The macroeconomic fallout of an IFC

chapter 7

1. Introduction

As suggested earlier, two significant benefits would accrue from having an IFC in Mumbai that is rooted in a strong domestic financial system:

1. ***Improvements in Domestic Finance***: Finance is the 'brain' of any economy. In India it mobilises resources for and allocates an investment-to-GDP ratio of over 30% (roughly $240 billion, or Rs. 11 trillion per year as of 2005). It ensures value-maintenance and risk management of debt and equity stocks (about Rs. 50–60 trillion) issued in the form of tradable financial securities. Higher growth will result when the Indian economy is served by a better financial system than the sub-optimal one it has now.

   The transformation in Indian manufacturing since 1995 shows that the best way to ensure that the local economy gets top quality goods is to have them pass the test of 'export quality'. This logic applies equally to finance. India can only produce world-quality financial services if it competes in and exports to the global market for IFS. At present, India's share of that market is zero, reflecting the artificially restrained abilities of its financial sector. In comparison, India's share of global merchandise exports had never dropped to zero, even in the worst policy environment of the 1960s and 1970s. Creating an IFC in Mumbai is therefore of strategic importance to India's growth.
2. **IFS *Exports***: Like exports of IT services, IFS exports are labour, skill and IT intensive. They constitute a natural global market opportunity for India. Of all the cities aspiring to become IFCs and GFCs in the 21st century, Mumbai perhaps has the most potential for becoming a GFC by 2025. But it also faces great challenges in realising that potential – in terms of financial liberalisation, urban infrastructure and governance. Mumbai will, at least, need to first become an IFC like Paris, Frankfurt, Sydney and Tokyo – which meet the IFS needs of their national economies – by 2015. If it does not, India will be buying over $48 billion of IFS from abroad. But, if Mumbai becomes an IFC, it can go beyond serving its national market and capture IFS export revenues. The opening up of such a large export-oriented sector would influence India's growth trajectory; exports of IFS from India could be bigger than IT exports from India.

The HPEC believes it is critical for India's development, to have a world class financial system with IFS-provision capabilities that can: (a) mobilise and allocate private and public resources as efficiently as possible; (b) manage the risks involved in optimising and protecting the value of its financial stocks; (c) ensure that financial stocks yield returns that minimise the risks of servicing those stocks; and (d) export financial services to the global economy on a competitive basis.

That said, however, it is important for the Committee to stress how mindful it is, of the macroeconomic and macro-financial implications for the domestic economy, of measures it believes need to be implemented to create an IFC in Mumbai. India needs to carefully avoid the mistakes of macro policy in Mexico, Thailand, South Korea, and Indonesia, so as to avoid the ingredients which led to currency crises and banking crises. Conversely, it is equally mindful of policies that militate against the prospect of creating a credible Indian IFC. The policy implications that concern the Committee

most, impinge *inter alia,* upon: fiscal policy, monetary policy, exchange rate policy, and capital account controls. These policies need to be considered by policy-makers for the simple reason that there is no economic or financial policy or instrument that is not double-edged.

An advantage gained by some in the pursuit of a particular policy for a particular purpose (like setting up an IFC) invariably results in a disadvantage suffered by others who may not be directly involved in benefiting from it. On balance, the question is whether the sum total of the advantages that accrue to the economy and populace at large outweigh the sum total of the disadvantages or vice versa.

It would be remiss of the Committee to omit mentioning, even *en passant*, what some of these implications might be when it comes to what it believes needs to be done for an IFC to emerge in Mumbai. This Chapter attempts to meet that obligation.

2. Implications for fiscal policy & deficit reduction

There is a strong connection between fiscal stability and a healthy, efficient financial system. Many of the problems faced by the financial system in India owe their origins in part to:

* Fiscal policies pursued since the mid-1970s that have: (a) distorted the functioning of key markets – including financial markets – by emitting the wrong price signals; (b) diverted and dissipated scarce public resources in low-yield expenditures; and (c) created too large and inefficient a state-owned institutional superstructure, with high financial resource absorption and low financial yield, in too many areas of economic activity
* the means resorted to for financing and sustaining gross consolidated fiscal deficits (*i.e.*, GCFD – of the centre, states, PSUs and quasi-fiscal accounts like the oil pool account) that have been too large for too long.[1]

The enactment of FRBM legislation by the Centre and subsequently, following the recommendations of the Twelfth Finance Commission, by a majority of state governments as well, reflects recognition that this situation had to be rectified. Progress needed to be made to reduce the GCFD beginning with reducing the deficit of the Centre. But, what is being achieved through FRBM is neither rapid nor

[1]It has often been asserted (by IFIs and renowned economists) that fiscal deficits of over 3–4% of GDP in any country are "undesirable, unfinanceable and unsustainable". But India has managed to finance and sustain deficits larger than these proportions (ranging from 7–11% of GDP) for over two decades. The general view is that it has managed to do so relatively successfully; without compromising its growth potential or creating too many distortions in markets that have caused serious collateral damage. That, however, is a misleading impression. The indirect costs in terms of financial repression and growth depression have been obscured and are unamenable to easy quantification. India has managed to finance its deficits at below-market rates through pre-emption. With the reforms of 1991, and a commitment to reducing pre-emption, that situation has been changing; but too slowly. Financing too large, and for too long, a fiscal deficit in this manner has, among other things: (a) slowed down and impeded the creation of an effective market for government and corporate bonds that operates along global norms and is open to global investors; (b) created a bias toward a capital market that leans too heavily toward trading risk-paper (equity) without being balanced by coupon (fixed return) debt, thus preventing investors from managing properly their exposure along a risk-return matrix given their investment objectives; (c) crowded out more efficient private investment in the domestic market for decades; (d) put upward pressure on Indian interest rates; (e) created artificial regulatory burdens for RBI that have exacerbated financial repression by impeding migration from a bank-dominated financial system to a market dominated one in order to protect the government's interests as both the largest borrower in the financial system and the largest owner of financial institutions; (f) created too many conflicts-of-interest in financial regime governance that have influenced adversely its credibility, quality and content; (g) protected banks from effective competition in the domestic market by the erection of high barriers to competitive entry thus fostering inefficient intermediation with high margins and high costs for all savers/investors; (h) forced a degree of segmentation across financial markets (banking, insurance, capital markets, *etc.*) that is damaging to a healthy financial system and sound capital market development; (j) induced inefficiencies in resource use; (k) indirectly impeded the emergence of essential derivatives markets and risk management instruments, particularly for the management of currency and interest rate risks; and (m) indirectly and inadvertently created a situation in which the lowest returns on financial savings (adjusting for risk and inflation) are accrued by the poorest depositors.

