

# Financial Globalisation, Exchange Rates and Capital Controls in Developing Countries

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*Abstract:* This paper argues that (i) for many developing countries, the optimal external payments regime would be a combination of an intermediate exchange rate with capital controls and (ii) the policy stance and advice of the IMF should reflect this view. The paper uses India as a case-study to illustrate its argument.

*Key-words:* Globalisation, Exchange rate regimes, Impossible Trinity, Capital controls, India, East Asian crisis.

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What are the implications of financial globalisation for exchange rate regimes in developing countries?

## **I The Impossible Trinity and the Bipolar View**

I begin with the well-known trilemma, sometimes referred to as the Impossible Trinity, to which policymakers in any open economy must respond. A crucial insight of the Impossible Trinity is that the choice of exchange rate regime cannot be considered separately from the choice of policy stance towards capital flows. The standard formulation of the Impossible Trinity says that it is impossible to achieve the following three desirable goals simultaneously: exchange rate stability, capital market integration and monetary autonomy. Any pair of goals is achievable by choosing a suitable payments regime but requires abandoning the third. Specifically:

- (i) Exchange stability and capital market integration can be combined by adopting a fixed exchange rate but requires giving up monetary autonomy. The authorities lose the power to vary the home interest rate independently of the foreign interest rate.
- (ii) Monetary autonomy and capital market integration can be combined by floating the exchange rate but requires giving up exchange stability. The authorities have freedom to choose the home interest rate but they must in consequence accept any exchange rate that the market dictates.

- (iii) Exchange stability can be combined with monetary autonomy but requires giving up capital market integration. In the presence of capital controls, the interest rate-exchange rate link is broken.

The Impossible Trinity needs careful interpretation on two counts. Firstly, it is a *theorem* only if “capital market integration” is understood to mean *perfect capital mobility*. Capital account convertibility (hereafter CAC), meaning the absence of *policy* barriers to capital flows, is consistent with imperfect capital mobility. There can be *natural* barriers to mobility (e.g. due to risk) that make domestic and foreign assets imperfect substitutes. This creates some scope for (short-run) sterilised intervention and hence for some monetary autonomy even with a fixed exchange rate. Secondly, the Impossible Trinity, strictly speaking, has nothing to say about intermediate regimes between fixed and floating exchange rates.<sup>1</sup> This raises the question: why should a country not enjoy *partial* exchange stability and *partial* monetary autonomy consistently with CAC?

Financial globalisation has sharply increased the mobility of capital flows, reducing both the natural and the policy barriers to capital flows. According to the Trinity, this reduces the policy menu to a simple choice between fixed and floating exchange rates. But, as stated above, this ignores the option of choosing an intermediate regime. The “bipolar view”, an important extension of the Impossible Trinity, specifically addresses this point. It postulates that no intermediate regime is sustainable in the presence of high capital mobility. The strong version of the view says further that high capital mobility is inevitable because capital controls are not feasible. On this view, the policy choice does indeed reduce to fixed vs floating rates since all intermediate regimes are unsustainable.<sup>2</sup> The bipolar view predicts that all countries will move to the “fixed” and “floating” corners of the spectrum of exchange rate regimes.

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<sup>1</sup>See Frankel (1999).

<sup>2</sup>For the strong and weak versions of the bipolar view, see respectively Eichengreen (1994) and Fischer (2001).

We need to be clear what the terms “fixed”, “floating” and “intermediate” exchange rates mean. The following definitions are implicit in the bipolar view and will be used in the rest of this paper. A *fixed* exchange rate is defined as one which is irrevocably fixed, i.e. a super-hard peg. An *intermediate* exchange regime is one in which the authorities have an exchange rate target. The target does not have to be fixed or explicit. It could be informal, unannounced or shifting. Thus an intermediate regime covers adjustable pegs, bands, crawling pegs and crawling bands. It also includes “managed floating” if the float is managed to attain a target level or path of the exchange rate. A *floating* exchange rate is one in which the authorities do not have an exchange rate target, formal or informal. This obviously includes a clean float. It also includes a managed float, so long as the ‘management’ does not involve an attempt to target the exchange rate.

The problem created by financial globalisation can now be stated as follows. Both fixed and floating exchange rates have their disadvantages. Governments therefore strongly prefer an intermediate regime where they retain some control over both the interest rate and the exchange rate. But if the bipolar view is correct, intermediate regimes are not feasible with financial globalisation. So governments have perforce to fix or float. The above discussion raises the following questions: Are the alternatives facing the authorities as restricted as the bipolar view implies? If not, what is the menu of regime options? And finally, which of the feasible regimes is *optimal* (i.e. the best or the least bad)? These questions are analysed below from a developing-country standpoint.<sup>3</sup>

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<sup>3</sup>For a clear and insightful analysis of exchange rate regimes in developing countries, see Corden (2002).

