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Capital Account Convertibility In India: Revisiting The Debate•

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1. INTRODUCTION

It is undeniable that in the last three decades, cataclysmic changes have been underway in the functioning and organization of the world economy. Following Went (2002-03), three changes may be singled out for special attention:

(i) A phenomenal increase in the number of global markets for products and services (especially financial services).

(ii) A growing role for "footloose" multinationals (a term owing to Reich (1992)) in the global economy.

(iii) An enhanced role for supranational organizations (G8, IMF, BIS, WTO, OECD etc.) and regional associations (EU, NAFTA, ASEAN, etc.), with a commensurate emasculation of the role of nation states.

While these developments are well recognized, a related phenomenon seems to have attracted relatively little attention viz. the unchallenged sway that the doctrines of new-classical economics[1] and monetarism have acquired over the policy advice emanating from academic institutions, international "think tanks" and multilateral bodies. This mould of thinking translates into policy recipes such as export-oriented growth, privatization, deregulation etc. and are religiously followed by many emerging market economies (EMEs) and least developed counties (LDCs), (under "persuasion" from international organizations) with no attention to local conditions. The actual results of such policies are often mixed, and though the success stories are inevitably highlighted, failures tend to get under-reported and attributed to faulty implementation rather than the flawed advice in the first place.

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1 The most common assumptions underpinning new classical economics are (i) rational expectations; (ii) market clearing; and (iii) a unique full employment equilibrium.

Capital account convertibility (CAC) seems to be one such instance of "orchestrated harmonization", and will form the subject matter of this paper.[2]

2. CAC & FINANCIAL INSTABILITY

2.1 Short-term & Long-term Capital Flows

Many advocates of the reforms process in India tend to view CAC as the last bastion to overcome in India's triumphal march towards globalization. To all such it may come as a surprise that much of the post World War II period (the so-called "golden age of capitalism") was an era of heavily regulated capital flows in the Western economies. Indeed the founding fathers of the Bretton Woods system recognized the incompatibility of a free trade and stable exchange rate regime with free capital mobility. Indeed, Keynes describes proposals "to *stabilize exchange rates and promote free trade without limiting international capital mobility*" as "*exercises in squaring the circle*" (see Felix (1995)). Reflecting the Keynesian orthodoxy then prevalent, the IMF Executive board in 1956 reaffirmed the right of member countries to impose capital controls. With the breakdown of the Bretton Woods system in the 1970s and under the powerful impact of Milton Friedman's writings (and later the emergence of the New Classical Economics School), the intellectual climate became less propitious towards capital controls, with the general policy sentiment veering to the view that "*no country can share in the benefits of international trade unless it allows capital to move freely enough to finance that trade , and modern financial markets are sophisticated and open enough that capital transactions can no longer be compartmentalized as trade-related or speculative*" (Boughton (1997)). Reflecting the new thinking, the International Monetary Fund's (IMF) Internal Committee in April 1997 unanimously voted in favour of amending the Articles of the Fund to allow capital controls only as emergency measures in exceptional situations.

To avoid a possible confusion, it is best at the outset to clarify that there are two levels of debates about the desirability of capital flows and for analytical convenience, it is best to keep them separate. The more prominent debate currently is about short-term capital flows and this is what we will be focusing on here. This is not pronouncedly ideological, with opponents of capital inflows being on both sides of the political spectrum (one irritating stratagem commonly employed by CAC advocates is to dub all opponents of CAC as "leftists" if not "Marxists").

There is also, however, an older debate about the desirability of long-term capital flows with distinct ideological overtones. The intellectual advocacy of long-term capital flows is normally based on some variant of the IMF's Financial Programming model (Khan & Haque (1990), with capital inflows into EMEs viewed as raising domestic investment rates over the domestic savings rate, dampening the effects of exogenous shocks and promoting efficiency in EMEs via transfer of technology and financial skills (see also Eichengreen (1996) for a more nuanced expression of this viewpoint). This view has been challenged in predominantly leftist intellectual circles (see for example, Plender (1997), Robinson (1996), Chesnais (1994), Went (2000) etc.) as imperialism masquerading in the guise of neo-liberalism.

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[2] Considering the accumulated writing on CAC in India, an additional article on the subject seems almost redundant. But like the proverbial bad penny, CAC refuses to drop out of circulation!

Recently, Singh (2002) in a detailed empirical study finds that unregulated FDI may do more harm than good, and where FDI has been least regulated it has also been least beneficial, while Rakshit (2001) argues that the theoretical conditions for the postulated benefits of FDI to be realized are rather restrictive. While CAC connotes liberalization of both long-term and short-term capital flows, it is important to bear in mind that the issues raised for the two types of flows are fundamentally different. Stiglitz (2000) for example, while emphatically regarding short-term capital flows as disruptive, finds "*the argument for foreign direct investment ...compelling*". The issues raised by long-term capital flows, though important, are too vast to be encompassed within the scope of a single article and are therefore not dealt with here. Our focus for the purposes of this paper remains the various issues raised by the inflows/outflows of *short-term* capital.

2.2 New-Classical versus Keynesian View of Financial Markets

The New Classical case for free (short-term) capital mobility rests on the so-called *efficient markets doctrine*. As is well known this hypothesis posits that current market prices of financial assets embody rationally all the known information about prospective returns from the asset. Future uncertainty is of the "*white noise*" kind and "*noise traders*" (speculators) may succeed in pushing the markets temporarily away from equilibrium. But with market clearing continuously, "*rational traders*" will bring the system back to equilibrium, by taking countervailing positions, and imposing heavy losses on those speculators who bet against the fundamentals. Equilibrium asset prices will therefore be altered only when there are "*shocks*" to the fundamentals, and while supply shocks are inevitable, the severity of demand shocks can be tempered by policy aimed at giving more access to information about fundamentals to market participants, and avoiding "*policy surprises*" or attempts to control asset prices. Such a view underpins the "*tough love"* approach of the IMF to dealing with currency crises - - an approach which is fundamentally skewed in that international credit banks who usually precipitate such crises by their indiscriminate lending, rolling over of credit and tax avoidance strategies are seen in the role of victims, whereas the major blame is apportioned to the crisis-affected countries for their bungled macroeconomic management (current account deficits, overvalued exchange rates, loose monetary policy, etc.) and for "misleading" investors by withholding key information about fundamentals. Such governments are then administered "bail out" packages with strong attached conditionalities as part of the "tough love" treatment. The post-crisis sternness contrasts markedly with the pre-crisis exhortations of top IMF officials as well as Treasury representatives of the US and European powers, to EME and LDC governments about the desirability of private capital inflows. For example, the Robichek-Lawson doctrine (so called after Walter Robichek, Director of Western Hemisphere operations of the IMF in the 1980s and Tony Lawson, Chancellor of the Exchequer under Margaret Thatcher) for example, regards the financing of rising current account deficits with increasing private foreign liabilities as a matter of little concern, maintaining that countries that pursued free market policies and fiscal restraint, could always cover current account deficits with capital account inflows from global financial markets. Diaz-Alexandro (1985), Devlin (1989) and Felix (1998) attribute the Latin American crises of the 1980s to the uncritical acceptance of this advice by several countries in that region.