transformational enough. Further, as recent differences of opinion at policy-making levels suggest, there is a perceived trade-off between maintaining the schedule for deficit reduction targets under FRBM, and risking a loss of economic momentum created by rapid growth. The impact of such a trade-off could be ameliorated by having a 'public debt reduction target rule' added to the deficit reduction target rules under FRBM.[2]

But, whatever rules are applied, the aim of fiscal policy over the next 5–10 years should be to achieve GCFD reductions (through adjustments in revenue, expenditure and public asset sales) that bring: (a) the GCFD down to 4–5% of GDP; and (b) overall public short and long-term debt (central, PSU and states) down to well below the present 80% of GDP. The scale of reduction in the debt/GDP ratio that is required is bigger than appears to be the case, as many off-balance-sheet liabilities (*e.g.*, pensions) need to be fully recognised in an improved accounting and disclosure framework, while the present estimate (80%) ignores these liabilities.[3] Those targets should be achieved within a time-frame that is consistent with stable and non-disruptive adjustments in government accounts, and in financial markets, while maintaining growth momentum or even increasing it.

Both measures are necessary in order to achieve (and maintain) the kind of fiscal stability that, in the Committee's view, is a fundamental requirement for a successful and credible IFC to emerge in Mumbai. Strict adherence to clear, transparent 'golden rules' aimed at achieving such stability is critical. That is particularly true for a large, plural, federal, developing country like India attempting to establish an IFC while maintaining a reputation and image of integrity and probity in the world of global finance.

Confidence (on the part of domestic and global financial markets) in the outlook for long-term macroeconomic stability and fiscal management in India is a *sine qua non* for: (a) the participation of global financial firms in an Indian IFC; (b) its ability to transact complex financial transactions with multi-decade time horizons; and (c) the ability of the government to shift part of its public financing burden from domestic financial markets and investors (who carry excessive India risk today) to global markets (that desire more India risk in their globally diversified portfolios).

In consonance with the kind of macroeconomic backdrop needed for having a successful IFC in India, the HPEC would countenance the pursuit of a fiscal policy that minimises distortions in the proper functioning of goods and services markets. Such distortions occur either through: (a) direct price suppression or manipulation (however well intended) as in the case of the oil pool subsidy account; or (b) through interventionist public mechanisms whose protection – through implicit or explicit government capital guarantees that induce inefficiency, or through the suppression of competition in markets dominated by them – also results in compromising the efficient functioning of financial markets and distorts resource allocation.

But there are political economy implications of adhering firmly to such rules. They might result in the government being accused of having an 'anti-poor' bias if cutting deficits involves reducing expenditure on populist schemes. It is difficult to see, however, how deficit reduction could be seen as anti-poor *per se*. The interests of the poor are never served by running high fiscal deficits that distort finance, send the wrong price signals to a number of key markets, and destabilise the economy.

Financial repression imposes a regressive tax on unsophisticated users of finance. The commercially sophisticated elite avoid financial instruments where artificially low returns are given through state interference – *i.e.*, the richest households hold very small balances in bank savings accounts. A high fiscal deficit usually results in long-term effects that are even more anti-poor – as is the case when cumulative deficits require partial monetisation and inflation (the most

[2] For a discussion of debt/GDP rules, see Mistry (2006).

[3] For a first effort on measuring the implicit pension debt on account of the civil servants pension, see Bhardwaj and Dave (2006).

regressive tax of all). Over time, high fiscal deficits result in governments (states and centre) running out of headroom to finance physical and social infrastructure in poor rural areas and urban slums. Similarly there is no headroom – without a substantial and politically difficult restructuring of expenditure priorities at state and central levels – to provide income support for subsistence consumption targeted at the poor.

Instead fiscal policy remains orientated toward: (a) maintaining an edifice of government that is overstaffed and undercompensated at senior levels, leading to distortions and inefficiency; and (b) unsustainable market-distorting price subsidies on a number of key goods (oil, diesel, gasoline and kerosene) that result in transferring more income to the rich and middle classes than to the poor, whose consumption of such goods, direct and indirect, is much lower. The combined effect distorts prices in too many markets. It disables prices from equilibrating supply and demand thus preventing markets from performing their role. It compromises the use of inflation-targeting as a tool of monetary policy. It makes efficient resource allocation via the financial system more difficult to achieve. Having a low fiscal deficit over the long term, and reorienting expenditure priorities toward income support for the poor, will have a greater 'pro-poor' effect than extant policies. That strategy will result in spreading the benefits of growth more evenly than they are now.

Running a large fiscal deficit constrains a country's ability to open its capital account without running undue risks. Countries that have opened capital accounts and stabilised or pegged their exchange rates – while running large fiscal deficits financed in foreign currencies – have triggered an economic crisis.[4] That happened in Mexico in 1994, Argentina in 2001–02, Russia in 1998, Ecuador in 1999 and Turkey in 2001. When the debt-to-GDP ratio starts rising, confidence in the government's ability to repay debt denominated in foreign currency can erode rapidly. That, in turn, makes it difficult for government to sell bonds to domestic and foreign investors. Bond prices fall, sometimes accompanied by herd exits. This is particularly dangerous in a country with a history of financial repression where banks hold too large a part of government debt. A drop in the value of bonds can trigger a banking crisis and exacerbate the fiscal deficit by requiring the government to recapitalise banks.

GoI has never defaulted on its debt in the past. It aims to maintain a policy stance that encourages the world to be confident that it will never do so in the future. However, even when the possibility of default on sovereign obligations is low, the additional costs to the economy – arising from rising interest payments due to increasing levels of government debt caused by persistently large deficits – are significant. Domestic interest rates rise, slowing down private consumption and investment. That can result in lower profitability for companies with foreign currency borrowings. Interest rates for such foreign borrowings rise when profitability falls and takes the credit rating of the company down.

3. Financing public debt differently

The *first* priority for Indian fiscal policy is the stabilisation of consolidated debt/GDP, inclusive of all implicit liabilities such as civil servants' pensions, at 50–65% of GDP. This issue has been well understood in the debate on fiscal policy over the last 15 years. *Second*, public finance thinking in India has not made progress in considering more efficient, mechanisms for public borrowing. Until 1992 banks were required to hold a large share of their assets as government bonds under the Statutory Liquidity Ratio (SLR) requirement. They were paid lower than market rates on government bonds. After the liberalisation of 1993, rates on time deposits ceased to be fixed. But banks are still required to hold an astonishing 25% of their assets in

[4] An extensive literature has pointed to the role of pegged exchange rates in generating currency crises and speculative attacks. In addition, exchange rate flexibility assists macroeconomic stability by offering a 'shock absorber' (Edwards and Yeyati, 2003).

government bonds. Demand deposits pay negative real interest rates. Similar pre-emption is in place with insurance and pensions.

