dollarisation are underpinned by formal legal and institutional foundations that signal a strong commitment to the regime. A sudden devaluation, re-adjustment of the parity, or total abandonment of the regime at short

### Box 3

#### Distinguishing dollarisation from currency board regimes

Despite their similarities and common classification as hard pegs, formal dollarisation (which here, for the sake of brevity, includes euroisation) differs from an orthodox currency board in a number of important respects:

- Dollarisation is more difficult, operationally and logistically, to reverse, which increases the perception of permanency relative to currency boards, arguably lending dollarisation greater credibility.
- Unlike currency board regimes, dollarisation does not permit a mismatch in the currency denomination of assets and liabilities in the public, banking, corporate or household sector, thereby eliminating the risk of a related run on banks. On this count, dollarisation does not require quite the same degree of strength of the banking sector that is necessary under a currency board.
- Dollarisation requires the political willingness to abandon the domestic currency, and concomitantly, the seigniorage revenues, which are not insignificant.

At present, there are fewer countries willing to dollarise (e.g. Panama, El Salvador and Ecuador) than there are pursuing currency boards (e.g. Hong Kong, Estonia, Lithuania and Bulgaria). This may be traced in part to the unwillingness to relinquish domestic monetary policy instruments on a permanent basis.

notice is considered highly unlikely, except in extreme circumstances. For example, orthodox currency boards are enshrined in law; under normal circumstances, any alteration in the exchange rate parity – let alone an abandonment of the arrangement – needs to be approved by a sizeable parliamentary majority, often in the form of a constitutional amendment. This is also largely true of dollarisation although, of course, in this case there is no exchange rate parity to alter, and there exists the added complication of the logistical and operational difficulties involved in introducing a new currency.

These legal foundations, coupled with the inherent features of the arrangements, are also a source of stability. Orthodox CBAs must typically hold in reserve currency 100% of the monetary base in circulation, since the monetary authority is obliged to exchange unlimited amounts of domestic currency for reserve currency (or vice versa) on demand. In addition, under CBAs, central banks are banned from lending to the government, including the purchase of government bonds, with the result that debt monetisation is impossible. With dollarisation, monetary emission is outside the

control of the domestic authorities. Therefore, both forms of hard pegs take the control of monetary policy out of the hands of domestic authorities. It should nevertheless be added that the authorities, in an attempt to gain policy manoeuvrability, may issue debt to the domestic financial sector, as was the case in Argentina.

The additional credibility provided by hard pegs translates into a number of beneficial developments for the adopting countries. First, both inflation and interest rates should converge to those prevailing in the anchor country. Note, however, that the interest rate differential will not necessarily be eliminated owing to the persistence of country risk (including default risk). This was the case in Argentina, in particular on account of its unsupportive fiscal policy. On account of the inflation and interest rate convergence, hard pegs typically provide fast and successful exchange rate-based stabilisation. In addition, both of the hard arrangements are, in principle, more robust than conventional unilateral pegs: the mechanics of the CBA are such that a successful speculative attack is rendered more difficult, although not impossible. For example, the currency board

for the Hong Kong dollar suffered a speculative attack in 1997, which the Hong Kong authorities successfully fended off with the unorthodox measure of purchasing equities to support the stock market. Interest rates act as automatic stabilisers responding to monetary base changes, such that the shock of an attack falls on the banking system. Under dollarisation, the adopting country's fate is inevitably tied to the fortunes of the anchor currency.

Since hard pegs involve a commitment to an unadjustable exchange rate, the authorities must give up any degree of monetary policy autonomy and pursue appropriate fiscal, structural and financial policies. CBAs, for example, require fiscal discipline, price flexibility and the availability of an adequate level of international reserves to operate effectively. In this respect, four comments are in order. First, since the exchange rate cannot be used, to any degree, as a shock absorber in the event of an asymmetric shock, wages and prices must bear the burden of adjustment. This is likely to be a painful process because prices are "sticky" in the short run, even in economies that are considered flexible. Second, given that, in principle, the central bank is not in a position to play the role of lender of last resort, the authorities cannot provide support to an individual institution or the banking sector in a systemic crisis.<sup>1</sup> As a result, a precondition for the adoption of a currency board is the existence of a sound domestic financial sector. This implies, for a number of emerging market economies, allowing a significant degree of participation of foreign financial institutions in their domestic market. Third, a relevant consideration for a number of emerging market countries is the loss of seigniorage arising from dollarisation, and to a lesser extent, under the adoption of a currency board. For instance, the Chilean authorities have estimated that, were they to dollarise their economy, there would be an initial loss of seigniorage of 2.6% of GDP, and a further 0.19% per annum thereafter. Fourth, political resistance to renouncing national sovereignty over monetary policy is