If exchange rate arrangements are of three types viz fixed, floating and intermediate, and if each could be combined with CAC or capital controls, there are, in principle, six possible alternatives:

- (i) Fixed exchange rate + CAC
- (ii) Floating exchange rate + CAC
- (iii) Intermediate exchange + CAC
- (iv) Fixed exchange rate + capital controls
- (v) Floating exchange rate + capital controls
- (vi) Intermediate exchange rate + capital controls

I rule out (iv) and (v) because they are surely dominated by (vi). The latter permits the authorities to deploy monetary and exchange rate policy as separate instruments. It would be foolish to reject this freedom and opt for a fixed or a floating exchange rate with capital controls.<sup>4</sup> Thus, the alternatives in play are (i), (ii), (iii) and (vi). The strong version of the bipolar view says that the effective choice is between (i) and (ii) because (iii) and (vi) are not feasible. But the bipolar view is only a hypothesis, so (iii) and (vi) must also be examined. The contention of this paper is that the bipolar view is, broadly speaking, right about the non-sustainability of (iii). But (vi) is a feasible option in some developing countries and may even be optimal.

Optimality encompasses feasibility. When it comes to judging optimality, there have to be criteria of judgement. A consensus list of criteria would run as follows. A payments regime should be judged by whether it can:

- Act as a nominal anchor against inflation
- Facilitate macroeconomic real adjustment

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<sup>4</sup>One qualification should be made. In the late stages of its transition to financial maturity, it may make sense for a developing country to adopt a floating exchange rate while retaining a few capital controls. This point is discussed later in the text.

- Promote microeconomic efficiency
- Reduce vulnerability to crises (this refers back to the feasibility issue)

As a background to the rest of the paper, the evidence regarding the evolution of exchange rate regimes is summarised in this paragraph. Table 1 refers. The picture for the developed countries seems to correspond well with the bipolar hypothesis: the overwhelming majority of them are now at the “corners” of the spectrum of exchange rate regimes. As of 2001, the U.S., the Euro-zone, Japan, U.K., Australia and Canada are floating. Within the Euro-zone, the constituent countries have abandoned their national currencies. In developing countries, the move towards the “corners” is less sharp. In 2001, roughly three-quarters of the “emerging” and one-half of “non-emerging” developing countries were at the “corners”. That still leaves a substantial number of countries (72 out of 186 IMF members) not at the corners, i.e. in the “intermediate exchange rate” category. Two further points should be borne in mind. Firstly, though Table 1 does not bring this out, almost all the movement in developing countries has been towards the floating corner, not the fixed. And as one would expect, the movement is greater in “emerging” countries than in “non-emerging” countries. Secondly, though Table 1 claims to be based on a *de facto* rather than *de jure* classification of regimes, it is likely that it underestimates the number of developing countries with intermediate regimes.

**Table 1**

	Exchange Rate Regimes (% at “corners”)	
	1990	2001
All countries	31	61
Developed	26	96
Developing	31	57
Emerging	23	78
Non-Emerging	34	53

Source: Bubula and Otker-Robe (2002)

Note: 32 countries are classified as “emerging”, viz. Argentina, Brazil, Bulgaria, Chile, China, Columbia, Czech Republic, Egypt, Ecuador, Hong Kong, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Panama, Peru, Philippines, Poland, Russia, Singapore, South Africa, Sri Lanka, Thailand, Turkey, Venezuela.

## **II Fixed Exchange Rate plus CAC**

In this regime, the central bank commits itself irrevocably to defending a fixed exchange rate. Since governments can break their promises, the commitment has to be backed up by exceptionally strong legislative/constitutional safeguards. Recent experience in Argentina suggests that even currency boards can break up, so perhaps only the adoption of a foreign currency as legal tender (“dollarisation”) qualifies as a “fixed exchange rate”.

The strength of this regime is that it provides a firm anchor against inflation, provided of course that the peg-currency is stable in value. This is a vitally important consideration for small, open economies and for countries with a propensity to hyper-inflation. The outstanding weakness of this regime follows from the complete surrender of monetary

sovereignty that it entails. Seignorage is either fully lost (dollarisation) or highly circumscribed (currency board). So is the ability to use monetary policy to adjust to asymmetric shocks, a safety-valve of major importance when money wages and prices are sticky downwards (provided real wages are flexible). This is particularly germane for large, relatively closed economies (e.g. Argentina, India). “Pure” fiscal policy may be an available macro-instrument but only if it is used strictly in line with the dictates of functional finance. Microeconomic efficiency considerations favour this regime. Exchange risk disappears, which should encourage trade and investment and reduce the cost of capital. But this is subject to the caveat that other types of risk (arising from variation in interest rates and profitability of investment) may increase. The cost of capital may not fall if default risk and country risk rise.

