Report of the High Powered Expert Committee on
Making Mumbai an International Financial Centre

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Ministry of Finance
Government of India
New Delhi
2007

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सत्यमेव जयते

The High Powered Expert Committee (HPEC) on

Making Mumbai an International Financial Centre

The Hon. P. Chidambaram
Minister of Finance, Ministry of Finance
Government of India, North Block
New Delhi 110001

10th February 2007

Dear Honourable Minister:

We submit herewith the HPEC's Report on *Making Mumbai an International Financial Centre*. Our choice of the term 'International' instead of 'Regional' has been explained in our report.

Yours sincerely,

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Executive Summary

1. International Financial Services (IFS) and Centres (IFCs) in Perspective

Historically, finance has always been 'international' in character; capital has rarely been immobile. Money has moved freely across borders for all of civilisation with gold and silver (in various weights and measures) being global currencies for millennia. But, the freedom of capital was dramatically curtailed during the 'Bretton Woods' regime, created in 1945, when capital controls were imposed on war-ravaged, capital-starved economies. With post-war recovery, that regime broke down in 1971. World finance has since been reverting to its natural state with the removal of capital controls and the gradual re-integration of national capital and banking markets; but this time on a *global* scale.

OECD countries opened their capital accounts between 1974 and 1990. A number of emerging markets did so in the 1990s – often at the IMF's urging. In 1996, the IMF contemplated making an open capital account a condition of membership. But the idea was shelved when the Asian financial crisis erupted in 1997. That was precisely when India first contemplated re-opening its capital account. A series of similar mini-crises occurred elsewhere in 1998 engulfing Russia and Latin America. By 2002 all these crises were contained. Capital account opening resumed but with reduced momentum as the IMF and others began to reconsider its benefits and costs. The question of capital account convertibility now weighs heavily on China and India, where financial systems with structural weaknesses, legacy constraints and varying degrees of State domination now confront the irresistible forces of globalisation.

Even with an open capital account, some financial services (e.g. deposit banking) remain local and non-tradable. But most financial services are now tradable across borders: i.e. they are ***international financial services*** (IFS). A cross-border market for IFS has existed over millennia. But it has been transformed in the 19th and 20th centuries and grown quite differently and more dramatically since 1980. It has also become extremely competitive, with buyers and sellers around the world now having a choice of procuring IFS from competing ***international financial centres*** (IFCs).

A concrete example of procuring IFS from an IFC would be the raising of debt. If Mumbai became an IFC, a South African railway project could issue a bond there in the primary market. It would wish to do so because of Mumbai's sophisticated securities markets, along with a number of asset managers in Mumbai running global portfolios. If the INR bond market was developed, the South African bond issue could be INR denominated. Global investors would buy these bonds and trade them on the secondary market in Mumbai. Each of these three steps – primary market bond issuance by the South African entity, primary bond purchases by global and Indian investors, and secondary bond market trading by global players – would generate revenues from the export of financial services from Mumbai. Creating an IFC in India requires that Mumbai must be viewed as competitive in the eyes of the South African railway and in the eyes of global bond investors, when compared with alternatives like Singapore or London.

The global IFS market in the 21st century is one in which competition is driven by rapid innovation in financial products, services, instruments, structures, and arrangements to accommodate and manage myriad requirements, risks, and a ceaseless quest for cost reduction. Competitive advantage in IFS provision depends on seven key factors:

1. An extensive national, regional, global network of corporate and government (supranational, sovereign, sub-sovereign

and local) client connections possessed by financial firms participating in an international financial centre (IFC).

2. High level human capital specialised in finance, particularly quantitative finance, supported by a numerate labour force providing lower level paraprofessional accounting, book-keeping, compliance and other skills.
3. World-class telecommunications infrastructure with connectivity around the clock, and around the world.
4. State-of-the-art IT systems, capability to help develop, maintain and manage the highly sophisticated and expensive IT infrastructure of global financial firms, trading platforms and regulators; systems that are evolving continuously to help firms retain their competitive edge.
5. A well-developed, sophisticated, ***open*** financial system characterised by: (i) a complete array of proficient, liquid markets in all segments, i.e. equities, bonds, commodities, currencies and derivatives; (ii) extensive participation by financial firms from around the world, (iii) full integration of market segments, i.e. an absence of artificially compartmentalised, isolated financial markets that are barred from having operational linkages with one another; and (iv) absence of protectionist barriers and discriminatory policies favouring domestic over foreign financial firms in providing financial services.
6. A system of financial regime governance (i.e. embracing legislation, policies, rules, regulations, regulatory agencies etc.) that is amenable to operating on global 'best-practice' lines and standards; and finally
7. A 'hinterland advantage' in terms of either a national or regional economy (preferably both) whose growth is generating rapid growth in demand for IFS.