The new classical orthodoxy about free capital mobility is crucially contingent on the EMH (efficient market hypothesis). Actual trading strategies of forex traders are in systematic violation of rational market behaviour. *"I'd be a bum in the street with a tin cup if the markets were efficient"* is a famous remark by none other than Warren Buffet. Theories of

human decision making (see Kahneman & Tversky (1984), Rabin & Thaler (2001) etc.) argue that in the face of complex uncertain situations, individuals do not proceed via maximizing expected utility but using *cognitive heuristics*. Such heuristics is an aid to reducing a complex task to a manageable proportion but often introduces systematic biases. The bulk of the econometric evidence on financial markets is also *contra* the EMH. (see for example, Shiller (1981), LeRoy & Porter (1981), Shleifer & Summers (1990) etc.).

Increasingly, economists are realizing that the 1930s Keynesian description of financial markets as being "*casinos*" guided by "*herd instincts*" is nearer the mark (than the EMH) as a description of how real world forex markets operate today (see for example, Russel & Torbey (2002), Huberman & Regev (2001) etc.). In the Keynesian view, investors in financial assets are not interested in a long-term perspective, but rather in speculating on short-run price behaviour. This is especially true in forex markets where day trading is the rule rather than the exception. Far from basing their expectations on prospective behaviour of the underlying fundamentals, such investors are more likely to base their opinions on market sentiments (that is, the opinion of the other members of their group). This lends a dangerous edge of volatility to financial markets as any "news" if it affects market sentiment strongly (in either direction) is likely to produce mood swings in market sentiment, even if the "news" in question is unlikely to alter long-term fundamentals. If one accepts the Keynesian view of asset price behaviour, then the case for CAC virtually collapses as the damage that unregulated capital flows can impose on an economy become apparent. Volatile capital flows can produce violent swings in important asset prices such as real estate, equities and of course the exchange rate itself, especially if they are pro-cyclical as noted by Williamson & Drabek (1998), Singh (2002) etc.

The fragility of the financial system is also enhanced by freer capital mobility. In two important recent studies viz. Kaminsky & Reinhart (1999) and Demirguc-Kunt & Detragiache (1998) the link between financial liberalization, exchange rate crises and banking crises is clearly brought out. Demirguc-Kunt & Detragiache (1998), for example, argue that financial liberalization intensifies competition among banks, who in their eagerness to preserve market shares could indulge in indiscriminate and risky credit operations (moral hazard problem). During bullish periods, debt leveraging can augment the expected return from financial position-taking by corporate borrowers. Wider asset price movements also erode the ability of banks and other financial institutions to adequately collateralize their loans, while competition restrains them from raising the risk premia on loans. Thus in a regime of capital account liberalization, with adequate prudential banking norms not in place, currency crises can easily translate into more general financial crises.

Thus the theoretical case for CAC seems on rather weak grounds. The position is aptly summed up by Stiglitz (2000) *" it is certainly clear now that the position (of the IMF) was maintained either as a matter of ideology or of special interests, and not on the basis of careful analysis of theory, historical experience or a wealth of econometric studies. Indeed, it has become increasingly clear that there is not only no case for capital market (account ?) liberalization but that there is a fairly compelling case against full liberalization" (parentheses mine).*

2.3 Risks of Capital A/C Liberalization

Let us now examine more closely the types of risks attendant on a capital account liberalization programme. Broadly speaking, these risks may be classified into five

categories: (i) Currency Risk (ii) Capital Flight Risk (iii) Fragility Risk (iv) Contagion risk and (v) Sovereignty Risk. Each of these risks we now discuss in some detail.

Currency Risk: This refers to the possibility of a sudden precipitous devaluation of a country's currency. The risk is particularly pronounced for EMEs embarking on an ambitious programme of capital account liberalization without adequate safeguards in place. In such countries reserves may be insufficient to cover significant episodes of investor exit, and additionally, their ability to manage *multilateral currency rescue operations* might be limited.

Capital Flight Risk: This occurs when non-resident holders of liquid financial assets sell off their holdings *en masse*. The reasons for the herd-like behaviour of foreign investors run along the lines discussed in Section 2.2. But two factors act as further aggravating factors. Firstly, investor herd behaviour is very frequently an outcome of the *safety in numbers* syndrome brought on by a shared lack of trust in the reliability of macroeconomic information emerging from EMEs. Secondly, foreign investors often tend to assess the risks in terms of a region as a whole, failing to distinguish between different EMEs within the same region. This makes EMEs vulnerable to bouts of general capital flight.

Fragility Risk: Fragility refers to the vulnerability of the borrowers (corporates, and banks) to internal or external shocks. Basically such fragility can be traced to three sources:

(i) Maturity mismatch (that is, financing long-term obligations with short-term credit);

(ii) Foreign currency denominated debts which are subject to changes in value under a freely floating exchange rate; and

(iii) Non-transparent overborrowing/overinvesting made possible by the growing derivates and futures markets.

Sovereignty Risk: This type of risk pertains to the constraints that a domestic government may face in its ability to pursue independent national policies in the event of a crisis. Such constraints could arise on various counts.

(i) Foreign governments and multilateral institutions may force contractionary policies on the domestic government to stem capital flight.

(ii) Investors may also be reluctant to return (following a crisis) unless explicit government guarantees are available on monetary, trade or fiscal policy (or sometimes even on policies specific to certain sectors such as telecommunications, oil extraction, etc.).

(iii) Global financial integration also implies that in general the ability of small open economies to pursue counter-cyclical policies may be impaired if their business cycles are out of sync with the business cycles of major economies. In particular, the difficulties confronting monetary policy formulation are compounded manifold (see Section 2.4 below).

Contagion Risk: Finally contagion risk refers to the possibility of a country coming under a crisis threat following a crisis in another economy, with which its trade, investment and finance are closely interlinked.