In this regime, the instability of the *effective* exchange rate can be a major problem. A fixed exchange rate normally means a rigid link to a single major currency such as the Dollar. But if the Dollar floats against the Euro and the Yen, and the economy is diversified in trade, the home currency is effectively floating. This reduces the microeconomic advantage of exchange rate certainty, and can also be a source of exogenous macroeconomic shocks. In the mid-1990s, this problem was experienced by both Argentina and East Asia, when the Dollar appreciated strongly. The macroeconomic problem can be attenuated by pegging to a basket of currencies, thus stabilising the effective exchange rate. But the microeconomic problem remains since the home currency now floats against *all* major currencies though the weighted average is constant. Transparency and therefore credibility are also adversely affected by a basket peg.

Proponents of dollarisation have emphasised its crisis-insulation properties. Since the currency peg is unalterably fixed, speculators do not have a target to shoot at. But this is only strictly true if the country “goes all the way” to dollarisation. Even a currency board is



fragile: if credibility is lost, speculation returns with a vengeance. Moreover, even if this regime is proof against a *currency* crisis, it is arguably as or more vulnerable to a crisis of the real economy, especially in the form of a prolonged recession.

Does a fixed exchange rate make sense from a national standpoint? The conditions for its success are very demanding. Without downward flexibility of wages and prices, it can be a recipe for disaster. Some developing countries may need to adopt it for the negative reason that they are too small and too open to benefit from exchange rate variation. Some others may have to adopt it to burn out inflation if domestic nominal anchors have been irretrievably compromised. Even so, there is no guarantee that inflation will be brought down *speedily*. So cumulative overvaluation and consequent recession and crisis remain a danger, as the many sorry examples of Latin American stabilisations indicate. The political connotations of dollarisation are also significant. A national currency is a potent symbol. Dollarisation smacks of foreign domination. For all these reasons, though dollarisation is fashionable in some quarters, it is very doubtful if it would suit most developing countries, other than a few micro-states and possibly some countries where this is the only solution to hyper-inflation.

It is not surprising therefore that very few developing countries have moved to the fixed end of the exchange rate spectrum in the last decade. Only two countries have dollarised, viz Ecuador and El Salvador, both in 2000. The success of these experiments is distinctly uncertain. Three Baltic countries adopted currency boards in 1991 but they were not moving from intermediate exchange rates; they were in fact breaking away from a monetary union, viz the erstwhile USSR. Argentina, Bulgaria and Bosnia were the only other countries to move to currency boards in the last decade. Argentina's broke up spectacularly in 2002.

### III Floating exchange rate plus CAC

With a floating exchange rate, the authorities do not have an exchange rate target. Monetary policy is governed by domestic output and inflation objectives and the exchange rate finds its level in the market.

The strength of this regime is that it facilitates real adjustment. Exchange rate movements provide a natural cushion against real shocks. In addition and in contrast to a fixed exchange rate, monetary policy can also be freely deployed to adjust to cyclical and other disturbances. A floating exchange rate avoids currency crises by definition, if a crisis is defined as the failure of an exchange-rate defence by the authorities. But the relevant question is whether it results in *excessive* volatility of the exchange rate (i.e. more than justified by fundamentals). If so, it can be crisis-prone though not exchange-rate-crisis-prone.

Despite intensive efforts, economists have failed to explain exchange rate movements on the basis of fundamentals. There is evidence that foreign exchange traders have extrapolative expectations at short horizons and that short horizons dominate currency trading. As a result, exchange rate blips can get magnified beyond a reasonable limit before they collapse. Floating exchange rates thus exhibit both short-run volatility and medium-run misalignments. These fluctuations can impose severe costs. (But it has to be said that there is not much econometric support for this proposition as far as the developed countries are concerned.)

A floating exchange rate can be inflationary unless it is supported by a firm domestic nominal anchor. The latter could take the form of a money supply target. However, the current fashion is for inflation-targeting, conducted by an independent central bank. But if the inflation target is rigid, monetary policy cannot be freely varied to counter fluctuations in *output*. Only a now-discredited new-classical rational expectations view would claim that

monetary policy should not be deployed to counter cyclical fluctuations.) In practice therefore central banks practise “constrained discretion”: the speed of attainment of the inflation target is left to the discretion of the central bank. Walking this particular tightrope requires a high degree of competence and credibility. The pre-conditions of successful inflation targeting are not easy to meet.