Advances in information and communications technologies (ICT) have eased interactions over a distance and reduced their cost dramatically. However, activities involving complex judgment and intellectualisation continue to be clustered at a few physical locations, where key individuals meet face-to-face. This is characteristic of R&D in computer technology – clustered in Silicon Valley and the Cambridge Corridor – despite extensive use of email, voice telephony and video conferencing. India has achieved a minor miracle with the explosion of export revenues from IT services; yet, these revenues are a fraction of Silicon Valley's. Similarly, routine production of financial services takes place everywhere. But, the most important and high value decision-making functions are concentrated in a handful of IFCs that have effectively (and consequently) become *global cities*[1]

At present, London, New York and Singapore are the only ***global*** *financial centres* (GFCs). Many emerging IFCs around the world are aspiring to play a global role in the years to come: e.g. Shanghai and Dubai. Other IFCs in Europe and Asia, like Paris, Frankfurt or Tokyo, connect their financial systems to the world. But they have lost market share and importance in competing for *global* IFS for reasons explained in the report. The world market for IFS is represented mainly by the EU, US and Asia which together account for over 80% of global GDP. Correspondingly the global IFS market is concentrated in the three GFCs located in each of these regions.

2. Implications for India and Mumbai

Given that an IFC in Mumbai must be rooted in (and serve) India's financial system, rather than be an artificial offshore appendix, the call for creating an IFC in Mumbai at this time is implicitly a metaphor for (and synonymous with) deregulating, liberalizing and globalising, all parts of the Indian financial system at a much faster rate than is presently the case. Raising the issue of an IFC in Mumbai now suggests that the pressing need for a new, more intensive phase of deregulation and liberalization of the financial system has been anticipated by India's policy-makers and regulators

[1]To understand what such a city is see Sassen (2001).

and that the IFC is a device to accelerate movement in that direction. An IFC will not be created quickly in Mumbai, nor will it succeed, if action on further deregulation and liberalisation is not taken in real time.

In sustaining its trajectory as an emerging, globally significant, continental economy, the HPEC believes that India has no choice but to: (a) become a producer and exporter of IFS; and (b) capture an increasing share of the rapidly growing global IFS market. To achieve these two goals, its financial centre in Mumbai **must** compete to become a successful IFC. Incremental growth in the global IFS market is now being driven by the growing demands of China, India and ASEAN. With its strengths in human capital, a globally powerful IT services industry, and its own hinterland, India has many natural advantages for competing successfully in this market. In evolving as an IFC, Mumbai will probably grow in two distinct phases:

1. In the *first* phase (2007–2012) Mumbai must connect India's financial system with the world's financial markets through IFS. That is what IFCs like Frankfurt, Paris, Sydney, Tokyo and a host of smaller IFCs do now in respect of their national economies.
2. In its *second* phase (2012–2020) Mumbai must develop the capacity to compete with the three established GFCs for *global* IFS business that goes beyond meeting India's needs. After 2020, HPEC would hope that Mumbai would hold its own in competing with the other GFCs and acquire increasing global market share.

India's financial services industry will not become export-orientated, nor derive significant IFS export-revenues, if Mumbai fails to become an IFC. That will compromise not just export earnings from IFS, but the quality, efficiency and range of domestic financial services offered in India as well. For Mumbai to become an IFC, India's policy-makers and financial operators need to understand fully the nature of and opportunities in: the global IFS market; the activities undertaken in GFCs; and the gap in capabilities that now exists between Mumbai and established GFCs.

3. The difference between BPO and IFS

The production of financial services worldwide is now fragmented into a series of interrelated sub-processes undertaken separately. Business process outsourcing (BPO) of individual processes occurs at a considerable distance from the point of customer contact where their eventual resynthesis occurs. India is now a highly successful BPO venue for the global financial services industry. In the last five years, it has gone beyond simple BPO towards complex *knowledge process outsourcing* or KPO. This is a positive development for India to realise its ambitions of creating an IFC in Mumbai. Finance-related BPO/KPO builds up skills in India and increases the 'mind-share' of India amongst global finance professionals.

However, there is a substantial difference between BPO/KPO and providing IFS via an IFC. Financial processes that get outsourced under BPO involve low-value, low-skill tasks. They are codified in a manual that indicates how tasks are to be performed, controls quality/integrity, and measures whether they are being done correctly. Once the protocols are in place, the task is performed repetitively. But some outsourced activities in finance, involving research and analysis, are moving up the KPO value chain. For example, company financial analysis, credit research, and stock market research functions are now also being outsourced.