2.4 Capital Flows and Monetary Policy

Capital inflows create several special problems for the conduct of monetary policy. As a matter of fact, a famous *trilemma* succinctly sums up the various issues involved. The t*rilemma* in question (see Bernanke (2005) for a recent exposition) refers to the impossibility of maintaining in simultaneous operation (for a given country) all three of the following policy regimes: (i) an open capital account (ii) a fixed exchange rate and (iii) an independent domestic monetary policy. Of course, in practice, concepts like "openness", "fixity" or "independence" are not absolute, but relative or even fuzzy. Hence the *trilemma* needs to be interpreted as a move in one direction having to be compensated by a countervailing move along another dimension.[3]

The EU is a standard illustration where countries have opted for a substantial degree of fixity of their exchange rates[4] (*vis a vis* each other) with free capital mobility in place but monetary policy independence sacrificed. This is partly attributable to the EU constituting an optimum currency area in Mundell's (1961) sense and also to their being subject to similar "*shocks*" (see Bayoumi & Eichengreen (1992)). But this must be regarded as an exceptional case. Typically countries would be reluctant to sacrifice monetary policy autonomy, for reasons of national sovereignty and national pride, and the effective choice thus narrows down to that between capital mobility and a fixed exchange rate regime.

For the advanced economies the choice seems to be clear (at least to most academics and policymakers) viz. the benefits of capital mobility and independent monetary policy exceed whatever costs may be associated with a system of freely floating exchange rates. For the LDCs and EMEs, the picture becomes hazier. One view (see Vegh (1992), Dornbusch & Warner (1994), Bernanke (2005)) maintains that the best course for such economies is to overcome their deeply ingrained "*fear of floating*" and let the exchange rate float freely. A firm central bank commitment to gear monetary policy exclusively to maintaining a low and stable inflation rate, would then provide the much needed "nominal anchor" for the macroeconomic system. There are two major arguments against a "*free float*" for such economies.

(i) Firstly, as Sargent (1982) has noted, a fixed (or heavily managed) exchanged rate can be a suitable guard against high inflation, and can even act as a strong brake on persistent hyperinflations.[5] A fixed exchange rate commands visibility and is more credible than a direct inflation target (both because the former is observable instantaneously unlike the inflation rate which suffers from a lag of at least a few weeks and also because its measurement is non-controversial in contrast to the several competing measures suggested for the inflation rate in the literature).

(ii) Secondly, Calvo & Reinhart (2000) have drawn attention to the low credibility of policymakers in several LDCs, which could mean that a flexible exchange rate could exhibit high volatility (both short-term and long-term). The latter is usually recognized as exports inhibiting and could also lead to volatility of capital inflows and in domestic interest rates (if these are unregulated) via the *covered interest parity* (Calvo (1996), Kwack (2003), Cavoli & Rajan (2006) etc.).

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[3] Obstfeld et al (2004) present several historical instances of the trilemma.

[4] The Euro is, however, floating against the other major currencies such as the US dollar and the Japanese yen.

[5] He cites the role of exchange rate stabilization in ending the 1920s European hyperinflation.

In the Indian context, the problems confronting monetary policy in the wake of capital inflows (and financial liberalization generally) have been discussed extensively in Rangarajan (2000), Reddy (2005), Mohan (2007), Nachane & Raje (2007) etc. There has been in evidence a general movement away from a heavily managed exchange rate system of the 1980s and early 1990s towards. Today the concerns over the exchange rate are limited to short-term considerations such as the need to smoothen out excessive volatility and foreclose the emergence of destabilizing speculative activities and are usually subsumed under the rubric of "*overall financial stability*". However even though the RBI does not have a target exchange rate band in mind, it has not hesitated from pro-active intervention to prevent undue nominal exchange rate intervention. However such episodes of "*leaning against the wind*" are becoming increasingly less frequent now as the economy is showing signs of a robust growth and successful integration with the international economy. However as the following quotation from Mohan (2007) illustrates, India's exchange rate policy is in a state of evolution and may undergo a substantial transformation in the foreseeable future.

"*…the Dutch disease syndrome has so far been managed by way of reserves build-up and sterilization, the former preventing excessive nominal appreciation and the latter preventing higher inflation. However the issue remains how long and to what extent such an exchange rate management strategy would work given the fact that we are faced with large and continuing capital flows apart from strengthening current receipts on account of remittances and software exports."*[6]

3. CAC: MACROECONOMIC EFFECTS ON THE REAL ECONOMY

3.1 IMF's Financial Programming Model

The transmission mechanism through which short term capital flows impinge on the real economy are at best imperfectly understood. The major features of the IMF's financial Programming Model may be described in the following terms. We have firstly the national accounting identity

$$(I_G - S_G) + (I_P - S_P) = \Delta D - \Delta A - \Delta R \qquad (1)$$

This simply states that the excess of government investment (I_G) over government saving (S_G) together with the corresponding excess of private investment (I_P) over private saving (S_P) must be balanced by the excess of changes in the long term external debt and foreign investment stocks (ΔD) over the combined changes in the short-term asset positions of non-residents and in forex reserves $(\Delta A + \Delta R)$.

Additionally, we have the definitional identities

$$S_P = (Y - T) - C \qquad (2)$$

$$S_G = (T - G) \qquad (3)$$

[6] The introduction of the Market Stabilization Scheme in April 2004 assumes significance in this context as an important tool for short-term liquidity management.

where T represents government taxes, G is government current expenditure, and Y is national income.

Combining the above three equations lead to the following

$$(I_G + G - T) + (I_P + C - Y + T) = (M - X) = \Delta D - \Delta A - \Delta R \qquad (4)$$

where M, X are the imports and exports respectively.

Models building on various extensions of the above basic framework (see Rao & Nallari (2001) for a detailed overview) have been used to justify the IMF case for freer capital movements. Let us examine a few of these propositions critically.

A persuasive critique of the IMF model derives from the *asymmetric information*, *moral hazard* and *agency* literature (see Stiglitz & Weiss (1992), Grandmont (1998) etc.). This critique comprises three key components :

1. Domestic capital markets in several LDCs and EMEs lack "efficiency", plagued as they are by *agency* and *asymmetric information* problems.

2. Secondly, financial liberalization involves in its wake a large-scale conversion of liquid into illiquid assets, and the associated risks are not reflected in interest rates due to the *adverse selection* phenomenon. In the face of incomplete financial markets, large imbalances tend to be thrown onto the most liquid market (viz. that for foreign securities).