The argument is made that improved liquidity and market efficiency in financial markets will limit the ability of the government to control all points on the yield curve; which (it is argued) is required for reducing the cost of borrowing for the government. When such arguments are deployed for repression, the financial system suffers a loss of credibility and confidence. Banking regulators are supposed to uphold sound risk measurement/management to support their demands for minimum levels of risk capital being held by banks. In applying their judgements of risk in bank portfolios, regulators must be technically proficient, unbiased and impartial in evaluating the risks of portfolio choices made by banks. However, their ability to be unbiased is compromised when portfolio choices are driven by regulators themselves.

When regulation imposes rules that support other aims (such as financing deficits) that have no bearing on the safety and soundness of the banking system, what occurs is a loss of credibility in the financial system on a global scale. It raises doubts in the minds of the global financial community about the technical soundness and supposed lack of bias in banking regulation.

The global IFS market involves competition not just across IFCs and global financial firms but across different systems of financial regulation. As long as India continues with its present system of financial regulation, it will induce a lack of respect and credibility, for IFS provided from India and will compromise the functioning and competitiveness of an Indian IFC.

There is a need, and an opportunity, to find more efficient, less counterproductive ways of financing India's large and rapidly escalating public debt. A more efficient and better developed financial system would create many more options for doing so. The creation of IFS provision capacity through an IFC in Mumbai would add to those options by increasing the range of opportunities for public borrowing with fewer adverse side-effects and consequences for the Indian financial system.

The basic imperative of a sound non-distortionary mechanism, for financing the fiscal deficit in a globally credible financial system, is that *sovereign or sub-sovereign bonds should be bought voluntarily by any kind of buyer, without any direction, coercion or restriction* by the government. It should not be considered necessary to distort national finance in order to sell bonds to finance public deficits. That would imply abandoning the policy framework which presently governs investment by banking, pensions and insurance.

If nothing else changes, the removal of repression would increase the cost of financing public debt. It is intuitively obvious that with coercion out of the picture, and with BCD markets that are liquid and efficient, higher interest rates may need to be paid in order to attract voluntary buyers of bonds. However, there are three lines of thought which address this problem:

1. A sophisticated financial system requires sovereign bonds as a credit bell-weather

The liberalisation of finance and wider entry of pension funds, insurance companies, mutual funds, *etc.* into the sovereign bond market will increase demand for long-term INR bonds. These investors need to buy government bonds as part of prudent portfolio management strategies, on a voluntary basis, without coercion. As India becomes a more mature market economy, the need for CRR and SLR should disappear. When that happens there is no likelihood of demand for GoI bond holdings disappearing as well. For prudential and portfolio balancing reasons, banks and other investors will still need to have holdings of GoI bonds in their asset portfolios. It is quite possible that, with investor desire to hold GoI bonds becoming voluntary rather than forced, demand for such paper will rise and not fall.

The asset choices of the mutual fund industry exemplify this lack of risk of shifting away from financial repression. Formerly, in an India that was more repressed than it is now, mutual funds were the monopoly of

UTI under a bank-monopolised financial system. The shift towards a market-driven system has come with the rapid growth of mutual funds. Regulation of mutual funds is now free of repression. MFs are not obliged to hold government bonds. Yet, without compulsion, MFs have invested very large sums of money in government bonds. Easing up on repressive policies for MFs has not automatically created problems with their buying government bonds.

At present, the size of the asset portfolios of banks, insurance companies and pension funds in India are relatively small by world standards. The total assets of these three groups of firms, expressed as percent of GDP, are one-half the size that is commensurate with the level of development of the Indian economy. When financial repression is eased, and a superior system of financial governance is put into place, these three sectors are likely to grow dramatically. That will induce new sources of demand for GOI bonds. If greater demand is not matched by increased supply, the prices of such bonds should rise, implying that coupon rates could be reduced.

2. Global fixed income investors are interested in INR denominated sovereign bonds, and it is in India's best interest to sell these to them. Traditionally, India has been reticent about financing its fiscal deficit through the sale of sovereign bonds to global investors. Many economists trained in the 1960s and 1970s when derivatives markets did not exist (and still unfamiliar with or distrustful of currency derivatives and how markets in them work) felt that financing the fiscal deficit through issuance of dollar-denominated bonds was dangerous. This reticence has been based on a perception of 'original sin' where dollar-denominated liabilities represent a currency mismatch for a state whose revenues are in INR. **That issue does not arise when government bonds are sold to global investors but denominated in INR**.[5] In the context of an open capital account, INR bond issuance avoids concerns about incurring currency risk on sovereign debt. It also averts the liquidity risk involved in servicing such debt, should a sudden balance-of-payments crisis materialise because of an unforeseeable exogenous shock[6].

When global investors hold GOI debt denominated in INR, *they* bear the currency risk.[7] In a scenario with a sudden crisis of confidence and capital flight out of India, the INR drops and bond prices drop – this affects global investors holding INR bonds and does not exert balance sheet effects on the government. These balance sheet effects are spread over the very large base of assets held by global institutional investors. It is, therefore, safe to permit such investors to buy INR sovereign bonds as they wish without limit. The only risk in doing so is that such investors, uninfluenced by government direction, might dump GOI bonds on the open market when the government of the day pursues unsound macroeconomic policies or generates political risk. As a warning for restraint, that would be a useful signal for global investors to emit. It is one that any prudent government should respond to appropriately.

[5]The goal of policy makers has long been to have policies on capital flows which are 'prudent'. Yet, the overall policies on debt financing have decreased financial stability in two respects (see `http://tinyurl.com/37vq58` on the web). First, quasi-state programs such as the MIB have, for all practical purposes, entailed a sovereign bond program denominated in foreign currency. These have flirted with original sin. The present Indian policy on public and private borrowings is paradoxically asymmetrical. It causes an overall asset-liability currency mismatch when Indian firms are permitted to borrow overseas in foreign currencies in increasing amounts, while FII investment in INR denominated bonds is still heavily restricted. The policy framework encourages original sin on the part of firms, shifts IFS revenues outside the country, and involves an opportunity cost for liquidity and market efficiency on the local INR denominated corporate bond market while putting upward pressure on Indian interest rates. Both these strategies serve to ***increase*** the macroeconomic risk for the Indian economy. A reversal of these policies – discouraging original sin and encouraging local bond market development – would simultaneously improve systemic stability and growth.

[6]Of course such risk is already being incurred on borrowings from the IFIs and regional banks which are quite large but concessional. Moreover India has more leverage in dealing with such creditors than with impartial bond markets that are much less easy to persuade or manipulate.

[7]For a treatment of international developments on local currency bond markets, see Burger and Warnock (2006).