A floating exchange rate is not suitable for small, highly open economies in which traded goods constitute a high proportion of output. In these circumstances, most transactions and prices are strongly affected by exchange rate variations. This description covers many small developing countries but also many developed countries. The desire to escape exchange-rate uncertainty and the perceived propensity of floating exchanges to cause inflation were important motives in the drive to form the EMU. There are good reasons to think that developing countries, whether open or relatively closed, face *special* difficulties with floating exchange rates:

- Floating rates cry out for an inflation-anchor. Inflation-targeting is problematic in developing countries given fiscal dominance, the frequency of supply shocks, and the lack of requisite technical expertise.
- Developing countries lack the financial infrastructure that is appropriate for floating exchange rates. Their financial and foreign exchange markets lack depth, which is likely to increase the amplitude of exchange rate fluctuations. Moreover these thin markets are potentially subject to manipulation by hedge funds.<sup>5</sup>
- The financial credibility of developing countries is weak or fragile. Even a soundly-based monetary expansion may arouse market fears of future irresponsibility. This

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<sup>5</sup>See Cooper (1999).

imposes severe limits on the flexibility of monetary policy, which is the main advantage claimed for a floating exchange rate.<sup>6</sup>

- Forward cover is unavailable, except at short maturities. This is partly because the appropriate market infrastructure does not exist but mainly because of the lack of financial credibility. Another way of putting this point is that developing countries cannot undertake local-currency-denominated foreign borrowing. Since domestic bond markets are also undeveloped, a bias is created towards a debt structure that is over-dependent on unhedged external borrowing. This makes the national balance-sheet vulnerable to large exchange rate changes. It can be argued in response that a floating exchange rate is a necessary condition for the development of a forward market. Even if true, it may not be a sufficient condition since financial credibility does not automatically follow from floating the exchange rate.<sup>7</sup>

The upshot of the above is that developing countries' "fear of floating" is not irrational. Developed countries are better suited to floating exchange rates, which do give them a measure of monetary autonomy. Even so, it is significant that European countries have chosen to abolish intra-Europe exchange rate fluctuations by adopting a common currency.

#### **IV Intermediate Exchange Rate plus CAC**

The case for an intermediate exchange rate is that a compromise between exchange rate targeting and monetary autonomy is better than giving up one of these goals altogether. Some scope to vary interest rates is necessary in responding to shocks and some scope for exchange rate targeting can be useful for anti-inflationary purposes or to prevent unnecessary fluctuations of the exchange rate away from its equilibrium level (for example, to deal with

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<sup>6</sup>See Calvo and Reinhart (2000).

<sup>7</sup>See Eichengreen and Hausmann (1999).

capital inflows that are judged to be temporary). Of course an intermediate regime involves giving governments discretion. One of the drawbacks of a Bretton-Woods type “adjustable peg” was that exchange rates were altered infrequently. But an intermediate regime does not have to be so inflexible. It can take the form of a crawling peg, a target zone with bands, or even a crawling band with a basket peg. These regimes seek to achieve a balance between rules that bind the government and focus market expectations on the one hand and discretion for the government to act flexibly within the rules on the other hand. (It should not be thought that in the polar regimes, the issue of government discretion is wholly absent. The operation of inflation-targeting in a flexible rate regime requires complex decisions about the stance of monetary policy. In a fixed rate regime, complex decisions have to be made about the stance of fiscal policy.)

The outstanding problem with intermediate regimes is vulnerability to currency and banking crises. The theoretical explanation of this phenomenon relies on two basic ideas:

- (i) An exchange rate target for the authorities also provides a target for speculators. Speculative attacks can take place even if the fundamentals are sound (or at least not manifestly unsound). This is the notion of “second-generation” self-fulfilling crises. A speculative attack can succeed by raising the political and economic cost to the authorities of maintaining the exchange rate at the target level, even if the fundamentals are in good order.
- (ii) An exchange rate target lulls economic agents into complacency about exchange risk and leads them into heavy, unhedged foreign-currency borrowing. This distorts the debt structure of the economy and vastly increases the potential damage of a successful speculative attack.

The theoretical underpinning of the above ideas is not fully coherent and has loose ends. But empirically, the succession of currency crises that have afflicted intermediate regimes in the last decade does constitute strong *prima facie* evidence in favour of the crisis-vulnerability hypothesis. The crises include those that occurred in ERM countries (1992),

Mexico (1994), Thailand, Korea, Malaysia, Indonesia (1997/98), Brazil (1999), Russia (1999), Argentina (2001), Turkey (2001). Note also that at least four of these crises occurred in countries with *flexible* intermediate regimes (crawling bands), viz Mexico, Indonesia, Russia and Turkey. This suggests that *all* intermediate regimes are vulnerable, not only old-style adjustable pegs. It would still be possible to insist that all the crises in the 1990s were rooted in fundamentals and that the intermediate regimes would have been sustainable if only fiscal and financial policies had been sound enough. But this line of thinking no longer carries conviction.