Still, the real value in financial services provision remains concentrated in a small number of jobs performed by qualified, super-numerate, imaginative people with the specialised expertise, experience, domain knowledge and skill-sets to be innovative in designing financial instruments and structures. Such people have extensive cross-border networks of clients and colleagues. Their work involves fine judgment in making decisions covering a vast array of circumstances. It cannot be scripted in a manual codifying its mechanics. Such judgments rely on intensive interaction, inter-personal information flows, and

complex negotiations among a number of highly qualified professionals including financial experts, specialised corporate lawyers, accountants, tax experts, etc. Such interaction takes place at an IFC.

From an Indian perspective, further progress with expanding the BPO/KPO chain in financial services (horizontally and vertically) is inevitable and positive. But that should not be confused with what is required to provide the full array of IFS via an IFC. Intuitively, moving up from BPO/KPO to a fully fledged IFC is analogous to moving up from low-end programming to replicating Silicon Valley. Incremental progress in the Indian IT industry will not bring Silicon Valley to India; that requires a quantum leap. Similarly, doing more BPO/KPO for the global financial services industry will not, as a matter of course, result in India automatically graduating to providing IFS through natural evolution. BPO/KPO will be done by specialised sub-contractors with different skill sets and competencies. IFS can only be provided by qualified and internationally known ***financial*** firms; which is what Indian financial firms must quickly strive to become. India's growth in BPO/KPO is about doing more through IT services firms (like Infosys, Satyam, Wipro or TCS). India's growth in IFS is about exporting IFS through established and new financial intermediaries.

4. What are International Financial Centres (IFCs) and Services (IFS)?

Financial centres that cater to customers outside their own jurisdiction are referred to as *international* (IFCs) or *regional* (RFCs) or *offshore* (OFCs). These three different adjectives are often (but wrongly) used synonymously in the literature. Yet these three types of IFCs are difficult to define in a clear-cut, mutually exclusive fashion; although they are quite distinct. All these centres are '*international*' in the sense that they deal with the flow of finance and financial products/services across borders. But that description does not differentiate them sufficiently in terms of their scope.

We categorise IFCs in this report in four ways; i.e. as:

Global (GFCs) These are centres that genuinely serve clients from all over the world in the provision of the widest possible array of IFS;

Regional (RFCs) They serve their regional rather than their national economies (see below) – examples of such RFCs would be Dubai or Hong Kong[2];

Non-global and non-regional, ordinary international IFCs These are centres like Paris, Frankfurt, Tokyo and Sydney that provide a wide range of IFS but cater mainly to the needs of their national economies rather than their regions or the world – one might be tempted to call them *national* IFCs although that term is an awkward one because its two defining adjectives are contradictory; and

Offshore (OFCs) These are centres that are primarily tax havens for wealth management and global tax management rather than providing the fully array of IFS.

The IFS products and services that IFCs provide include the following eleven activities. GFCs provide all of them. Other IFCs provide some combination of them.

a. **Fund Raising:** for individuals, corporations and governments (sovereign and sub-sovereign). This includes debt and quasi-debt across maturity/currency

[2]Singapore and London are also regional in the sense that they serve Asean and the EU while New York serves North and Latin America. But because these three centres serve the global economy, well beyond meeting the IFS needs of their respective regions, we classify them as *global* rather than regional. In that sense, the HPEC sees limited potential for Mumbai to be a *regional* financial centre for South Asia given current geopolitical realities. South Asia is more likely to be served by Singapore and Dubai for the time being. We see Mumbai being an IFC that serves India in the first stage and leapfrogs to serving the global economy in its next stage of evolution. Ironically, Mumbai as an IFC is likely to serve its region *after* it serves the world, rather than before. For that reason, although the HPEC was asked to look into Mumbai becoming a *regional* financial centre we dispensed with that characterisation early on in the knowledge that it would be misleading. Throughout this report therefore we refer to Mumbai becoming an *international* rather than a *regional* FC.

spectra; equity and quasi-equity for private, public and public-private corporations; as well as risk-management appendices attached to primary fund-raising transactions to ensure that the risk exposure of the primary borrower or fund-raising entity (to currency, interest rate, credit, market, operational and political risks) does not exceed tolerable limits.

b. **Asset Management and Global Portfolio Diversification:** undertaken by a variety of national, regional and global asset managers including, *inter alia* pension funds, insurance companies, investment and mutual funds of various types characterised by nature of instrument (i.e. debt, equity or convertibles), geography, or sector of activity.