There is now a large demand for long-term INR bonds on the part of global fixed income investors. One reason is portfolio diversification. No large global investor can afford to have less than 1% of total fixed-income investment in bonds issued by a country which has over 2% of world GDP and is one of the fastest growing economies of the world. In addition, as a growing economy with sustained productivity increases, it is likely that the INR will appreciate through Belassa-Samuelson effects. Thus an international pension fund looking for a 30-year bond might prefer an INR bond to a USD bond. Indeed most global portfolio managers (especially pension funds) bemoan the absence of access to a larger pool of INR denominated paper in global bond and money markets across the maturity and duration spectrum from 7-days to 30-years. If India had a mere 1–2% share in global fixed-income portfolios, this would represent a quantum of investment significantly larger than the forced-holdings of bonds by domestic banks, insurance companies and pension funds. In an optimal long maturity global fixed income portfolio, the holdings of INR paper are likely to be closer to 5–6%.

In the judgment of the HPEC, opening INR denominated sovereign bond purchases to global institutional investors, and simultaneously removing all forms of repression in the domestic financial system, will result in a significantly higher probability of *lowering* the financing cost for GOI, than the low probability of increasing that cost.

A fiscal deficit financed by GOI bonds issued in global capital markets, **but denominated in INR** – rather than financed by PSU banks that monopolise domestic bank deposits – would alleviate crowding out effects in the domestic market. It would release more domestic resources for more efficient private investment, and alleviate upward pressure on local interest rates. That would reduce the need for GOI and RBI to protect the profitability and balance sheets of state-owned banks. It would create more room for neutral regulation that allowed greater competition, efficiency and innovation in banking and other financial markets. It is thus a key ingredient for having a successful IFC in India.

3. Sophisticated financial structures for infrastructure projects will help to put many assets "off balance sheet" thus reducing the public borrowing requirement. The third bit of innovative thinking in public finance concerns shifting the burden of financing infrastructure from government budgets to corporate balance sheets. This can be done by improving the policy and regulatory climate for public private partnerships (PPPs). As the private sector invests in infrastructure, the pressure to keep issuing public debt for capital investment would diminish.[8]

Today a large part of the burden of borrowing for infrastructure falls on the balance sheet of the government. In a PPP framework under the *viability gap funding model*, a private partner bids for a grant covering the difference between the cost of the project and the profit expected from it. The project goes to the lowest bidder. Spending by the government is limited to the grant. The loans that a private company takes to finance the project do not appear in the government's accounts. If the grant given by government is financed by a deficit then only that element appears in the debt liability of GOI. Greater resort to PPPs would support the downsizing of government expenditure required to achieve stabilisation of the public debt/GDP ratio. The Ministry of Finance has embarked on establishing a viability gap funding mechanism. This needs to be scaled up, *at the expense of traditional mechanisms for State expenditure on infrastructure*, thus yielding reduced government expenditure and thus deficits.

4. The mutuality of interests in modernising debt management and having an IFC

Moving away from financial pre-emption for financing the fiscal deficit is essential

[8] Analysis of investment requirements, and potential for private sector financing, has been offered at great length in Mohan (1996).

in its own right as the most appropriate step toward more rational development of the Indian financial system in overcoming the distorted legacies of the past. At the same time it would be highly supportive of creating an IFC in Mumbai. Reciprocally, an IFC in Mumbai would provide many more options for diversifying sources of public borrowing, globalising the market for INR denominated debt, and reducing its costs. The emergence of an active INR bond market (as part of an integrated BCD package) that attracted full participation of global portfolio investors – especially long-term, fixed-income investors such as pension funds – would create new opportunities for the export of IFS and enhance the stature of an IFC in Mumbai. It would provide impetus to a currency trading market as well as to a more diversified derivatives market that traded contracts in currencies and INR interest rates.

In recent years, a number of developing countries have attempted to attract global investors to buy their local currency bonds. India has, paradoxically, discouraged them from doing so; although that policy posture appears to be changing. India is unusually well placed to attract global investment in INR sovereign bonds because voluntary demand for them in the global investment community appears to be far larger than GoI's inclination to accommodate that demand. Looking ahead a sound public borrowing strategy for India would incorporate three elements:

1. An independent Indian 'debt management office' – operating either as an autonomous agency or under the Ministry of Finance – that regularly auctioned a large quantum of INR denominated bonds in an IFC in Mumbai. The size of these auctions would be substantial by world standards and would enhance Mumbai's stature as an IFC.
2. A liquid INR yield curve along with a functional Bond-Currency-Derivatives (BCD) nexus and vigorous arbitrage by sophisticated investors with Direct Market Access, ensuring that the yield curve is arbitrage free, with an associated set of interest rate derivatives for risk management.
3. Investors from all over the world participating in the INR bond market in Mumbai.

Each of these three elements bolsters the other two. Creating an INR yield curve – a fundamental pre-requisite for an IFC in Mumbai – and ensuring that it sends the right signals, requires macroeconomic stability as a critical pre-condition. The absence of such stability would result in a loss of confidence in the economic governance of India. If that happened, domestic and foreign investors would shun INR bonds, drive up INR interest rates and precipitate a crisis. For that reason, it is incompatible to consider having an IFC and continuing to run destabilising deficits.

The market for *corporate* bonds is an integral part of the BCD nexus that this report has stressed the importance of. Progress in creating an independent debt management office that auctioned *sovereign* bonds and notes across the maturity spectrum into a liquid INR yield curve in Mumbai, with international investors participating in this market has some interesting downstream implications. In particular, it would create the opportunity for creditworthy *sub-sovereign* issuers – *i.e.*, state governments and municipalities – to access the same pool of investors. It would create a new sub-market in India that does not yet exist; although sub-sovereign and municipal bond markets are key features of bond markets in developed financial systems.

While there has been legitimate criticism of GoI for persistent fiscal deficits, it has not been given the credit it deserves for the transformation in public finance that it has painstakingly wrought. Progress has been sufficiently tortuous as to be invisible. Yet it has been profound. Over the last decade, distortionary taxes like customs and excise have been removed with a shift towards VAT. High marginal income tax rates have been reduced. Double-taxation of firms has been partially reformed. The incidence of taxation has increased its focus on consumption. The FRBM Act has been passed and income tax collection/accounting

has been automated. All these measures amount to a paradigm shift in fiscal policy and practice. Public finance in India today has been transformed quite dramatically from the situation of 1992; but the size of fiscal deficits has been slower to respond through desirable shrinkage.