Vulnerability to capital-account crises may not be a major issue in those developing countries that are not yet linked into the world capital market and thus have “natural” barriers to capital mobility. No doubt, this accounts for the prevalence of intermediate regimes in such countries. But as these countries “emerge”, one can expect their intermediate regimes to be progressively more subject to instability.

## **V Intermediate exchange rate plus Capital Controls**

Intermediate regimes in the presence of capital mobility are vulnerable to currency crises. But, as seen in Sections II and III, polar regimes are also crisis-vulnerable in a broader sense. In addition, they lead to loss of control over either the interest rate or the exchange rate, both of which alternatives impose significant costs and constrain macroeconomic policy. This naturally leads to the thought that the least bad regime may be an intermediate regime with some capital controls. Of course, capital controls impose costs but the issue is whether the cost-benefit calculus favours this regime over the others.<sup>8</sup> The crux of the matter can be briefly put: free capital movements can be hugely beneficial if they are well-behaved but in

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<sup>8</sup>For a nuanced advocacy of capital controls, see Bhagwati (1998), Cooper (1999) and Williamson (1993).

the real world they can be perverse. There is therefore a case for government action to counter this perversity.

The underlying reason for the perversity of capital flows is the deep informational failures in capital markets. One manifestation of these is “herd behaviour” and the tendency to “panics, manias and crashes”. Some but by no means all capital-market perversity can be explained by the moral hazard that lender-of-last-resort facilities generate. But these facilities cannot be wholly abolished, and for good reason. Prudential regulation can reduce (but not entirely eliminate) the perversity of capital flows. The need to guard against the perversity of capital movements applies with particular force to “emerging” countries. Firstly, they are small in relation to capital flows. For example, during the East Asian crisis, several countries had a one-year swing in capital flows that exceeded 10 percent of GDP. It is doubtful if even the U.S. or the Euro-zone could easily manage an avalanche of this size. Secondly, the prudential and supervisory structures in developing countries are inadequate if not rudimentary. Realistically, they will take a long time to reach a satisfactory level.

But capital controls have costs. They reduce the scope for desirable intertemporal trade and risk-diversification. In addition, free capital movements are good for improving financial-sector efficiency. Arguably, they also impose a desirable discipline on policymakers. The costs of capital controls can be reduced by limiting their scope. Capital controls need not and should not have a wide sweep. Foreign direct investment brings large benefits and it is generally stable and “bolted down”. Portfolio equity investment is also reasonably stable. The unstable elements are predominantly debt and credit flows, especially bank loans, in particular those that are short-term and have to be rolled over frequently. It is to these volatile flows that capital controls have to be directed. In what follows, we assume that capital controls are of this focussed variety.

In the context of exchange rate regimes, the advantage of capital controls is that they significantly reduce the crisis-vulnerability of intermediate regimes. This is a major gain. In addition, the authorities can retain some control over both the interest rate and the exchange rate. They can have some exchange rate targeting and retain some monetary autonomy. Governments have good reasons to prefer such a regime over the polar extremes of fixed and floating exchanges. What *kind* of intermediate regime to have is a further decision that the authorities have to take. A clear role for capital controls would be to prevent a build-up of excessive debt, particularly of the short-term, foreign-exchange denominated, unhedged variety. This suggests the need to control the open foreign exchange positions of banks. But the net may have to be cast wider since such loans could also be contracted by the corporate sector directly. Other desirable controls include those which throw “sand in the wheels” of speculation, for example, restrictions on non-resident financial institutions borrowing on the local market to short the domestic currency. Ironically, the case for “prudential regulation” of the financial system is now generally accepted, but capital controls are regarded as suspect. But focussed capital controls are best viewed as a sub-category of prudential controls.

The following trajectory may well be optimal for a “typical” developing country. In the process of emerging, the country has an intermediate exchange rate regime sheltered by capital controls on short-term debt inflows and on outflows by residents. As it matures, it progressively moves towards making the intermediate regime more flexible while at the same time, diluting its capital controls. In the penultimate stage it floats and institutes an inflation target with only a few key capital controls in place (rather like Singapore). Finally, it arrives at full maturity and floats like the G3 countries with full CAC.

Are focussed capital controls feasible? The strong bipolar view says “No” because the market would always find a way round them. But it is notable that most developed countries had capital controls for a prolonged period after the Second World War. Some



developing countries have run capital controls successfully, for example Chile, China, India and Malaysia.<sup>9</sup> Even Singapore which has a very open capital market has restrictions designed to prevent speculation. Chilean capital controls, which took the form of a reserve requirement, equivalent to a tax on inflows that varied inversely with loan maturity, have been extensively studied. The consensus view is that they did lengthen the maturity of the debt. Capital controls can be porous but that is not necessarily a sign of failure if they can prevent large and sudden movements of hot money. Of course a precondition of their effectiveness is a minimum level of administrative competence and honesty and absence of gross macroeconomic irresponsibility. But these conditions are no harder to meet than the ability to run prudential and supervisory systems which nowadays seems to be taken for granted as the answer to the perversity of capital flows.