3. Interest rates in small open economies (under CAC) are not determined by the marginal productivity of capital or the intersection of the savings and investment schedules. Instead they are more likely to be determined by an interest parity condition of the form

$$i_d = i_w + \left(\frac{f^e - f}{f} \right) + \theta \qquad (5)$$

where i_d, i_w are respectively domestic and world interest rates, f^e, f are the expected and actual values of the exchange rate and θ is a country risk factor.

By virtue of (5), it is clear that the domestic rate of interest does not act as a market-clearing mechanism, but depends on several of the same factors that determine short-term capital flows, lending a dimension of instability to the exchange rate and the balance of payments generally.

3.2 Virtuous (International) Debt Cycle

The cornerstone of the IMF's prescription of CAC relates to the assuaging of the fears of several potential LDC liberalizers on the debt trap syndrome. The FP (financial programming) model referred to above often serves as the basis for a demonstration of the so-called "virtuous debt cycle" whereby capital inflows raise domestic investment (by bridging the *savings and forex gaps*), and thereby domestic output. Subsequently a domestic

surplus (through increased tax yields or private profits) emerges which translates either into a current account surplus (or at least a reduced deficit), thus liquidating the initial foreign loan. However as Devlin et al (1995) have shown, for the mechanism described above to be sustainable the following four conditions need to be fulfilled :

(i) $\left(\frac{dI}{dA}\right) \succ \left(\frac{dC}{dA}\right)$

where I is the total investment in the economy (that is, $I = I_G + I_P$).

This condition requires that short-term capital inflows should augment investment more than consumption.

(ii) $\left(\frac{dY}{dA}\right) \succ 1$

The resulting investment should augment factor productivity.

(iii) $\left(\frac{dX}{dA}\right) \succ \left(\frac{dM}{dA}\right)$

The new investment must lead to a net export surplus.

(iv) $\left(\frac{dS}{dY}\right) \succ \left(\frac{S}{Y}\right)$

The marginal savings rate must exceed the average savings rate.

We do not go into a detailed discussion of these conditions but *prima facie* they appear to be fairly restrictive and somewhat difficult of fulfillment in the context of most LDCs (see, for example, Reisen (1996)). Our only purpose is to stress that the prescriptions following from the FP model do not apply unconditionally.

3.3 Fluctuations in Public Investment

Capital flows can have pronounced impacts on the fiscal budget, principally on its capital investment component. These effects are transmitted through two major channels.

1. Exchange rate variations can have important effects on the budget mainly through the costs of external debt servicing. To the extent that capital inflows lead to an exchange rate appreciation, there is a reduction in these servicing costs, so that the influence of capital inflows on this count must be regarded as benign.

2. Another important channel of transmission is via the influence of domestic interest rates. In theory capital inflows should cause domestic interest rates to fall, but usually this tendency is kept in check by the monetary authority through sterilization operations. As capital inflows accelerate , the perceived country risk factor θ in (5) could move sharply upwards raising domestic interest rates. Besides capital inflows are usually accompanied by financial liberalization on a broad front, and this is very

often associated with an upward interest rate movement. The rise in domestic interest rates impinges heavily on the internal debt servicing requirements of the government.

The net impact of the above two factors is difficult to determine but there are strong *a priori* reasons for supposing that the second effect might be the dominant one. Fitzgerald & Mavrotas (1997) develop an analytical model in which the crucial variable is the *solvency ratio* λ which foreign investors regard as desirable for a country. This ratio λ is volatile and dependent on the state of investor expectations. The investors' desire to see the actual solvency ratio below their desired level, translates into demands for a strong fiscal surplus, and domestic governments faced with inflexible revenues and limited elbow room for manoeuvring current expenditure, inevitably take recourse to trimming capital expenditure. Two factors typically exacerbate this tendency. Firstly, the classical tenet of public finance that the revenue budget should be in balance (a tenet which is a prominent component of our FRBM Act) and secondly, the fact that capital expenditures (except on the defence account) are so much easier to prune politically.

3.4 Effects on Output and Growth

The relationship between capital account liberalization and economic growth has been debated at great length both theoretically and empirically. Summers (2000), Fischer (1998), Kaminsky & Schmukler (2002) make out the standard new-classical case for financial liberalization in general and capital account liberalization in particular. But this view ignores several key features of the ground reality in a majority of LDCS and EMEs. In these countries, security markets are not the major source of long-term industrial finance. Instead, firms are bank-dependent for their working capital funds, whereas their long term funding comes from either internal funds (that is, retained funds) or external borrowing (including foreign borrowing). Because equity markets are narrow and shallow, they exhibit wide fluctuations in response to changes in foreign flows. Such fluctuations in turn affect the availability of bank credit (unless fully sterilized), real exchange rate movements, and interest rates (via monetary policy responses). As shown in Fitzgerald & Mavratos (1997) such oscillations tend to magnify the effects of financial frictions originating abroad on the domestic economy, without having any compensatory positive effect on private sector fixed capital formation. Aghion et al (2000) qualify such conclusions by noting that capital account liberalization is deleterious only when it is premature (that is, when undertaken without adequate financial development).

Given the conflicting theoretical picture, it is of interest to turn to the empirical evidence. Here one immediately runs into the problem of developing a suitable measure of capital account liberalization. At least four measures have been suggested in the literature which we briefly list below.

(i) *IMF measure* (CAL1): The IMF publishes annually the *Report on Exchange Arrangements & Exchange Restrictions,* wherein line E.2 lists the status country-wise on each of 13 major capital account transactions. The measure CAL1 is simply the *proportion of years in the sample period in which controls were absent,* and is thus a number between 0 and 1.

(ii) *Quinn's Measure* (CAL2): Quinn's (1997) measure is also based on the IMF data but attempts to give weightage to the intensity of the controls. Thus a score of 0 indicates both receipts and payments forbidden (on any of the transactions), 0.5 indicates some

regulatory restrictions, 1 indicates heavy taxes, 1.5 moderate taxes and 2 no taxes. The measure is calculated for each year (it is between 0 and 4 – the sum of the values of the two separate categories of receipts and payments). We call this measure as CAL2, and this has the advantage (unlike CAL1) that it is defined for every year rather than only over a sample period. As such it can be used conveniently as a time series to indicate the progression of capital account liberalization in any given country.

(iii) *Montiel-Reinhart (1999) Measure (CAL3)*: This indicator is similar to Quinn's measure, but varies only between 0 and 2. A value of 0 indicates a "no restrictions" situation, 1 represents "overzealous potential restrictions" (for example, limits on forex exposure of banks) while 2 indicates the existence of "explicit measures" (financial transactions taxes, deposit requirements, prohibitions etc.).