These achievements need to be built upon with a commensurate paradigm shift in debt management. The aim should be to create a new policy framework for public borrowing that mirrors practice in mature markets. Resorting to global markets for public borrowing through an IFC in Mumbai would require some new elements when compared with current practices. In the present framework, GoI bonds are sold by RBI. Designated buyers (like banks and pension funds) have no choice but to buy them. Under the alternative paradigm, with bonds auctioned to voluntary buyers (domestic and global), the government will need to work harder in providing the information required by the global fixed income investment community to make reasoned judgements. This will involve:

1. Advertising clearly in headline terms the gross consolidated fiscal deficit of India rather than obscuring it by referring to the fiscal deficit run by the centre. GoI needs to publish regular reports of *total* public debt: *i.e.*, of central and state governments. That should include: implicit/explicit government guarantees, implicit pension debt and the total PSBR (public sector borrowing requirement) including the debt of public sector companies that has a contingent GoI or state government guarantee. Similar reports should be published by state governments with the aim of publishing the consolidated debt of the centre and all states. These reports should be accessible to the public. They should appear on the website of the Ministry of Finance every quarter. The consolidation of information, in one place, of all liabilities of all arms of government is a key milestone for strengthening public debt management. This information needs to be fully shared with the global bond trading and investment community.

2. Making targeted commitments under the FRBMA binding. The FRBMA does not specify the strictures that follow if the existing deficit targets are violated. There is a need to introduce strict penalty clauses and bolster fiscal accountability about what would happen if the targets are violated.

3. Extending FRBMA rules and principles to States: While the FRBMA was a key milestone, it addressed only the fiscal deficit of the central government and not that of state governments. Current estimates for the consolidated deficit of the centre and states amount to some of the most extravagant aggregate deficits in the world. State governments have been given incentives to restrict deficits by the 12th Finance Commission. But deficit reduction targets have been not been defined in a state-specific manner. There need to be state specific targets, agreed to by state governments, which the states should then be held to and penalised if they are not met. MoF needs to translate the full picture, in terms of projections for the Centre and for the States, into projected numbers for the consolidated deficit of the centre and states, and projected numbers for the consolidated debt/GDP ratio. Cogent, comprehensive analytical documents showing historical statistics, present stocks and projections for five years need to come out from the Ministry of Finance to the global fixed income investment community, where the unit of discussion is the consolidated Indian State, not just the central government.

4. Lowering the Total Public Debt/GDP Ratio: The structure of the FBRM Act places undue emphasis on the annual fiscal *deficit* in terms of financial flow and insufficient emphasis on the cumulative effect in terms of the debt stock thus created. Economic logic does not suggest only that fiscal deficits should be low. It also suggests that the debt/GDP ratio should be low and stable. Low fiscal deficits are a means to an end: *i.e.*, a fiscal policy framework in which the debt/GDP

ratio falls in all normal years except if there is a war or a comparable national calamity. A greater focus needs to be put on full measurement of public debt, avoiding new contingent liabilities, and finding new ways to ensure that properly-measured public debt (which is presently well in excess of 80% of GDP) does not cross a publicly stated ceiling such as 50–65% of GDP. The HPEC is reluctant to suggest a rigid ceiling without studying in more depth what ceiling would be appropriate for India. For that reason it has suggested a range that is typically found around the world in terms of prudent public debt management practice. The HPEC also recommends that, in reducing public debt, governments at all levels consider not only revenue and expenditure measures but other measures – in particular public asset sales at the appropriate time and at the appropriate price – to bring about a reduction in public debt. The proceeds of such sales should be applied exclusively to public debt reduction and no other purpose.

In summary, quarterly reports tracking the performance of the centre, states, PSUs and the consolidated fiscal situation showing the size of the total deficit and the size of outstanding debt (including implicit liabilities), need to be made available to the investing public in a timely manner. Projections of the deficit, for five years on a rolling basis, should be released every quarter. The Ministry of Finance should be required to explain deviations from projections to the public and to Parliament. This requires making substantial progress on the accuracy of fiscal measurement and improving the quality and performance of public institutions.

5. Implications for monetary policy

A key element in managing a macroeconomy with large fiscal deficits and rapidly growing public debt is monetary policy.[9] Its conduct becomes more complex and sophisticated with an open capital account which, as discussed below, is a *sine qua non* for an IFC in the 21st century. With inordinately large fiscal deficits, and a large stock of public debt, now exceeding 80% of GDP, monetary policy has to bear the brunt of adjustment when fiscal policy proves too sticky. The expansionary effect of large fiscal deficits has often to be countered by monetary policy: *i.e.*, through higher interest rates and more pre-emption than would otherwise prevail.[10]

The expanded supply of government paper has to remain attractive to the domestic investor in order to be absorbed. That drives up rates, increases the government's borrowing costs, further increases the fiscal deficit, and expands the stock of public debt explosively through compounding. An ever escalating spiral resulting in a loss of fiscal control is thus set in motion. It becomes difficult to break out of that spiral except through: (a) gradual or disruptive fiscal adjustment – usually too little too late – which incurs political problems; (b) draconian monetary adjustment that throws the economy out of kilter and creates economic as well as political problems; or (c) transferring the costs of adjustment to foreign bondholders through currency depreciation, if the country is an issuer of reserve currency and borrows from foreign investors in its own currency (*e.g.*, the US).

With large fiscal deficits, an open capital account worsens the problem. In open-economy macroeconomics, when a rapidly growing economy opens up, stabilisation of the business cycle through fiscal policy becomes ineffective. Achieving the same result through monetary policy is more effective. As the Indian economy has opened

[9] For a treatment of contemporary thinking on monetary policy, see Mishkin (2006).

[10] That problem is aggravated if the government's borrowing strategy is to finance its deficit exclusively in the domestic market. It gets worse if the government is obliged to borrow abroad in foreign currency rather than its own because it then takes on added currency risk and BoP liquidity risk. But if it can borrow abroad in its own currency the problem gets ameliorated by reducing interest rate pressures in the domestic market; as long as the expected real return is perceived by global investors in INR bonds to be superior to returns in UST bonds after adjusting for credit, country, political and currency risk.

up, gross flows across borders have risen sharply. They exceed 90% of GDP today and are expected to rise further.

As in other open economies, it will become increasingly difficult to control the INR exchange rate through interventions by the central bank; as has been done in the past in India by RBI. The larger the interventions by the central bank, the more the cost of a policy of managing the INR exchange rate. The main 'cost' of such a policy is the loss of monetary autonomy as predicted by the iron-law or 'impossible trinity' of open-economy macroeconomics (Joshi, 2003; Patnaik, 2005; Joshi and Sanyal, 2005). Too many central banks around the world have lost too large an amount of their reserves trying to defend pegged exchange rates when global markets moved against them. India should not repeat that error.[11]

In an environment of free capital flows, downward pressures on the INR would need to be relieved by raising interest rates if exchange rate stability was the prime goal. If that was done regardless of domestic conditions, an externally induced contraction in money supply could prove deleterious to domestic industry. It would raise its costs of capital and reduce the enhanced export competitiveness that a depreciating INR would have afforded. The opposite would occur if pressure on the INR were upward. Interest rate movements would be governed by fluctuations in capital flows instead of fluctuations in local inflation and government borrowing requirements.