not uncommon. In view of the constraints associated with currency boards and dollarisation, it is not surprising that the number of countries which have adopted these forms of hard pegs remains limited.

## 4.2 Floating rate regimes

In a world of liberalised capital flows it may be in some countries' best interest to abandon the fixing of the exchange rate. This is because floating exchange rate regimes permit the pursuit of an autonomous monetary policy to absorb external shocks (see the "inconsistent quartet" argument, Box 2). In this context, a floating rate regime possesses in principle four main advantages. First, an autonomous monetary policy is consistent with the prioritisation of domestic objectives, such as inflation. Second, since a floating rate regime, unlike a peg, carries no implicit exchange rate guarantee, the exchange rate risk must be factored into decisions, thereby reducing the scope for moral hazard. Third, exchange rate flexibility should allow for smoother and more gradual adjustment to external shocks than under intermediate regimes and hard pegs. Fourth, in countries which have liberalised their capital account, floating exchange rates are better able to cope with abrupt capital flow reversals. For these reasons, floating rate regimes may be considered relatively less crisis-prone and may exhibit less of a propensity to misalign than pegs.

These positive arguments need to be qualified, as there are drawbacks associated with floating rate regimes. First, it should be noted that the autonomy of monetary policy under a floating rate regime may be either illusory or undesirable in certain cases. Even with monetary policy autonomy, a country that is subject to spillover effects from another economy needs to take these effects into account when setting monetary policy.

<sup>1</sup> This final aspect can be partially offset, however, by the presence in the country of foreign banks – which may potentially act as lender of last resort for their respective branches – or by building up private contingent credit lines.

Consequently, it may not be in a country's interests to pursue an independent monetary policy. Similarly, complete monetary policy autonomy is not necessarily optimal for some economies: optimal currency area theory suggests that small, open economies may be better off being part of a larger monetary area rather than having their own independent currency and exchange rate.

Second, where currency mismatches are not removed (owing in part to the difficulty of many emerging market economies in issuing debt in domestic currency, a phenomenon known as "original sin"), foreign currency indebtedness is vulnerable to downward pressure in foreign exchange markets and the flexibility of the exchange rate is of no advantage. This consideration underpins the "fear of floating" argument, as discussed below. Third, under a floating rate regime, an internal nominal anchor for monetary policy is needed.

In the absence of an external anchor, an internal anchor must be adopted. A monetary target is problematical for emerging market economies on account of the instability of money demand and under-developed domestic capital markets, and is rarely attempted. Inflation targeting is currently regarded as a more viable option and has been implemented in a number of emerging market economies. Such a framework implies specific domestic institutional and operational requirements in order to be fully fledged. While many of these requirements may gradually be met as the inflation targeting framework is implemented, central bank independence and transparency are prerequisites. Significant reliance of inflation targeting on macroeconomic projections makes its implementation more difficult in emerging market and transition economies where macroeconomic structures and relationships – in particular the monetary policy transmission mechanisms – are more difficult to estimate and less stable than in mature economies. Another requirement is the existence of a well developed domestic financial market, insofar as financial variables

are used to gauge market expectations. If this is not the case when commencing inflation targeting, however, deep and liquid capital markets may gradually develop over time. Recent favourable experiences with inflation targeting in some countries, for example Mexico, Chile and Israel, may be attributable not only to compatibility with and positive developments in other components of the policy framework (specifically, fiscal policy and the domestic banking system), but also to the significant decline in exchange rate pass-through, i.e. the weakening of the impact of import price rises on inflation. It has been argued that the limited exchange rate pass-through is in fact a reflection of the adoption of an inflation targeting framework and the associated public confidence that price stability will be maintained. However, these experiences may be too recent to form a definitive view about the success of the inflation targeting framework, which means that the ability of inflation targeting to reduce and stabilise inflation at a low level should not be overestimated at this early stage.