India's successful experience with capital controls is not generally known. The controls gave macroeconomic policy an extra degree of freedom and insulated the country from the East Asian and other currency crises. The Indian experience is analysed in some detail in the Appendix.<sup>10</sup>

## **VI Developing-Country exchange rate regimes and the Role of the IMF**

I have argued above that:

- A fixed exchange rate with CAC would not be suitable for a large majority of developing countries.
- But these countries also lack the market sophistication, regulatory infrastructure and policy credibility to combine CAC with a floating exchange rate.

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<sup>9</sup>The Malaysian experience is analysed in Athukorala (2001).

<sup>10</sup>For a fuller analysis of the Indian experience see Joshi (2003a, 2003b).

- Policymakers in developing countries therefore have good reasons to avoid both fixed and floating rates and to opt for an intermediate regime in which they retain some control over both the interest rate and the exchange rate. But such a regime would be highly crisis-vulnerable in the presence of CAC. Some developing countries that are not yet linked to the world capital market may have sufficient natural insulation from capital flows to make such a regime sustainable but this insulation will vanish as they “emerge”.
- The least bad arrangement for many emerging and potentially emerging countries during their transition to financial maturity, is an intermediate regime at the flexible end buttressed by some well-targeted capital controls.

If the above view is accepted, it has some implications for the IMF’s policy stance towards developing countries. Until 1997, the IMF was a strong advocate of CAC and also of the bipolar view. Recently, its attitude has been more cautious but its overall stance remains negative. The above arguments suggest that there is a strong positive case for regarding intermediate exchange rates with well-targeted capital controls as the norm for a majority of developing countries during the long lead-time to financial maturity. If so, two points follow:

Firstly, the IMF should strongly discourage developing countries from combining intermediate exchange rates with CAC. Whether and how this should be reflected in its lending policies is admittedly a tricky question and needs further consideration.

Secondly, the IMF must go beyond general admonition against controls or unwilling acceptance of them. It must adopt a more supportive stance towards such restrictions and, more importantly, provide technical assistance to developing countries in designing appropriate capital controls, drawing on the extensive experience of countries that have successfully operated them (and that includes developed countries) and countries that have been unsuccessful in doing so. Many developing countries sorely need detailed guidance in

taking a view on desirability and design of inflow and outflow controls, controls on residents and non-residents, controls on different varieties of capital flow (FDI, portfolio equity, bonds, bank borrowing) and of different maturity (short term, long term), different entities to be controlled (banks, other financial institutions, non-financial companies), different methods of control (taxes, quantitative restrictions), and the duration of controls (permanent, temporary). They also need special advice on using focused controls to prevent speculation against their currencies, e.g. restrictions on forward and swap markets, on non-resident financial operations in domestic markets and on offshore markets in domestic currency. The object should be to devise systems suited to country circumstances which maximise the net benefit from capital flows. (None of this is incompatible with the IMF continuing its traditional insistence on fiscal rectitude and general prudential regulation.) IMF advice and assistance on the above issues is relevant for 'emerging' developing countries but perhaps particularly relevant for the many developing countries that have not yet joined their ranks but are in the process of doing so.

The IMF has avoided the above issues because of a general attitude that a simple rule (freedom of capital movement) is best (like freedom of trade). But free trade and free capital movements are different kinds of animal. The time has come for the IMF's policy stance to reflect the ambiguity of theory and evidence regarding the desirability of free capital movements.

## **Appendix: India's response to the Impossible Trinity, 1991-2001 and beyond**

India is a rather successful example of an intermediate exchange rate buttressed by focussed capital controls. Since the 1991 reforms, the national income of the country has grown at a satisfactory rate of 6 percent per annum (4 percent per capita) and has avoided the currency crises and contagion that have bedevilled the performance of many emerging countries.<sup>11</sup>

### **India's External Payments Regime**

India's payments regime is firmly in the "intermediate exchange rate plus capital controls" category. The exchange rate is classified as "market-determined" by the Indian government and as "floating" by the IMF. In fact, it is heavily managed and best described as a "dirty crawl". The rupee-dollar rate has exhibited longish periods of stability, punctuated by crawling depreciations in order to keep the real effective exchange rate roughly constant (at the 1994/5 level).