A particularly difficult feature of the loss of monetary policy autonomy lies in the pro-cyclical nature of capital flows (Kaminsky *et al.*, 2004). In an ideal world, with a sophisticated financial system, capital flows should respond to investment opportunities in the real economy. In practice, information asymmetries can lead to pro-cyclical capital flows. When the business cycle in India is on the upswing, capital flows would tend to flood in. Conversely, when the business cycle reversed, capital might flow out. Pegging the exchange rate would lead to higher interest rates in India when business cycle conditions were adverse in order to counter weak or negative capital flows. That would exacerbate the downturn. A policy of pegging the exchange rate would thus enable the direction of capital flows to induce a destabilising monetary policy, one that increases the volatility of GDP growth instead of reducing it.

India, with its large and fast growing economy, can no longer peg the INR to the USD and incur the resultant loss of exercising monetary policy autonomy under changing domestic market conditions. An open capital account would require giving up a stable exchange rate and choosing autonomous monetary policy. But the public and private sectors would need to have the resilience and risk management capacity, with world class currency futures and options instruments and markets, to cope with more frequent movements in INR exchange rates.

The key element of such a monetary policy would need to be inflation targeting. When the USD is not the anchor for the INR, the CPI basket should take its place. Such a policy has been shown to have many long term benefits, including fiscal stability and low output volatility. Today central banks in the UK, Euro-zone, Japan, NZ, Australia, Israel, Chile, *etc.* all target inflation to keep it low. For all practical purposes, the Fed in the US targets inflation *de facto;* although it is constitutionally required also to be concerned about growth and employment.[12]

In a country like India, which needs to build global confidence in the INR, an explicit and legally mandated *de jure* inflation-target regime governing monetary policy would be superior to a *de facto* pegged exchange rate regime (as is presently[13] the case) or a *de facto* inflation targeting regime (as is the case in the US). When domestic and foreign investors hold INR assets – originating from any issuer – an

[11] For a treatment of the issues in moving to a floating exchange rate, see Duttagupta *et al.* (2004, 2006).

[12] Chandavarkar (2005); Mohanty and Klau (2004); Khatkhate (2005) discuss monetary policy in India.

[13] Patnaik (2003) demonstrates that in India's case, as with many other developing countries, there is a distinction between the *de facto* currency regime in operation as opposed to the *de jure* currency regime which is claimed to exist, and that India has followed a *de facto* INR/USD pegged exchange rate.

institutional commitment to predictable and low inflation generates predictability in the real value of bond repayments. The danger of capital flight would be reduced if the value of the INR was maintained in real terms and expectations about its future value were stable. A monetary policy that targeted inflation *de jure* would be an ideal partner to a policy of public borrowing by selling INR bonds in global markets.

The choice of inflation measure to be targeted from available measures of inflation using the Wholesale Price Index, the Consumer Price Index or a measure of core inflation is significant. Theoretically there may be case for using a measure of core inflation that excluded commodities like food and oil. But in terms of public perception and the credibility of the central bank, the consumer price index (CPI-Industrial Worker) might be a better measure to use. It is this measure to which wages and dearness allowances are linked and which people are familiar with.

Unlike measures such as core inflation, the public would not suspect fudging of the figures by the authorities to suit their purposes. **But, using the CPI for inflation targeting will require the government to cease subsidising key prices (*e.g.*, energy and fuel) and intervening in commodity markets through price measures. Such practices distort measures of inflation and disable a policy of inflation targeting from working as it should**. However, the frequency of measuring the indicator should be increased and the time lag with which it is produced decreased, alongside steady progress in improving measurement of the consumption basket of the typical industrial worker in India.

The pass-through effect of the INR exchange rate on inflation (from rising or falling import prices) could incentivise the central bank perversely to manipulate exchange rates and have greater control over the pass-through. Intervention through interest rates would influence the exchange rate. Its effects on monetary policy would be transparent. But if, instead of deploying interest rates, the central bank's intervention was through purchase/sale of forex (reserve) assets, coupled with sterilisation, then the effect would be non-transparent and should be avoided. The use of interest rates as the instrument, with the aim of policy being a targeted rate of inflation keeping the pass-through effect in mind, provides a more transparent framework for achieving the targeted inflation rate. But it also poses a greater risk for fiscal management when deficits and public debt stocks are larger than they should be.

Monetary transmission is considerably altered in a world with an efficient financial sector. When the BCD nexus works properly, arbitrage binds together all points on the yield curve. The decisions by the central bank on the short rate, coupled with the publicly stated monetary policy **rule**, induce changes in all interest rates and in exchange rates. This indirect strategy has proven highly effective in mature markets. In India, there is a feeling that moving away from direct control of all points on the yield curve would be risky if not dangerous. However, ceding direct control and relying on the BCD nexus to work instead is essential in having an effective monetary policy and acquiring global credibility with an open capital account. Monetary policy with an open capital account is *more* effective when there is a proper combination of sound markets with a properly functioning BCD nexus and a public, transparent, unambiguous monetary rule. In other words, a given impulse for expansion or contraction can be managed much better by making a smaller change to the short-end interest rate, when the yield curve is arbitrage free and economic agents know the correct monetary policy rule that is in operation.

6. Outlook for the current account deficit

A current account deficit averaging about 2.5%, with a fluctuation of $\pm 0.5\%$, is presently perceived to be sustainable for India. India has sometimes run a current account surplus. But that is not in India's interests at its stage of development. It implies a savings ratio higher than the investment ratio and results in an export of capital to the rest of the world. An

investment ratio higher than the savings ratio, with net capital inflow of 2–3% of GDP per year, would permit India to raise its investment rate and stabilise it at 33–35% of GDP in order to sustain growth of 8% or more.[14]

However, even with these levels of net capital flow, an IFC in India will result in outflows and inflows that are much greater. The benefits of an IFC do not come as much from more 'net' investment as from gross capital flows in and out of the country. The benefits of capital flows come from more efficient international allocation of capital, capital deepening and international risk-sharing. All these factors raise GDP growth and reduce consumption volatility. But recent research shows that while such direct benefits do accrue, the potential collateral benefits are even larger. These arise from better financial market development, better governance and the macroeconomic discipline that comes with financial globalisation (Kose *et al.*, 2006; Mishkin, 2005). The resulting growth in capital productivity and efficiency, spread over a much larger volume of investment, can have a greater impact than a mere increase in the investment level.