(iv) *Uncovered Interest Parity Measures (CAL4)*: Reisen & Yeches (1993) suggested a measure of capital account openness based on the UIP (uncovered interest parity). Let $i*$ denote the UIP interest rate, i_d the actual domestic interest rate, and i' the hypothetical closed economy interest rate. CAL4 is then defined as μ in the following equation

$$i_d = \mu i* + (1-\mu) i' \qquad (6)$$

Table 1 presents the main features of some empirical studies designed to explain the growth implications of capital account liberalization. Most of the studies employ panel data on sets of countries in the post Bretton Woods era. While Table 1 lays no claim to exhaustiveness, it does indicate that the case for capital account openness being growth enhancing is far from convincing and that whatever benefits may be involved are confined to high-income countries, though even the latter conclusion is challenged by empirical investigations such as those of Eatwell (1996) and Singh (1997).

3.5 Other Important Distortions

Capital account liberalization introduces several other potential sources of distortion, of which we note the following :

(i) One of the most important distortions is the steep rise in asset prices as foreign capital pours into important asset markets such as equities and real estate. The problem becomes particularly sensitive with the real estate market. In countries experiencing demographic as well as urbanization pressures, there is a chronic shortage of urban housing. Hence it is a safe bet that real estate prices have a strong upward trend. Foreign capital on the lookout for capital gains finds housing investment an attractive option. The investment is both on the demand and supply side. That foreign purchases of property push up prices would be obvious. Equally obvious is the fact that the poor and middle-class domestic buyers (whose salaries would be indexed, if at all, to a price index which does not incorporate housing prices) would find themselves rapidly priced out of the housing market. What is not so obvious is the fact that even foreign investment in real estate development does not really relieve this distress but actually aggravates it as this estate development essentially involves constructing condominiums that cater to tastes (and budgets) of the upper segments

of the society (and of course non-residents). As a matter of fact, such estate development very often blocks off any increase in the supply of effective housing space for the poor and the middle-class. This phenomenon is rampant in most LDCs and EMEs and India constitutes a prime example.

(ii) A real exchange rate appreciation could result from an upward pressure on the asset prices. This could act as an important retardant of exports and undermine the progress of trade reforms.

(iii) As discussed in Fernandez-Arias & Montiel (1996), distortions to the perceived cost of foreign capital may arise because of externalities associated with aggregate country risk and credit rationing arising from limited *cross-border contract enforceability.*

(iv) Distortions in the financial sector could give rise to improper financial intermediation (Calvo et al (1993)) and result in excessive foreign borrowing.

Several further instances of macroeconomic and microeconomic distortions that can result from capital flows are discussed in Corbo & Hernadez (1996).

4. CAPITAL A/C LIBERALIZATION IN INDIA: A STATUS REPORT

4.1 First CAC Committee (Tarapore I)

To put our discussion in perspective, let us commence by reviewing a few empirical facts about capital flows and forex markets. The global forex market has an average daily turnover of US$1.88 trillion (as of 2004) according to the latest Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity by the BIS (2005). This makes the forex market the largest financial market in the world.[7] The main participants in this forex market are central, commercial and investment banks, hedge funds, pension funds, corporations and individuals, with more than 75% of the transactions being routed through banks. The U.K., U.S. and Japan account for the largest shares in the daily turnover (see Table 2). Table 3 shows that the major trade occurs in four currencies viz. the US dollar, Euro, Sterling, and the Japanese Yen, accounting between themselves for 78% of the total cross-currency trade with the Euro-US$ share the highest (at 28%). The spot market accounts for about one-third of the daily turnover (US$621 billion), with *foreign exchange swaps* being the largest component (at US$944 billion), followed by *outright forwards* (at US$208 billion).

Capital inflows into India have been increasing ever since the reforms were initiated, but there has been a marked acceleration in theses inflows -- both of the FDI (foreign direct investment) and FPI (foreign portfolio investment) variety. As indicated in Table 4, total foreign investment during the year 2005-2006 stood at approximately US$20 billion with FPI accounting for nearly 62% of this total. The rate of growth of FDI is considerably lower than that of FPI, though (as expected) the latter shows greater volatility. Shortly before the onset of the Asian crisis in June 1997, a committee to lay down a roadmap for moving to full capital account convertibility was appointed under the Chairmanship of S. S. Tarapore. We will refer to this Committee as Tarapore I. The Committee adopted a three fold approach.

[7] This forex turnover is more than 10 times the daily turnover of global equity markets (at $167 billion), 40 times the daily turnover of the NYSE (at $46 billion) and on an *annual basis* the forex turnover is more than 10 times the value of the combined world GDP (estimated at $36 trillion).

Firstly, it enumerated the major kinds of restrictions that were in force in India for capital account transactions. For this purpose, it grouped these restrictions according to the sector that they were applied to viz. (i) Corporates (Domestic/Resident) (ii) Corporates (Foreign/Non-Resident) (iii) Banks (Domestic/Resident) (iv) Banks (Foreign/Non-Resident) (v) Non Bank Financial Institutions (Resident) (vi) Non Bank financial institutions (Non-Resident) or what are now popularly called as foreign institutional investors) (vii) Individual (Residents) (viii) Individuals (Non-Residents) and (ix) Financial Markets.

Secondly, the Committee laid down a framework for the progressive dismantling of each of these restrictions over a short span of three years (that is, by April 2000).

Thirdly, it laid down a series of macroeconomic conditions that needed to be fulfilled before CAC was finally attained. These conditions are listed in Table 5 (together with the position obtaining on each of them as at end of 2005-06, that is, 6 years after CAC was supposed to be in place).

4.2 Second CAC Committee (Tarapore II)

The Asian crisis cast the entire issue of capital account liberalization in a fresh perspective. As Goldstein (1998), Singh (2002), Bhalla & Nachane (2001) etc. have noted the extent of capital account liberalization made a big difference to the incidence of the crisis on individual countries, and countries like India and China managed to avoid the worst consequences of the crisis mainly because their capital accounts still had a number of restrictions in place. The sobering effects of the crisis meant that the recommendations of Tarapore I had to be shelved for a few years subsequent to the crisis.