c. **Personal Wealth Management (PWM):** for high-net worth individuals (HNWIs). This activity is estimated to involve the management of personal assets of $8–10 trillion worldwide. Overseas Indians are estimated to hold *financial* wealth (i.e. apart from real estate, gold, art, etc.) of over $500 billion and total wealth of over $1 trillion. PWM takes place in established IFCs, but is more skewed towards specialised PWM-IFCs in the Channel Islands, Switzerland, Luxembourg, Monaco and Lichtenstein for the EU and Africa; Caribbean offshore centres for the US and Latin America; Bahrain and Dubai for the Middle East; Singapore, Hong Kong and some Pacific Island offshore centres for East/North Asia.

d. **Global Transfer Pricing:** This is an activity that GOI, like most governments, looks askance at, but needs to realise and accept the reality of, in a global economy dominated by transnational corporations. This will become increasingly important to Indian firms as they evolve into multinationals.

e. **Global Tax Management and Cross-border Tax Liability Optimisation:** which provides a business opportunity for financial intermediaries as well as accountants and law firms until national tax regimes begin to converge toward a global low tax norm. This activity will become increasingly important to Indian firms as they evolve into MNCs.

f. **Global/Regional Corporate Treasury Management Operations:** involves fund raising, liquidity investment and management, asset-liability and duration matching, and risk-management through insurance and traded derivative products for currency, interest-rate, credit and political risk exposure.

g. **Global/Regional Risk Management Operations and Insurance/Re-insurance:** which involves highly developed exchange traded and tailored derivatives (futures, options, swaps, swaptions, caps and collars) as well as world class derivatives exchanges that trade a variety of global contracts.

h. **Global/Regional Exchange Trading of Financial Securities, Commodities and Derivatives Contracts in Financial Instruments/Indices and in Commodities:** There is an increasing tendency toward multiple listings of financial securities (equities and debt), and of derivative and commodity contracts, on different exchanges with emerging investor demand for 24 x 7 x 365 trading of all listed securities across all exchanges. Demand is highest for the securities of index-corporations in each major capital market. It will gradually cascade downwards to cover global trading of all listed securities in all markets – developed and emerging. Mumbai is better placed than most IFCs to meet this demand, because of its human capital and IT capability, as well as its world-class exchanges and improving exchange regulation.

i. **Financial Engineering and Architecture for Large Complex Projects:** This primarily involves energy and infrastructure projects requiring funds from a variety of global sources (public and private) with attached risk-management. Again, Indian financial institutions and former FIs have well-honed skills in this particular arena.

j. **Global/Regional Mergers and Acquisitions Activity:** This will become increasingly important in India and for which a considerable amount of back-office

BPO/KPO and due diligence research work is already being outsourced to India.

k. **Financing for Global/Regional Public-Private Partnerships:** This relatively new activity has emerged on scene with considerable force since the development of the London Underground PPP. It has particular and immediate relevance for the financing and rapid development of Indian infrastructure without recourse to the treasury.

5. Growth and globalisation drive India's demand for IFS

Since 1991, India has grown rapidly and its economy has globalised. As India grows, it globalises faster. That happens through the increased share of trade and foreign investment in economic activity. Evidence of that lies in two-way cross-border flows. Such flows, on the current and capital accounts combined, rose from $105 billion in 1992 (<32% of GDP) to $658 billion in 2005 (>90% of GDP). The forces that resulted in this six-fold increase are intensifying and will further accelerate growth of cross-border flows. The next decade is likely to see cross-border flows growing as fast.

Current and capital account flows invariably necessitate purchases of IFS. For example, current account transactions involve payment services, credit enhancement, currency risk management, etc. Capital account flows involve purchase of investment banking, legal, accounting, risk management, research and other similar services. When FDI/FPI enters or exits India, fees are paid to various IFS providers (e.g. commercial and investment banks, securities brokerages, exchanges, insurance companies, asset managers, etc.). As India engages more with the world, the *stock* of assets held in India by foreigners rises. Similarly, the *stock* of foreign assets held by Indian households and firms also rises. Purchases of risk management services grow in proportion to these *stocks* which are far larger than the capital flows of any one year.

It is estimated that Indian households have accumulated considerable wealth outside the country; well beyond the present limits set by RBI. The ability of Indian households to move resources across the border has increased with India's increasing openness. The proliferation of Indian MNCs operating around the world – and transfer pricing with their subsidiaries abroad – has led to IFS demand for fund-raising, corporate treasury management and global tax management. With rapidly increasing annual flows, the stock of assets outside the country controlled by Indian households and firms is rising rapidly. These assets require IFS for wealth, asset and global tax management. All these phenomena imply inevitable increases in IFS purchases associated with the growing size of cross-border flows. Calculations in this report suggest that on average, the IFS revenue stream works out to 2% of the gross flows across the boundary.

This translates to about $13 billion of IFS purchases by Indian clients in 2005.