7. Macro-stability for an IFC

For a credible IFC to be established in Mumbai, global financial markets need to be persuaded about the enshrined sanctity of maintaining macroeconomic stability in India regardless of which government rules. This involves institutional reforms on three fronts: fiscal, monetary and financial system. So far, India has made more progress on fiscal reforms. The other two elements have stayed about where they were in the early 1990s. Further, deeper reforms are now required in fiscal and monetary economics, in order to ensure:

* Low risk of changes in tax policy or tax rates;
* Zero probability of more capital controls being introduced in the future;
* Low and stable inflation; zero probability of hyper-inflation;
* A respected and tradable arbitrage-free INR yield curve going out to 30 years;
* Lower fiscal deficits to bring about a stable or declining debt/GDP ratio;
* A high investment grade sovereign credit rating;
* Monetary policy that stabilises the business cycle;
* A 'consistent' framework of monetary policy that recognises the impossible trinity;
* Business cycle volatility that is more like an industrial country and less like a developing country.

In the case of the UK, an embarrassing history of macroeconomic instability through most of the 20th century – including an IMF program in 1978 and a breakdown of the currency regime in 1992 – was resolved by the reforms of the late 1980s and 1990s. These required the central bank to focus exclusively on monetary policy and nothing else, created an explicit inflation targeting regime, and introduced fiscal rules which eliminate the risk of a growing debt/GDP ratio.

India and the UK both experienced difficulties with their currency regimes in the early 1990s. But the UK came up with a more far-reaching response involving institutional surgery and new legislation. The resulting macroeconomic stability, and an enlightened approach to financial regulation that is principles-based, have been key factors in bolstering the success of London as a GFC over the last decade.

The US has travelled in the opposite direction since 2000. A loss of hard-earned fiscal control, and the imposition of counterproductive regulation, and legislation such as Sarbox, has damaged New York's standing as a GFC. London's experience and that of New York are instructive for India in opposite ways. In the UK, only a few years after the

[14]The well known results of Feldstein and Horioka (1980) suggest that in the OECD, convertibility was not very effective at decoupling domestic savings from domestic investment. These results have been significantly modified by post-1980 data. However, the basic position of HPEC is consistent with the idea that convertibility accelerates GDP growth through mechanisms other than a large increase in the sustainable current account deficit.

breakdown of its currency regime, the reforms implemented have becalmed the expectations of financial markets. They have restored global confidence in the UK despite a tendency toward fiscal profligacy becoming increasingly apparent in recent years. In the US, by contrast, global credibility and confidence in financial probity has been steadily eroded since the new millennium dawned.

A mature market economy is one where inflation and GDP growth are stable, while exchange rates are more variable. In the third world, this is reversed. Emphasis on a stable exchange rate results in more volatile inflation and more volatile GDP growth. India has to put monetary policy on a sound footing to avoid this pathology.

8. The incompatibility of capital controls in a 21st century IFC

In some ways it might appear to be theoretically feasible for India to make some progress towards internationalisation of finance while retaining an elaborate structure of capital controls. For example, an institutional mechanism for the issuance of *Indian Depository Receipts* (IDRs) could be created: a narrow opening in a system of controls through which one kind of transaction can be conducted. Or attempts could be made to find a way of providing IFS through that part of the system where the capital account is open; while having to persuade regulators at every step that what is being done is in line with what is permissible on a 'moving-target' basis. But the efficacy of this obviously sub-optimal approach is questionable for two reasons:

* A successful IFC comprises a vibrant, competitive financial market ecosystem. If financial firms have to operate under a complex maze of ambiguous restrictions, and have to comply with quantitative restrictions or license/permit requirements that achieve very little, then the quality of thinking in, and the services provided by, the IFC are compromised. More time is spent by financial firms and their key executives on exploring loopholes than on designing the right kind of IFS for clients.

  If the CEOs of financial firms are forced to focus on the policy and regulatory constraints faced by their business plans – rather than on implementing their business plans and continually refining them by talking to customers – then what is replicated is a situation like the India of the 1980s in the real economy. In those circumstances the most capable Indian manufacturing firms were unable to achieve international competitiveness because they spent more time dealing with the government than with their customers in export markets. But when that constraint was removed their success went beyond the imaginable.

  As an example, despite many years of policy effort, Indian Depository Receipts have a zero market share in the market for international equity issuance and the OBU licenses granted earlier were not worth the paper they were printed on. Even a broad opening of capital controls but with quantitative restrictions on different types of transactions involves financial firms being engaged in heavy-duty persuasion in the interpretation of onerous rules. The complexity of such an institutional mechanism runs afoul of the need for speed, flexibility and innovation in the global IFS market. It encourages rent-seeking (Krueger, 1974).

* Piecemeal opening-up defeats the purpose of capital controls. Capital is more agile and mobile than merchandise. When India embarked on autarky on the trade account, some items – like gold or VCRs – came into India in boats from Dubai. In the case of most things – like steel – the Indian attempt at autarky was successful but self-harming. Warding off free flows of capital is more difficult than monitoring imports/exports of steel or cement (Patnaik and Vasudevan, 2000). Under draconian capital and current account controls, the *hawala* market flourished. It effectively bypassed those controls. As has been noted, the presence of harsh capital controls did not prevent the 1991 currency crisis (Vir-

mani, 2001; Acharya, 2002). Conversely, a more open capital account in 1997–98 did not trigger a crisis when many East Asian countries experienced disaster. What India has achieved, in opening its capital account, implies more convertibility than is commonly appreciated. Every month, the 'calibrated opening of the capital account' further undermines residual capital controls. Maintaining partial controls, and removing remaining obstacles over a long drawn out period of time, contingent on concomitant conditions being met, impedes incoming cross-border capital flows in a counterproductive manner. What it achieves is to inhibit the export of IFS from India – while having a *de facto* open capital account for the real economy, but not for financial services. That creates a strong bias against exporting IFS; an activity in which India has a much greater competitive advantage over most other countries – providing the BCD nexus can be created quickly in Mumbai – than in almost any other domain.

At the same time it has to be recognised that there has been much argument in international financial circles about the advisability of removing all capital controls when faced with the risk of coping with capital surges (especially of short term hot money) induced by the herd instincts of bankers and high-risk fund managers. These arguments gathered steam after the Asian debt crisis of 1997–99 and a number of subsequent crises that occurred around the developing world since. Clearly no member of the HPEC would like to see India open its capital account fully only to be confronted by a financial crisis because capital surges could not be controlled.