In practice, the use of inflation targeting as an internal anchor by an emerging market economy is often far from being fully fledged insofar as some elements of the inflation targeting framework are lacking. Therefore inflation targeting tends to be complemented by some degree of exchange rate targeting. Israel and Chile have illustrated the dual pursuit of an internal and external anchor over several years with a view to effecting a gradual shift from the external to an internal anchor, and boosting domestic credibility. Recent developments in Brazil and Mexico – where the exchange rate showed a tendency for, respectively, excessive depreciation/appreciation over certain periods of time – also confirm that the authorities cannot completely ignore exchange rate developments under an inflation targeting framework. The fact that the exchange rate is less "well behaved" in emerging market economies than in mature economies adds to the size and variability of the interest rate risk premium, complicating the conduct of monetary policy.



### 4.3 Intermediate regimes

Intermediate regimes (which here refer exclusively to unilateral regimes, thus excluding multilateral regimes) have been widely employed by emerging market economies seeking economic stabilisation. Their experiences suggest that careful management of the regime is necessary to minimise vulnerability to crises. Below are some important considerations pertinent to intermediate regimes, in particular those with a pre-announced exchange rate target.

First, the credibility of an intermediate regime is important for economic performance. The pursuit of a peg, particularly an adjustable peg, may give rise to doubts about the commitment to maintaining the exchange rate, and expectations of devaluation or revaluation may arise.<sup>2</sup> Inflation expectations will be altered by the fact that the currency may be subject to depreciation beyond the bounds of the regime, prompting economic agents to demand a higher risk premium on domestic currency-denominated assets. In turn, upward pressure is exerted on nominal interest rates. The result can be volatility in output and lower growth. However, the need to ensure credibility has, in some countries, promoted the exercise of greater policy discipline, and where credibility is secured, an intermediate regime can play a key role in macroeconomic stabilisation.

Second, under conventional fixed-rate intermediate regimes, as is the case under hard pegs, there is no monetary policy autonomy to manage the economic cycle, smooth fluctuations or respond to shocks, although there is some room for manoeuvre under other types of intermediate regime. This argument rests on the “inconsistent quartet” of free trade, a fixed exchange rate, unrestricted capital flows and the autonomy of monetary policy. Given the first three conditions, monetary policy is subordinated to maintaining the exchange rate. In effect, this means adopting the monetary policy of the anchor currency economy, which can cause economic strain if the two countries’

business cycles are not synchronised. However, since synchronisation is increased by economic integration, and integration is a major determinant in the choice of the anchor currency, the problem of business cycle asymmetry is unlikely to occur unless the two economies are structurally dissimilar.

It is also argued that in countries pursuing a disinflation policy, the positive interest rate differential maintained to reduce inflation induces capital inflows, which need to be sterilised in the foreign exchange market. As experience has shown, this can be costly. In Israel, which is a key example along with Hungary, the cost of sterilisation has been estimated at 1% of GDP per annum.

Third, rising capital flows accompanying capital account liberalisation render intermediate regimes more vulnerable to crises. The behaviour of domestic agents – mainly in the financial and corporate sectors – and international investors may be influenced by the belief that there will be no depreciation or devaluation of the currency. To the extent that economic agents feel protected by implicit guarantees, and investment positions do not fully reflect potential risk, this may foster moral hazard which may ultimately precipitate a crisis if the quality of investment portfolios deteriorate, and/or lead to the build-up of unhedged positions, which would exacerbate the size of financial losses in the event of a crisis.