Looking ahead, India's engagement with the world will intensify in three ways: (a) reduction in barriers such as customs duties and capital controls; (b) improvements in infrastructure; and (c) greater participation by MNCs (Indian and foreign) in the Indian economy. These developments will induce deeper globalisation of the Indian economy in the coming decade, inducing an upsurge of IFS purchases.

Our estimates suggest that IFS purchases by Indian households and firms will rise to $48 billion by 2015 on the basis of conservative assumptions in a 'base-case' scenario. Under more propitious circumstances (e.g. if GDP growth is sustained at 9%) that figure could be over US$70 billion. By 2025 that amount could exceed US$120 billion in nominal terms.

These estimates warrant a different way of thinking about IFS exports and about an IFC in Mumbai. Traditional conceptualising by Indian exporters about market opportunities typically assumes tapping into a quasi-infinite world market.[3] Financial ser-

[3] This was the approach taken by the Indian software industry which now has domestic sales of a mere $500 million while its exports are a 30-fold multiple of roughly $15 billion a year. The search for growth on the part of firms like TCS, Infosys or Wipro has been primarily about finding international customers. The

vices are like software services in that they are labour, skill, IT/communications intensive. But, in terms of market opportunity, there is a fundamental difference between finance and software. It lies in India's hinterland advantage. Rapid growth, even more rapid integration with the rest of the world, and the high consequent growth rate of two-way cross-border financial flows now being seen, all serve to make India a large and growing customer for IFS. Unlike IT service exports, India provides a platform for nurturing IFS capabilities that can 'go global' instantly.

Against that growing demand for IFS, a failure to respond on the supply-side, (i.e. by creating a successful IFC in Mumbai) will simply oblige Indian customers to do increasing IFS business abroad. That will fuel the growth of Singapore, Dubai, London and other IFCs while depriving Mumbai of capturing opportunities for high value-added IFS exports. For example, the Tata Steel-Corus deal generated IFS revenues in Singapore and London. Some elements of such transactions do not appear in Indian BOP accounts. Financial firms and policy makers in the three GFCs and DIFC are highly attuned to the opportunities for selling IFS into India. They have embarked on strategies that exploit the current infirmities of the Indian financial system. The most capable Indian financial firms are likely to move to these centres in order to acquire the flexibility to provide their extant client base with the IFS they need, rather than risk losing their clients to global financial firms.

Rapidly growing demand for IFS in India provides an opportunity for its financial services industry that its software industry never had. Indian software exports were generated by ingenious Indian human capital exploiting foreign markets and requiring nothing from the State other than telecom reforms. Indian IT genius conquered world markets between 1996 and 2006 in a way that was not imagined in even the most optimistic forecasts of 1996. In the case of IFS, an identical opportunity exists for Indian financial genius to achieve similar export success in world markets; but with one key difference. India's own growth and globalisation, and consequent domestic demand for IFS, generates natural opportunities for IFS producers in India (local and foreign) to acquire IFS skills and exploit economies of scale. Indian software exports required an enabling framework from the State in the form of telecom reforms. Indian IFS exports will require a similar enabling framework from the State. Deeper and wider reforms and improvements are needed in: (a) India's financial system and the way it is governed and regulated; as well as (b) Mumbai's urban infrastructure and political/administrative governance on a scale not yet envisaged.

6. India's competitive advantages in creating an IFC

Hinterland Advantage: As argued above the growth of the Indian economy and more rapid growth of cross-border financial flows have created substantial local demand for IFS. This 'driver' supports the development of skills, and generates economies of scale on the part of financial firms operating in Mumbai. China has the same hinterland advantage. New York has the North American economy as its hinterland. London has the even larger EU economy, as well as its own national economy, to serve. Singapore has a limited national economy. But it is the financial epicentre of an ASEAN regional economy that is almost as large as China and larger than India. Dubai does not have that kind of national or regional economy. But it is located in a region that is generating enormous financial surpluses for investment abroad.

Human Capital: India has four strengths by way of human capital endowments that give it a competitive edge over Shanghai, Singapore and Dubai:

- The extensive use of English, which is the *lingua franca* of international finance

domestic market does not loom large to the CEOs of these firms, and played no role in their graduating into export-oriented MNCs.

- Generations of experience with entrepreneurship, speculation, trading in securities and derivatives, risk taking, and accounting. Indeed the ability to provide IFS seems to be genetically coded into Indian finance professionals
- Strong skills in information technology and quantitative thinking
- Individuals of Indian origin play a prominent role in the top 20 global financial firms. They are well-positioned to intermediate between the business strategies of these vital firms and the genuine strengths and weaknesses of India as an IFC.