But, in weighing the balance of risks, what is obscured is what India is losing by keeping the capital account partially closed, and applying the CAC regime in a manner that effectively closes it even more than the rules permit. That loss has been discussed at length throughout this report. Remaining capital controls – even partial ones – pose a high *practical* (rather than theoretical) barrier to permitting India to compete in the global market for IFS. By doing so, they deprive Indian financial firms of an opportunity to earn larger export revenues than those derived from IT services. They reinforce protectionism and barriers to competitive entry in the Indian financial system rendering it less efficient and more costly as an intermediation mechanism than it should be. They do not permit financial system liberalisation and reform to take place as swiftly and to the extent that it should.

On the whole, the HPEC is of the view that the capital account should be opened at a faster rate than is currently being envisaged. It believes that the risks of doing so can be managed given: (a) the proven skills and capabilities of the RBI in managing India's external accounts with extraordinary competence; (b) the trends that are now manifest in accelerating two-way financial flows at a very rapid rate – *i.e.*, at two or three times the output growth rate; and (c) the problems that will increase as the partially closed regime is maintained,

Opening the capital account decisively is not a matter of tweaking technical ratios and tinkering with the present limits of what is allowable and what is not. That process adds little of value. But it increases levels of frustration throughout the Indian financial system, and on the part of Indian non-financial firms that are ready and able to showcase their world-class competitive abilities more meaningfully on the global stage. Neither of these categories of firms is enthusiastic going through the hoops of a capital account regime that is supposedly 'open' for them in theory but still involves considerable administrative obstruction in practice. Clearly the focus of the RBI would then need to shift rapidly to managing monetary policy in an open economy, with an open capital account, in a way that supports the growth and globalisation of the real economy, while maximising the prospects for the success of an IFC in Mumbai.

Simply put, in the Committee's view, India can have an IFC in Mumbai with an open capital account or it can keep its capital account partially closed, in the way it is now, and forego/delay the option of creating an IFC until conditions are deemed right to open the capital account

fully. What it cannot have is a credible IFC in Mumbai with a capital account that remains partially closed. To create an IFC in Mumbai under such circumstances would be putting the cart before the horse. It would lead to failure of the IFC and compromise its prospects for many years to come. The experience would be similar to the desultory experience with the OBU experiment. This is a stark choice that Indian policymakers face. They must decide which way to go. The Committee is an advisory one and has no mandate to make that choice. But it would be remiss in discharging its advisory mandate if it did not add that delaying the creation of an IFC in Mumbai has real costs (in terms of foregone opportunities and revenues as well as payments for IFS that must be acquired from abroad) that should not be obscured.

As long as residual capital controls are in place, all India will get is more BPO/KPO in finance and perhaps be able to offer a very limited range of IFS such as algorithmic trading with DMA; but there will be no IFC. At the same time, the establishment of an IFC, and the associated onset of full capital account convertibility (CAC), has implications for the evolution of macroeconomic policy. In some profound ways, having an IFC in Mumbai provides an *answer* to some of the more daunting questions about how fiscal policy and monetary policy will work in an environment without capital controls. From the viewpoint of managing macro-policy, it makes more sense to have full convertibility and creating an IFC, instead of trying to achieve convertibility without attempting to create an IFC.

9. Full capital convertibility and an IFC in Mumbai

Export-orientation in the Indian real economy required the removal of trade barriers. In similar fashion, successful export of IFS via an IFC in Mumbai requires the removal of capital controls. At the same time, the reasoning presented in this chapter suggests that creating an IFC has many synergies with moving more rapidly towards convertibility. Each complements and strengthens the other.

9.1. Impact on the conduct of fiscal policy and debt financing

The first task of Indian public finance is to reduce the gross fiscal deficit in order to reduce and stabilise the debt/GDP ratio at a lower level (50–65%) than it is now (80%). Once this is achieved, the task of public debt management is to finance extant debt as cheaply as possible. As has been argued in this chapter, an IFC in Mumbai would attract an array of global institutional investors and issuers into the INR yield curve. A properly functioning BCD nexus – pivoting on a more liquid and efficient bond market – with well-traded, arbitrage-free and liquid INR yield curve would provide the best foundation possible for bond issuance by the GOI. Growth of Indian institutional investors along with an existing universe of global investors anxious to buy INR denominated paper would generate natural customers for Indian government bonds tradable in global markets. Once the INR is accepted in the portfolios of global fixed income investors, the size of bond investments available to the Government will greatly exceed the amounts placed through financial repression today.

9.2. Impact on the conduct of monetary policy

An IFC in Mumbai would strengthen the information set on which monetary policy is decided and increase its efficacy. Around the world, monetary authorities make extensive use of *information* from global financial markets in the formulation of monetary policy. This information includes implicit and explicit market estimates of expected inflation, currency volatility, interest rate volatility, *etc.* Such vital raw data for the sound conduct of monetary policy is, at present, absent in India owing to the stifling of financial markets. An IFC would enable and empower such markets, and thus feed better information back into the formulation of monetary policy.[15]

[15] For related arguments, see `http://tinyurl.com/yapulp` on the web, and Bodie and Merton (1995).

The second impact of an IFC on monetary policy concerns efficacy. Central banks in mature market economies set only the short-term interest rate and articulate clear rules about how they will react in the future to new domestic and global developments and data on prices. Once this is done, market arbitrage translates adjustments in the short-term rate into changes in long-term interest rates and prices on the corporate bond market across the maturity/duration spectrum. The efficacy of monetary policy comes about through this plethora of changes, which flow through arbitrage in the fixed income market. In India, since the fixed income market has neither liquidity nor arbitrage, this channel for the exercise of effective monetary policy is made defunct. An IFC in Mumbai of the kind the HPEC envisages would result in the creation of a liquid and arbitrage-free INR yield curve and a corporate bond market.

India is headed towards convertibility sooner or later. That is partly due to the vision and foresight of policy makers but, more importantly, to increasing globalisation and the consequent ease with which capital controls can be evaded. In practice, when a country has an open current account, and when local firms build operations all over the world and become multinationals, capital controls lose efficacy. They simply become discriminatory rather than useful. They discriminate against firms that do not trade or invest abroad while favouring those that do.

Many countries – *e.g.*, all the small countries of Europe – have local financial systems that are not globally significant while having an open capital account. But there are powerful synergies between having a world-class financial system in a large, globally significant economy and having an open capital account. An IFC in Mumbai dovetails with an open capital account in India. On the one hand, an IFC will not take root without the removal of capital controls. But equally, the establishment of an IFC, and an accompanying program of financial sector reforms, provides the ideal supporting infrastructure for dismantling capital controls and coping with the consequences more smoothly. Worldwide experience with opening the capital account emphasises the importance of having strong financial markets and institutions to cope with the consequences of that transition. The creation of an IFC in Mumbai is an integral and indispensable element in making that transition.