An intermediate exchange rate fits India's circumstances. A fixed exchange rate would be unsuitable. It is a low-inflation country, with a conservative financial tradition, so it does not need the exchange rate as a nominal anchor. The country is subject to plenty of asymmetric shocks relative to possible peg countries such as the U.S. Since India is a large, relatively closed economy, it would be very costly to respond to these shocks by demand management alone, in the absence of exchange rate adjustment. Nominal wage and price inflexibility combined with real wage and price flexibility is a fair characterisation of India's labour and product markets. Consequently, changes in the nominal exchange rate are

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<sup>11</sup>This appendix is based on the more detailed treatment in Joshi (2003a, 2003b, 2003c). For a critical analysis of India's reforms, see Joshi and Little (1996).

necessary and effective in producing changes in the real exchange rate. Another important consideration is that India needs flexible monetary policy because the flexibility of fiscal policy is severely constrained by high budget deficits. This too rules out a fixed exchange rate.

But floating the exchange rate is also not a viable option. The country is not yet ready to adopt inflation-targeting. The authorities wish to target the exchange rate, though not rigidly, for various reasons: to keep the exchange rate mildly undervalued to promote the growth of exports, to accumulate foreign exchange reserves in periods of strength, and to prevent a self-fulfilling collapse of the exchange rate in times of weakness. The above considerations constitute the rationale for India's adoption of an intermediate exchange rate. But such a regime would be highly vulnerable to volatile capital flows. India's capital controls should be seen as a device to counter this problem.

India has had capital controls since the late 1950s. There was *selective* liberalisation of these controls in the 1990s when the reform process began. The regime can be summed up as liberal for foreign direct and portfolio equity investment but restrictive for debt-creating inflows, particularly of the short-term variety. All permitted inflows are freely repatriable. Capital outflows by residents are tightly controlled.

A crucial aspect of the system is controls on banks. This is important because bank borrowing has been strongly associated with crisis. Banks' foreign asset and liability positions are monitored and subject to set limits. Offshore trading of the rupee is not permitted (though a thin offshore market does exist). There are restrictions on domestic currency lending to non-residents, so opportunities for short-selling the currency are very circumscribed. The swap and forward markets are also controlled since these markets could be used to speculate against the rupee by circumventing the restrictions on direct short-selling. Thus, the overall policy thrust has been to limit forward trading to hedging current

account transactions. Of course, there is a price to pay: the forward market lacks adequate liquidity and depth.

### **Regime Performance in the 1990s**

The above regime enabled India to moderate a capital-inflow surge from 1993-95, avoid contagion from the East Asian (1997) and other currency crises (Brazil, Russia in 1998 and 99), and offset an industrial slowdown towards the end of the decade. These shocks were handled by a mixture of monetary policy (including sterilised and unsterilised intervention), and moderate exchange rate changes. But this tightrope walk would not have been possible without the shelter of capital controls. They prevented excessive short-term inflows and outflows and enabled the authorities to pursue a flexible monetary policy without losing control of the exchange rate.

A comparison of India and the East Asian countries in 1996 (i.e. just before the East-Asian crisis of 1997) is highly instructive and indicates why India escaped crisis and contagion during that crisis. It is clear from the first six columns of Table 2 that in most respects, India's fundamentals (fiscal balance, inflation, current account balance, non-performing assets, debt-exports ratio and debt-service ratio) were worse or no better than the crisis-countries. Exchange rate policy too is not a distinguishing feature. All these countries were on a loose dollar peg though the precise mechanism – band, crawl or crawling band – varied. India's exchange rate was no more volatile than the exchange rates of the crisis countries, so the incentive for unhedged borrowing was very similar.<sup>12</sup>

The critical difference between India and the crisis-countries can be seen in the last two columns of Table 2. India managed to keep short-term debt under control, both in relation to total debt and in relation to foreign exchange reserves. Thus, India avoided the

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<sup>12</sup>India's exchange rate policy was however better in one respect. When the dollar began to appreciate in 1995, the Indian authorities allowed the rupee to depreciate against the dollar. So, unlike the crisis-countries, India's real effective exchange rate did not appreciate much in 1996.

crisis by avoiding an unstable debt structure, an outcome that was the direct result of controls on debt-creating short-term inflows.

A relevant political-economy question is why India was able to resist the concerted pressure in favour of CAC exerted by the IMF and the U.S. Government in the early and mid-nineteen-nineties (until 1997). Extreme free-market ideology did not have a constituency in India and economic reform was quite explicitly of the gradualist variety. Foreign banks, which are normally a strong pressure group in favour of CAC had a very small presence in India. Most important, India was “too big to be bullied” by Wall Street, the IMF and the U.S. Treasury.