Location: Mumbai is well located in being able to interact with all of Asia and Europe through the trading day. Apart from the Americas, transactions with most of world GDP can occur in daylight. Given the remarkable and growing role of London in providing global IFS today, India has the advantage of having a 4–5 hour overlap with London time. There is no IFC operating within an hour's variation of the Indian Standard Time zone. India has an edge over Shanghai, but not over Dubai, in this respect.

Democracy and Rule-of-Law: Properly functioning financial markets require a constitutional basis and machinery for system governance that is stable, reliable, resilient and flexible; i.e. one that reduces future political risks and uncertainty. Globally credible financial systems need to be rooted in legislative, judicial, and regulatory frameworks that adhere to rule-of-law and respect/protect property rights; in principle and in practice. IFS can be provided credibly only from environments that permit open and honest expression of independent views by portfolio managers, analysts, commentators, researchers, etc. even when such views contradict those of governments and powerful personalities with a vested interest. India has proven strengths in upholding liberal values, protecting property rights and maintaining political stability. It fares well compared with China, Singapore or Dubai but does not match London or New York.

Mindshare: High GDP growth, the BPO/KPO phenomenon, and the success of Indians in global finance all over the world, ensure that India has significant 'mindshare' at policy-making levels in global financial firms. India has an edge over Singapore and Dubai, and perhaps even over China, in this respect.

Strong securities markets and advanced trading platforms: India has the foundations for providing global IFS by virtue of its dynamic, technologically capable securities trading platforms in the NSE and BSE. These are the 3rd and 5th biggest exchanges in the world measured by number of transactions. India has an edge over China and Dubai, but not over Singapore, in this respect.

Taking these formidable advantages into account, the initial conditions supporting India's entry into the global market for IFS are promising; especially when compared with the early days of software exports from India. In the latter case, there was no hinterland advantage, location did not matter, democracy did not matter, and there was no beach-head. The six comparative and competitive advantages that India has, suggest that there is a genuine opportunity for India to create a viable IFC able to compete with the best in providing IFS to the Indian and global markets in a short span of time. But, it confronts some daunting challenges. Our report highlights these in detail. They include: (a) financial regime governance in India; (b) missing markets and institutions and (c) urban facilities and governance in Mumbai.

7. Financial regime governance: policy and regulation

A sound basic framework for developing/applying law and regulation are intrinsic

to IFS. The quality and credibility of IFS provided from India is inextricably linked to the soundness and global acceptability of the regulatory/legal system that governs finance in India. Global competition in IFS is, to an extent, a function of global competition (in terms of reputation, capability, efficiency and effectiveness) among regulatory regimes and the institutions that apply those regimes. The market share of an IFC is determined as much by the quality and reputation of its regulatory/legal regime as by the abilities of its financial firms. A cross-country assessment suggests that India is weak on many aspects of the legal and regulatory framework governing its financial system which the report discusses in detail. The report also identifies two key strategic institutional (or structural) weaknesses in Indian finance that impede IFS production:

- **'Missing' Debt, Currency, and Derivatives Markets:** The most critical financial market components missing in India are: a properly functioning bond market, a currency market and a derivatives market for currencies and interest rates. These three interlinked markets are termed collectively as the ***bond-currency-derivatives (*BCD*) nexus*** in this report. Six specific deficiencies in this respect include the absence of: (a) a liquid and efficient sovereign bond market with an arbitrage-free INR yield curve, (b) a wide range of essential derivatives on INR interest rates, (c) a liquid spot market for INR-denominated corporate bonds, (d) credit derivatives on credit spreads or credit events, (e) a liquid currency market and (f) a full range of currency derivatives.

  Under a functional BCD nexus, all six elements are based on vibrant speculative price discovery, and are tightly knitted by arbitrage. They interact to result in market efficiency. There is no successful IFC that lacks such a BCD nexus. Its conspicuous absence in India handicaps the country's ability to provide IFS. Another shortcoming is the inadequacy of India's spot and derivatives markets – in terms of the variety of contracts traded and their traded volumes – in all areas other than equities. A normative rule-of-thumb would suggest that the traded volume of an exchange-traded futures contract in India should be at least one-tenth the turnover of a corresponding product in the US. By this yardstick, the turnover of Nifty futures is about that size. But that is not the case for almost all of the top 20 underlying contracts in the US.

- **An inadequate universe of institutional investors:** The second deficiency in India is a universe of institutional investors that have the size, visibility and capability of those in established IFCs. The progress made so far with liberalisation has been based largely on speculative price discovery by non-institutional investors in equity markets. Other segments are dominated by state-owned entities which are bound by restrictive rules. Banks and insurance companies are restrained, if not banned, from undertaking risk-hedging activities and other kinds of sophisticated business due to regulatory restrictions. Consequently their assets are growing too slowly.