However, following the high growth phase of the last few years, Indian policymakers once again began flirting with the CAC idea. A new committee was hastily set up once again under the Chairmanship of S. S. Tarapore, with many notable "champions" of CAC on board.[8] We will refer to this Committee as Tarapore II. This Committee once again followed an approach much similar in spirit to that of the earlier Committee. It began by reviewing the extent to which the earlier Committee's recommendations had been actually implemented. It then laid down a detailed time-frame for achieving full convertibility and also drew out a new set of safety guidelines. Let us turn briefly to each of these aspects in turn.

Table 6 is an "*action taken report*" on the major recommendations of Tarapore I. It shows that most of the recommendations have been either followed or even exceeded. So one may say that there has already been a "*creeping movement*" in the direction of CAC. However, Tarapore II is far more ambitious in the scope of its recommendations, and intends to take India quite a bit further along the road to full (or almost full) capital account convertibility. This it proposes to do progressively in three phases: Phase I (2006-07), Phase II (2007-09) and Phase III (2009-11). The major recommendations of Tarapore II are set out below:

1. Removal of overall ECB ceiling of US $ 22 billion and removal of restrictions on end-use of ECBs.

[8] As a matter of fact, notwithstanding the fact that the Committee chairman was a highly respected senior central banker, well known for his independent views, the general feeling was that the composition of the Committee was loaded heavily in favour of the officially desired result – stratagem increasingly resorted to by Indian governments in the past two decades.

2. Limits on corporate investments abroad be doubled from the current limit of 200% of net worth.

3. Banks be allowed to borrow overseas up to 50% of paid-up capital and reserves in Phase I, which amount can be raised to 75% in Phase II and 100% in Phase III.

4. As against the current limit of $25,000, individuals be allowed to remit abroad (annually) up to $50,000 in Phase I, $ 100,000 in Phase II and $200,000 in Phase III.

5. Currently only NRIs are allowed to invest in companies listed on Indian stock exchanges. The Committee recommends extension of this facility to all non-residents (through SEBI registered entities such as mutual funds and other portfolio management schemes)

6. FIIs be *prohibited* from raising money through Participatory Notes (PNs).

4.3 The Issue of Participatory Notes

As noted above, Tarapore II has explicitly demanded a ban on PNs. However, this was not a unanimous decision of the Committee. As a matter of fact, two members had submitted notes of dissent. The issue is a rather controversial one, especially as the RBI and the Finance Ministry view it from radically different perspectives. PNs are instruments similar to contract notes issued by registered FIIs to overseas clients, who are not directly eligible to invest in Indian securities markets. The PNs are issued against an underlying security thereby helping the holder to benefit from dividends and capital gains on that security.

The RBI stand on PNs was first articulated when the RBI member entered a note of dissent to the Lahiri Committee Report on *Liberalization of Foreign Institutional Investment* (2004). The RBI's case for banning PNs is based on the fact that the nature of the beneficiary or the identity of the investor is unknown, unlike in the case of FIIs registered with a financial regulator. Most of the PNs are issued to hedge funds, with opaque ownership and shifting location, which are not registered in any country or with any regulator.[9] The Lahiri Committee on the contrary, felt that the current regulations for PNs are adequate, as (with effect from 3 Feb. 2004) PNs can be issued only to regulated entities, and the FIIs issuing PNs are bound by KYC (know your customer) norms.

In my opinion, there are two major considerations which weigh the argument in favour of the RBI's point of view. Firstly, the enforcement of KYC norms is difficult because several hedge funds operate in unregulated countries behind a veil of confidentiality provisions. Even reputed institutions operate through subsidiaries in Mauritius and often stonewall on provision of information. Secondly, and even more importantly, as pointed out by M. K. Narayanan (National Security Advisor, Government of India) in a speech at the *43rd Munich Conference on Security Policy* (2007) terrorist organizations have been increasingly resorting to legitimate business enterprises and routine banking channels to fund their outfits. PNs could be thus providing a safe conduit for the movement of terrorist funding.

[9] PNs currently constitute about 25% of net portfolio investment.

4.4 Safety Guidelines

One welcome feature of Tarapore II is the recognition that the bold recommendations it has made, would need an extensive safety network in place. It thus goes to great lengths towards suggesting several measures in the money market, corporate bond market, government securities market and forex market. What is worrisome, however, is that most of these measures, while supposedly masquerading as "safety guidelines" seem specifically designed to weaken regulatory mechanisms in important segments of these markets. They thus seem more in the nature of "accompaniments" to CAC rather than "prudential" measures. The Committee has virtually nothing to say on instruments designed to insulate financial markets and the macroeconomy from the destabilizing consequences of capital inflows.

5 MEASURES FOR COPING WITH CAPITAL INFLOWS

Irrespective of whether India decides to go for full CAC or otherwise, management of capital inflows will remain an important issue. One rational policy response would then be to examine a minimal set of capital account restrictions that will mitigate the probability of financial crises of the order of the Asian Crisis (19997-1998), the LTCM crisis (1998) or the Russian crisis (1998). We examine a few such proposals below.

5.1 Tobin Taxes

Perhaps the oldest such proposal is the Tobin tax , suggested by Tobin (1978) in an influential article, though the idea itself can be traced back even further viz. to the following specific passage occurring in Keynes's General Theory (1936) (p.160):

"The introduction of a substantial Government transfer tax on all transactions might prove the most serviceable reform available, with a view to mitigating the dominance of speculation over enterprise in the United States."

The transactions tax rate usually proposed (Tobin (1978), Summers & Summers (1990), Spahn (1996) etc.) typically range from 0.05% to 0.25% of the transaction principal. The burden of the tax is inversely related to the length of the holding period.[10] Although the rate is small, as shown by Dodd (2002) it amounts to a substantial proportional increase in current transactions costs, as the typical bid-ask spreads in inter-dealer markets are between 0.01% to 0.04% (of the principal). The tax can thus be expected to reduce the returns to short-term speculation. This would be a double-edged weapon , as it would simultaneously reduce the volume of speculative *hot money* and reduce forex volatility. Additionally, it could generate substantial revenue which could be available for development purposes.[11]

In spite of its intellectual appeal, however, as a practical proposal it has not really got off the ground. There could be several reasons for this. Firstly, the proposal would require worldwide agreement and coordination. Otherwise funds will simply migrate to countries

[10] For example, a tax of 0.10% implies that a twice daily round trip carries an annual rate of interest of 146%, whereas the same figure for a twice weekly round trip reduces sharply to about 21%.