### **Recent developments**

The outstanding recent development in India’s external accounts is the rapid accumulation of foreign exchange reserves, which have now reached more than \$80 billion (around 18 months of merchandise imports). Evidence indicates that the increase in foreign inflows does *not* consist of direct foreign investment, foreign portfolio investment or medium- and long-term borrowing. It is driven by (a) a boom in software exports and remittances and (b) interest arbitrage arising from the rapid decline in the interest rates in the major countries.

The authorities have responded to these inflows by partial monetization and partial sterilisation. In view of the ‘temporary’ nature of a significant proportion of the inflows, this seems an appropriate strategy though it would make sense to add import liberalisation, a very modest appreciation and some tightening of the controls on arbitrage inflows to the policy mix.<sup>13</sup> This policy mix is of course fully consistent with India’s payments regime.

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<sup>13</sup>I have discussed the correct policy response to India’s recent inflows in a newspaper article (Joshi, 2003c).

## **The Future**

Should India move rapidly to CAC in the near future? I do not think so. This is because:

- The prerequisites of CAC are not present. The fiscal deficit is in the region of 10 percent of GDP. The financial sector is not robust. The incidence of non-performing assets (NPA) is still high (an average of about 12 percent of advances) on official figures. True NPAs are even higher due to “evergreening”. Prudential supervision of the financial sector is still highly imperfect as evidenced by several recent scandals involving major financial institutions. In this situation, CAC would make the macro-economy highly vulnerable.
- The flexibility of macroeconomic policy would be significantly curtailed in the presence of CAC. India’s capital controls enable policymakers to combine monetary autonomy and exchange rate targeting.
- CAC would erode the tax base, an important consideration in a country where less than 10 million people out of a population of 1 billion pay income tax.
- The main downside of capital controls is that they slow down the improvement in financial-sector efficiency, the lack of which is itself an impediment in moving to CAC. But an early move to CAC would not help financial sector reform if it precipitated a financial crisis.
- It could be argued that abolishing capital controls would serve to discipline policymakers and, in particular, bring about a reduction in India’s high fiscal deficits. But experience shows that capital-market discipline can be capricious. Moreover, India is a country where sensitivities about foreign domination are very strong. If CAC is followed by crisis, a reversal of reform, including of CAC itself, is possible in



the Indian context. The solution to India's fiscal problem has to be internal and cannot be imposed by external financial discipline.

India's wish to integrate into the world economy is not in the long run compatible with the severity of its capital controls. The issue is one of timing and sequencing. When fiscal consolidation has taken place and the financial system has been strengthened, India's capital controls should be significantly relaxed. Even so, it is an open question whether the *total* elimination of capital controls is a good idea. It may be sensible to retain indefinitely some controls on banks' net open positions in foreign currency. With capital controls significantly liberalised, India's present intermediate exchange rate system will become less tenable and India will have to move towards floating and inflation-targeting.

The long-run is far away. Currently, an intermediate regime with targeted capital controls is the appropriate regime for India's circumstances. A rapid move to CAC could disrupt the country's large and unfinished reform agenda.

**Table 2****Indicators of Crisis-Vulnerability, 1996**

	FB/GNP (%)	$\Delta$ P/P (%)	CAB/XGS (%)	NPA (%)	NCEDT/XGS (%)	TDS/XGS (%)	SDT/EDT (%)	SDT/RES (%)
India	-9.0	9.0	-11.7	17.3	103.6	21.2	5.3	27.1
Indonesia	-1.0	8.0	-13.0	8.8	180.5	36.6	25.0	166.7
Korea	0.0	4.9	-14.6	4.1	82.0	9.4	49.4	192.7
Malaysia	0.7	3.5	-6.4	3.9	40.4	9.0	27.9	39.7
Philippines	0.3	8.4	-9.9	n.a.	80.1	13.4	19.9	67.9
Thailand	0.7	5.8	-19.5	7.7	110.9	12.6	41.5	97.4

**Notation**

FB/GNP: Fiscal Balance as a proportion of GNP

$\Delta$ P/P: Rate of Consumer Price Inflation

CAB/XGS: Current Account Balance as a proportion of exports of goods and services

NPA: Non-performing Assets of commercial banks as a proportion of total advances

NCEDT/XGS: Non-Concessional External Debt as a proportion of exports of goods and services

TDS/XGS: Debt Service as a proportion of exports of goods and services

SDT/EDT: Short-term external debt as a proportion of total external debt

SDT/RES: Short-term external debt as a proportion of foreign exchange reserves

**Sources**

FB/GNP, NPA: Bank of International Settlements Annual Reports 1997/98 and 1999/00 and Government of India, Economic Survey, 1999/00

CAB/XGS, NCEDT/XGS, TDS/XGS, SDT/EDT, SDT/RES: World Bank, Global Development Finance 1999

$\Delta$ P/P: I.M.F International Financial Statistics

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