  Indian financial firms tend to operate in one key business segment at a time. Their portfolios are narrowly confined and concentrated; so is their risk exposure. That has stunted their growth, imagination and ability to handle risk. Indian financial firms now need to evolve into full fledged *large, complex financial institutions* (LCFIs in Basel parlance). They need to operate in all financial market segments of finance to come up with credible IFS offerings and 'packages' for the export market.

  India lacks domestic commercial and investment banks capable of taking on global counterparts without higher levels of capitalisation, global market access, BCD operational expertise, and high-level human capital. India also lacks large securities brokerages capable of competing with global counterparts. India's brokerage industry reflects the infirmities of its retail sector as a whole. It is characterised by too many small, undercapitalised, limited-

capability firms (brokers and sub-brokers) that are mostly still single proprietorships in corporate form. Structural reforms are required urgently to create Indian financial firms that are equivalent in size and capabilities to global counterparts. Looking ahead, if India is to create an IFC, there is no escape from inviting the participation of domestic and foreign institutional investors of adequate size, who would deploy the economies of scale, global market-reach and efficiency-enhancing behaviour that is evident at other IFCs.

Why does India have these weaknesses? Close scrutiny of the regulatory regime examines the origins of these infirmities through a matrix that identifies and analyses restraints on the activities of different financial firms in providing various IFS. Such a matrix has been prepared as a 'wallchart' for this report. It outlines activities that take place at IFCs and the kinds of financial firms that typically undertake them. A careful analysis of this wallchart reveals that, at present, most of the IFS activities that take place at IFCs are banned or severely proscribed in India. The red ink across the wallchart – signifying activities banned in India – portrays the *license-permit-control raj* that still operates in Indian finance. It retards development and sophistication of the financial sector and inhibits IFS exports. A pragmatic view of these constraints highlights three urgent, cross-cutting priorities for reform:

- **Competition Policy**: India's experience with liberalisation in the real economy, suggests that the most powerful tool for having efficient and well-functioning firms is ***competition***. Application of sound competition policy in all market segments of India's financial sector is now a matter of urgency.
- **Compartmentalisation of the Financial System**: Global competitiveness requires exploiting fully the economies of scale and scope. India's hinterland advantage represents an opportunity to exploit such economies. However Indian finance has been artificially fragmented by financial sector policy and regulation. There is no IFC that has so compartmentalised an approach to the structuring, management and regulation of its financial markets. Reversing counterproductive segmentation of financial markets in India, and removing barriers to entry, would result in greater: economies of scale/scope, competition, and global market-reach.
- **Inhibiting Financial Innovation**: Whether an IFC should be created for India to catch up with the world, or to exploit comparative advantage in a global IFS market, a considerably faster pace of financial innovation in India is essential. But, financial regime governance in India can only cope with change slowly. The regulatory approach to any change in the structure or functioning of the financial system is conservative, cautious and inconducive to innovation. As a result India falls behind international practice by the day in every market segment. The default signal emitted by Indian regulators when faced with any new idea seems to be set at 'amber' if not 'red'. Innovative instruments, contracts and new ways of doing business are acted upon in days in the three GFCs. Such a pace of rapid progress is not found in India. Basic contracts like interest rate futures and options have failed to materialise in this climate.

Deregulation and liberalisation through the 1990s have largely unshackled India's manufacturing sector, and much of its real economy. Competition, innovation and scale economies in these sectors are no longer blocked by the State. Yet, somewhat dissonantly, a much higher degree of control continues to operate in key parts of the financial sector; despite the many regulatory reforms of the 1990s. This financial governance regime now needs to be overhauled to create a more modern governance regime. It does *not* need traditional fine-tuning with the extant regime remaining largely intact.

Regulatory reform has had a positive impact on the functioning of India's *capital markets* and the *insurance* sector. In the capital markets, India has achieved global

standards in some aspects. Other financial markets lag behind in not yet having been reformed as widely or deeply. Despite the presence of a large number of different types of banks, and despite incremental measures aimed at 'opening-up', the banking market in India has yet to improve substantially in competition, innovation and efficiency. The improvements achieved at the margins have not yet permeated the banking system as a whole. They are unlikely to, without a major reformative push and diminished public presence.

For that reason, a dramatic change in the governance regime for all financial markets in India is now imperative. Without it India will not be able to create an innovation-orientated financial system that can evolve and compete at a pace commensurate with changes in the Indian economy and global finance. Such a system would have the following activities undertaken on a par with global norms: (a) continual innovation and improvement in the design of financial products and customer services as well as in their delivery; (b) the rapid reintegration of segregated financial markets into more liquid and more integrated markets; and (c) the rapid growth and market-induced consolidation of Indian financial firms in a manner that enables them to achieve economies of scale.