[11] D'Orville & Najman (1995) estimate that a Tobin tax of 0.25% would globally fetch a revenue of US $140 billion, whereas Felix & Sau (1996) predict the revenue generation at over twice this amount (for the same rate).

which opt out of the tax agreement.[12] There is also a distribution problem, for most of the revenue will accrue to the developed Western economies. Finally, unless the tax is applied to both the spot capital flows as well as the derivative instruments (forwards, futures, options and swaps), there may be substitution from the former to the latter.

5.2 Trip Wires-Speed Bumps Approach (TW-SB)

The essence of this approach is simple. Certain basic indicators (TWs) are defined and as and when these indicators deteriorate (below a threshold) certain safety measures (relating to capital account transactions) are "triggered off". The approach has been exciting increasing interest among economists in recent years (see Ariyoshi *et al* (2000), Grabel (2003) etc.). The TWs are usually simple indicators that are designed to warn policymakers of impending risks. Among suggested TWs [13]we may prominently mention :

(i) Ratio of official reserves to total short-term external obligations (foreign portfolio investment and total, that is, private plus public short-term hard-currency denominated foreign debt).

(ii) Ratio of foreign currency denominated debt to domestic currency denominated debt (appropriately weighted by maturity).

(iii) Ratio of short-term debt to long-term debt.

(iv) Ratio of total cumulative foreign portfolio investment to gross equity market capitalization.

Under the approach, whenever TWs cross pre-determined critical thresholds, various SBs are called into play. The latter could take several forms including:

(i) requirements on borrowers to unwind positions involving locational/maturity mismatches.

(ii) curbs on foreign borrowings.

(iii) restrictions on certain types of FPI.

(iv) import curbs (in exceptional circumstances).

5.3 The Chilean Model

Chile is widely touted as a successful example of a financial liberalization programme, but it has to be remembered that a large role in the Chilean success story is attributable to an extremely cautious approach to capital inflows that was followed from May 1992 to October 1998, and which represented an ingenious combination of the Tobin and TW-SB approaches.

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[12] The phenomenal rise of the Eurodollar market in the 1980s should serve to remind us of the scale of transactions that can occur outside a system of central bank clearing.

[13] There are also special types of TWs called "contagion TWs" which are activated in a given country (say A) whenever SBs are invoked in another country (say B). Such TWs become especially important for groups of countries with interdependent financial systems in general and interlocked funds in particular.

Central to the Chilean approach was an extremely flexible model of capital flows regulation, which incorporated five main features.

(i) A tax of 1.2% per annum on external commercial loans.

(ii) A one-year residence requirement for FDI.

(iii) A non-interest bearing reserve requirement of 30% on all types of external credits and all foreign financial investment in the country.

(iv) An exchange rate band with occasional movements permitted in the central parity rate (similar to the *snake in the tunnel* arrangement prevailing in Western Europe prior to the formation of the EMU).

(v) A restriction on outflows of Pension Funds to a maximum of 12% of their assets abroad.

The Chilean model may be regarded as a highly effective means for managing the various types of risks associated with capital account liberalization (see Section 2.3 above).

Currency risk was managed via a crawling peg arrangement complemented by inflows management. As a result the Chilean currency appreciation and current account deficit were smaller than in other Latin American countries. Hence the currency never came under attack following the Asian and Mexican crises.

Flight risk was mitigated by discouraging those inflows that carried the maximum risk, with the reserve requirements acting as a type of Tobin tax on these investments.

The minimum resident requirement on FDI reinforced long-term investments, while barricading the entry of short-term flows disguised as FDI. This effective bias against short-term capital inflows went quite some way towards containing *fragility* and *contagion risks*.

In sum, these controls played a major role in insulating the Chilean economy from the global financial turbulence of the 1990s. The most notable feature of this win-win situation is that Chile received a larger proportion of external finance (relative to GDP) as compared to other countries in the region, with FDI constituting a larger portion of the inflows than in many EMEs.

These controls had to be abandoned in 1998 in the wake of the pronounced decline in foreign inflows brought about by the combination of the Asian, Russian and LTCM crises, but there is no doubt that the Chilean model deserves careful consideration from other EMEs too.

6. CONCLUSION

In recent years, EMEs are facing increasing pressures from multilateral institutions and developed countries to liberalize their capital accounts. This case essentially rests on five claims made on behalf of capital account liberalization.

(i) Such liberalization achieves the optimum allocation of global financial resources, letting capital flow to those regions where its marginal productivity is highest. It thus helps EMEs to raise the rate of capital formation above their domestic savings rate.

(ii) Capital inflows promote long-term growth in EMEs by contributing to transfer of technology, financial know-how and management skills.

(iii) Capital inflows have a disciplining effect on domestic fiscal and monetary policy.

(iv) Capital inflows dampen the effects of exogenous shocks on the domestic economy.

(v) Free mobility of financial capital is essential for stimulating global trade.

Several of these claims are sustained in terms of the IMF's Financial Programming model. However, as we have noted in this paper, the IMF model is subject to important caveats stemming from moral hazard, asymmetric information and agency problems. Admitting these caveats casts serious doubts on several of the above claims. Besides, there are the special problems created by short-term capital mobility in terms of financial market instability, asset bubbles and other micro-economic distortions. These problems are not a new discovery, and as a matter of fact were noted by Keynes in his *General Theory* seventy years ago, as stemming from the special nature of asset markets such as "*animal spirits*" and "*herd behaviour*". The efficient markets theory, advanced as an alternative to Keynes' somber view of financial markets, fails to address the issue of the destabilizing effects on financial markets of speculative behaviour by "noisy traders". There is thus sufficient ground to cast doubts on the theoretical case for capital account liberalization.

The empirical evidence is not very reassuring either. Capital account liberalization has occasionally proved beneficial, but only for relatively developed countries, and only if accompanied by appropriate prudential measures in the financial system. In the Indian context the government has shown a keenness for accelerating capital account liberalization and going all out for full CAC. The two committees appointed to examine the issue (Tarapore I & II) have laid out a detailed roadmap for CAC, along with the necessary safeguards. To this author, it is not very evident that these committees (especially Tarapore II) have really gone into a detailed examination of all the risks attached to CAC, and devoted sufficient attention to measures such as TWSBs which have recently been experimented with in several countries. It is important to stress that the line taken by several apologists for CAC that the risks of financial instability is negligible and hence more than compensated for by the benefits ignores the magnitude of the potential costs of a crisis[14].

The TWSB measures have three special features:

(i) They can prove highly effective in insulating economies from financial crises, without impinging seriously on the volume of FDI (though it will act as a curb on short-term capital flows).