In addition, countries which adopt an exchange rate peg are exposed to self-fulfilling attacks. Given that the authorities publicly announce their commitment to an exchange

<sup>2</sup> Two arguments are ventured to explain why adjustable pegs attract weak credibility. First, there are expectations that if the authorities allow scope for adjustments of the exchange rate, they will at some point carry out adjustments. Second, it would appear that certain types of adjustable pegs lack clarity and as a result are less well understood, with economic agents interpreting commitment to a moving or broad target (e.g. a crawling peg or a band) as weaker than the commitment to a single anchor currency without adjustments. Alternatively, agents may be wary that moving targets afford the authorities more opportunity to alter the size of the adjustment. These concerns reveal the spread of different types of adjustable pegs along the fixed-flexible continuum.

rate level, financial markets can “test” the strength and limitations of that commitment. In particular, the balance of costs and benefits of defending the peg changes in the presence of multiple equilibria which may, if the situation persists, contribute to deteriorating initially sound economic fundamentals. This may lead markets to initiate an attack. In deflecting speculative attacks, credibility plays a crucial role.

To conclude against intermediate regimes on the grounds of their vulnerability, as is often done, is to overlook the potential disciplining effect that these regimes can have on the adoption of appropriate policies at the onset of, or even in the wake of a crisis precisely because of their vulnerability. An intermediate regime that is subject to a speculative attack alerts policy-makers to the need to review policy compatibility with underlying fundamentals. Should there be insufficient political willingness to address policy weaknesses, the disciplining effect of market forces will increase the pressure for reform on policy-makers.

Fourth, in the event of a crisis, costs may be high if not contained or offset by appropriate policy action. Where a crisis in an intermediate regime occurs, costs are incurred whether the exchange rate is defended or abandoned. Although the successful defence of a peg contributes to enhancing the credibility of the authorities’ commitment to pursue policies consistent with the maintenance of the chosen nominal anchor, the rise in interest rates will place a heavy burden on the banking, corporate and household sectors, reducing investment and thus dampening growth. If the peg is

abandoned and the exchange rate allowed to fall, foreign exchange reserves will be preserved, but debts denominated in foreign currencies will rise with negative implications for the balance sheets of the public, corporate and household sectors. These costs are unlikely to have been hedged given the operation of the peg. Bankruptcies tend to rise and bad and non-performing loans mount, leading banks to engage in credit rationing to restore profitability with repercussions for investment and growth. It should be added that the abandonment of the peg and the subsequent fall-out are not unique to intermediate regimes, but are also possible under hard peg currency boards, as was the case in Argentina.

Notwithstanding the potential for large losses, it may be argued that the cost of a crisis should not be the only yardstick on which to base a decision on regime choice. Countries’ experiences of the overall impact of a crisis in an intermediate regime vary widely, depending on the exchange rate pass-through and the structure of public and private assets and liabilities. Moreover, the shock induced by a disorderly exit may galvanise political will which was absent before the crisis and foster the acceptance across a wide spectrum of economic agents of stringent policy measures aimed at correcting the policies which were at the origin of the crisis. Consequently, the short-term financial and economic costs of a currency crisis under an intermediate regime need to be weighed against possible long-term beneficial effects arising from more appropriate and more decisive policy action resulting from the crisis.

## **5 Current developments in exchange rate regimes in emerging market economies**

When discussing exchange rate regimes in operation, a distinction needs to be made between *de jure* regimes (regimes declared to the IMF) and *de facto* regimes. Recent literature on the subject provides some

indication of the extent of the divergence between the two. Depending on the method used to infer *de facto* regimes, it appears that around half, if not more, of all declared regimes are not actually pursued. This

discrepancy can be explained, to a large extent, by emerging market economies' "fear of floating" and, to a lesser extent, "fear of fixing". Fear of floating is the fear that a falling exchange rate will raise inflation and/or cause a large rise in debt denominated in, or indexed to a foreign currency. Fear of fixing is both the fear of becoming the target of a speculative attack if a peg to a given exchange rate is declared, and the fear that, for relatively closed economies operating a fixed regime, a sudden stop in capital flows will necessitate a very large real depreciation to restore a viable external position, which implies a degree of price and wage flexibility that is both difficult to achieve and politically unpalatable.

A second difficulty in analysing existing regimes is that the corner/intermediate dichotomy is far from clear-cut. At the flexible end, the practical distinction between managed and independent floating rests on the motive for intervention: in the former case it will be to influence the direction of change in the exchange rate; in the latter it will be to reduce volatility. Yet the motive is non-observable, and can be identified, if at all, only after intervention. In the literature, there are differences in views across authors on the inclusion of managed floats in the flexible corner, underlining the difficulties in appropriately delineating exchange rate regimes. At the hard peg end, it can be argued that hardness can be defined in terms of the costs (economic, political and reputational) of the exit, rather than in terms of the degree of rigidity of the central rate. Given that the costs of exit will be higher where the exit entails a breach of a commitment, enshrining the commitment into national law can be seen to harden the regime.