[14] As given in Mohan (2007), recapitalization of banks (subsequent to the financial crises of the 1990s) cost 55% of GDP in Argentina, 42% in Thailand, 35% in Korea and 10% in Turkey. The total welfare costs would be substantially higher.

(ii) They would be more effective in checking real currency appreciation and prove cheaper than the conventional sterilization measures usually invoked to deal with capital inflows.

(iii) Contrary to fears expressed in certain quarters, such controls need not necessarily increase the cost of foreign capital to EMEs. As a matter of fact, with effective controls in place (and the corresponding reduced vulnerability to crises), the risk premium on foreign capital is likely to decrease.

The overwhelming evidence against CAC, however, may not necessarily convince some of the *die-hard reformers* among India's current economic policymakers. Since this group has conveniently decided to regard all advice emanating from resident Indian economists as otiose, I can do no better in conclusion, than to quote from one of the leading architects of the erstwhile Washington Consensus

"At this stage full capital account liberalization promises no large benefits, while it increases the risk of things going badly wrong" – John Williamson (2006) .

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Table 1: Capital A/C Liberalization & Growth

Study	Number of countries in Sample	Openness Measure Used	Results
Quinn 1997	58	$\Delta(CAL2))$	CAC Beneficial for per capita income growth
Klein & Olivei 2000	67	CAL1	CAC Beneficial for per capita income growth if accompanied by financial deepening
Edwards 2001	55	CAL2 and $\Delta(CAL2)$	CAC Beneficial for high-income countries but not for low income countries (in terms of per capita income growth)
Arteta, Eichengree & Wyplosz 2001	51	CAL2 and $\Delta(CAL2)$	CAC Beneficial if CAL2 is used as liberalization measure
Bekaert, Harvey & Lundblad 2001	30 EMEs	Official dates of stock market liberalization	CAC Beneficial with this measure of liberalization, though most of the benefits are concentrated in the early years.
O'Donell 2001	94	CAL1 and Volume	CAC Beneficial if Volume is used as liberalization measure, but not with CAL1
Grilli & Milesi-Ferretti 1995	61	CAL1	No evidence for CAC being Beneficial for per capita economic growth
Rodrik 1998	100	CAL1	No evidence for CAC being Beneficial for per capita economic growth
Kraay 1998	117	CAL1, Volume and CAL2	CAC Beneficial if Volume is used as liberalization measure, but not with CAL1 or CAL2
Edison et al 2002	89	CAL1, CAL2 and Dates of stock market liberalization	CAC Beneficial for high-income countries and East Asian economies but not for developing economies.

Notes: $\Delta(CAL2)$ represents changes in CAL2
Volume refers to the volume of capital inflows.

Table 2: Countrywise Share of Average Daily Forex Market Turnover (as of 2004)

COUNTRY	**SHARE**
UK	31.3%
US	19.2%
JAPAN	8.3%
SINGAPORE	5.2%
GERMANY	4.9%
HONG KONG	4.2%
AUSTRALIA	3.4%
SWITZERLAND	3.3%
FRANCE	2.7%
CANADA	2.2%
OTHERS	15.3%
TOTAL	100%

Source: BIS: *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity*, 2005

Table 3: Cross-Currency Share of Trade (as of 2004)

	US $	Euro	Japanese Yen	British Sterling	Swiss Franc	Australian $	Canadian $	New Zealand $
US $	--	28%	17%	14%	4%	5%	4%	--
Euro		--	3%	2%	1%	--	--	--
Japanese Yen			--	--	--	--	--	--
British Sterling				--	---	---	--	--
Swiss Franc					--	--	--	--
Australian $						--	--	--
Canadian $							--	--
New Zealand $								--

Source: BIS: *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity*, 2005

Table 4: Capital Inflows into India (US$ Billion)

	2001-02	2002-03	2003-04	2004-05	2005-06 (P)
A. Foreign Direct Investment (I+II+III)	**6130**	**5035**	**4322**	**6051**	**7752**
I. Equity (a+b+c+d+e)	**4095**	**2764**	**2229**	**3778**	**5820**
a. Government	*2221*	*919*	*928*	*1062*	*1126*
b. RBI	*767*	*739*	*534*	*1258*	*2233*
c. NRI	*35*	--	--	--	--
d. Acquisition of Shares	*881*	*916*	*735*	*930*	*2181*
e. Equity capital of Unincorporated Bodies	*191*	*190*	*32*	*528*	*280*
II. Reinvested Earnings	**1645**	**1833**	**1460**	**1904**	**1676**
III. Other Capital	**390**	**438**	**633**	**369**	**256**
B. Foreign Portfolio Investment (a+b+c)	**2021**	**979**	**11377**	**9315**	**12492**
a. GDRs/ADRs	*477*	*600*	*459*	*613*	*2552*
b.FIIs	*1505*	*377*	*10918*	*8686*	*9926*
c. Ofshore Funds and others	*39*	*2*	-	*16*	*14*
Total Investment (A+B)	**8151**	**6014**	**15699**	**15366**	**20244**

Table 5: Preconditions for Capital A/C Liberalization (Tarapore I)

Item	Precondition	Position (2005-06)
Gross Fiscal Deficit (as % of GDP)	<3.5%	4.1%
Inflation	3% to 5% (3-year average)	4.6% (3-year average)
Gross NPAs (as % of total advances)	<5%	5.2% (as of 2004-05)
Average effective CRR	3.0%	5.0%
Current A/c deficit (as % of GDP)	<2.0%	>3.0%
Debt servicing ratio	<20%	10.2%
Forex reserves	>6 months Imports cover	11.6 months Imports cover

Table 6: Implementation of Recommendations of Tarapore Committee I

Recommendations	Action Taken
1.Direct Investment in foreign ventures by Indian corporates be allowed up to $50 million at level of authorized dealer (anything above this limit to be routed through a special committee)	This limit currently stands at $100 million
2. Corporates be permitted to open offices abroad	Implemented
3. Restrictions on end-use of ECBs (external commercial borrowings) for rupee expenditures be removed	Implemented
4. Exporters be allowed to retain 100% of forex earnings in foreign currency accounts	Implemented
5. Direct portfolio investment by non-residents be allowed (on the same footing as FIIs and NRIs)	Disallowed
6. Banks be allowed to borrow in overseas markets and to deploy funds outside India	Largely implemented
7. Individuals be allowed to invest in markets abroad to the extent of $25,000	Implemented
8. Residents be allowed to have foreign currency denominated deposits with corporates and banks	Allowed but subject to some restrictions.