In terms of the categories described in Box I, recent empirical studies suggest that intermediate regimes are currently the second most popular type of regime, behind floating rate regimes, but well ahead of hard peg regimes. This observation undermines what the literature terms the "hollowing out" of the mid-range of the spectrum of

exchange rate regimes, i.e. the claim that intermediate regimes are disappearing.

In terms of trends during the 1990s, recent literature suggests that regime shifts were not predominantly outwards, towards corner regimes. First it is noted that although most regime shifts originated in intermediate regimes, this should come as no surprise given that in 1990 almost four-fifths of emerging market economies pursued intermediate regimes. Second, of the emerging markets which exited intermediate regimes, more than half adopted another form of intermediate regime rather than a corner regime. Shifts to a floating rate regime could not, in many instances, be described as a "choice" but are rather prompted by a lack of credible alternatives. Moreover, some countries, such as Malaysia and Ecuador, whose currencies were forced to float reintroduced an intermediate or hard peg regime upon stabilisation of the exchange rate after a period of free-fall. Consequently, claims of a growing preference for corner regimes are somewhat exaggerated.

Importantly, emerging market economies' experiences with floating rate regimes and hard pegs is limited. Only a small number of emerging market economies have pursued hard pegs for any significant period of time (e.g. Panama, Hong Kong and Estonia), while the experience in Argentina showed that the conditions needed to sustain a currency board are demanding. At the opposite end, experiences with floats are also too recent to draw firm conclusions (examples of this include Brazil and Poland). As noted above, there are initial signs that floating plus inflation targeting offers a stabilising influence in emerging markets. The fact that relatively few emerging market economies have thus far adopted this type of regime may be a reflection of the relatively demanding institutional and operational requirements needed to operate this policy framework in a credible manner (central bank independence, transparency, and an effective monetary policy transmission mechanism in the country concerned).

## 6 Conclusions

The experiences of emerging market economies with various regimes in the 1990s led to popular support for corner solutions and for free floats in particular, but closer examination reveals a need for some rebalancing of the arguments. Since economic and financial conditions vary widely across countries, there is no single ideal exchange rate regime for all countries, nor for any country all of the time. Countries should be aware of the full range of regimes available, and be at liberty to choose among them in accordance with their own particular situation (e.g. degree of monetary policy autonomy desirable and feasible, degree of capital account liberalisation and financial stability, pattern of trade and financial linkages, participation in regional co-operation arrangements).

An exchange rate regime is not an end in itself but a means to an end, namely macroeconomic stability and sound and sustainable growth. The exchange rate regime may play a disciplining role in terms of contributing to the adoption of stability-oriented macroeconomic policies and appropriate structural reforms which otherwise may not be accepted. Intermediate regimes are particularly sensitive barometers of policy inconsistency with regard to economic fundamentals on account of their greater susceptibility to market pressure

compared with hard pegs or floating rate regimes. This cautions against using vulnerability or orderliness of regime exit as key criteria to assess exchange rate regimes.

Considering each of the classes of regimes in turn, currency boards are a viable option in only a limited number of cases on account of their demanding requirements, notwithstanding the usefulness of currency boards as swift stabilisation devices for economies suffering from very high inflation and with a history of failed stabilisation attempts. Flexible exchange rates have become more attractive to a wide range of emerging market economies in the current environment of increased capital mobility, given that intermediate regimes have become more demanding to operate. Intermediate regimes nevertheless offer a potentially useful policy option and have distinct merits under appropriate, albeit strict, conditions. The view that there has been a “hollowing out” of regimes towards corner regimes for EMEs does not find rigorous empirical support. Although the popularity of intermediate regimes in EMEs has declined over the decade, they are still widely pursued. In the main, corner regimes are in a “trial phase” for many emerging market economies, and developments with floating plus inflation targeting in particular will be worth monitoring.