For this to be achieved, Indian financial system regulation needs to be brought up to world standards. Regulatory attitudes, policies, practices as well as institutional arrangements need to undergo a sea-change. They need to become more attuned to, and supportive of, the dynamism, growth and global competitiveness of the Indian financial services industry. **Policy and regulation must adjust and adapt to the needs of Indian and global financial markets. Financial markets should not be artificially fragmented, segmented, compartmentalised.**

This report does not advocate using the hinterland argument as a reason for protectionism. Nor is the HPEC making an argument for 'self-sufficiency'. Instead the HPEC believes that India and Indian financial firms should be globally competitive in providing IFS through an IFC in Mumbai. The goal of public policy is to foster high economic growth and enhance welfare in India; it is not to cater to the interests of Indian firms or their shareholders. But, in saying this, the HPEC is mindful of the reality that developments during the last decade have resulted in a debilitating anomaly for Indian financial firms versus their foreign competitors. In manufacturing, the removal of barriers to imports was accompanied by a simultaneous unshackling of Indian firms. Indian firms were exposed to greater competition from imports and the entry of foreign MNCs in domestic market space. But they were, simultaneously, given a transitional period and considerable freedom in terms of formulating business strategies and innovating.

The evolution of Indian finance, in contrast, has resulted in growing dissonance between external competition and a repressive license-permit raj. India's long and tortuous evolution towards *de facto* convertibility (which in some respects is not dissimilar to tariff reductions in the real economy) has *not* been accompanied by Indian financial firms being given the same opportunity and room for manoeuvre to develop their competitive capabilities. They are at a disadvantage in coping with competition (for their clients' IFS business) from global IFS providers operating in India and from abroad for two reasons:

- *First*, key financial markets (i.e. the BCD nexus and risk management) have been prevented from developing in India because of regulatory restraints. That has resulted in Indian financial firms not having the opportunity or the time/space to develop domain knowledge and skill-sets in crucial areas e.g. global fund-raising or developing sophisticated risk management products/services tailored to client needs.
- *Second*, the same regulatory restraints have deprived Indian financial firms of the freedom they need to develop and the necessary flexibility in formulating global business strategies. They have not had the scope for innovating for IFS and thus developing the skills required to compete with global IFS providers.

The HPEC is clear that, in providing IFS from India, there is no case whatsoever for protectionism. The interests of Indian customers, and that of economic efficiency, are best served by enabling them to choose from the best IFS providers in the world. But, the asymmetry in policy that has placed Indian financial firms at a disadvantage, underlines the case for phasing reforms aimed at creating IFS capabilities in a manner that enables Indian financial firms to be similarly unshackled in competing to provide IFS.

8. Reorienting the financial system towards IFS provision: A temporal roadmap for reform

The strategy proposed in this report for creating an IFC comprises in essence a ten-point agenda:

1. ***Macroeconomic (i.e. Fiscal and Monetary) Management.***

   As a new competitor in global financial markets, the credibility of India's macro-economic policies, and the quality of its macroeconomic and financial system management, will be judged more stringently than in the case of established IFCs. This asymmetric reality highlights the importance of redoubling efforts in reforming policies, legal and institutional arrangements to achieve and sustain a high growth rate (8–10%) for the economy in general and the financial sector in particular.

   Creating a vibrant, competitive IFC in Mumbai will require, as an integral backdrop, success in meeting the legal commitments entered into by the Government of India, and the governments of individual states, to reduce the consolidated fiscal deficit on the timeline announced. In addition, it will require (a) reducing the total public debt/GDP ratio to more acceptable levels; and (b) pursuing sound fiscal and monetary policies thereafter.

   HPEC therefore recommends that further action should be taken to reduce more rapidly the consolidated debt of centre and states, including on-and-off-balance-sheet liabilities (such as pensions) and endorses a lower level (than the present 80%) for the total consolidated public debt-to-GDP ratio. A public debt ceiling should be bolstered by flexible triggers for actions to be taken by the Ministry of Finance (e.g. accelerated sales of public assets whose proceeds are used to liquidate outstanding public debt if that is deemed appropriate) when the adopted debt ratio ceiling is breached. While the HPEC did not wish to recommend a particular debt ceiling ratio without looking more deeply into the matter, global experience suggests that ratios in the range of 50–65% are widely applied as prudent. Such a debt ratio should be added to existing FRBM measures for deficit and debt reduction.

   For an Indian IFC to be credible, in keeping with 'best-practice' worldwide, India's central bank should be independent and separate from government. It must be independent and separate from government; i.e. in the same way that the Federal Reserve in the USA, the ECB in Europe, the various national central banks of Europe and Japan, and the Bank of England, are independent of and separate from their governments. The central bank must employ global best-practices in the conduct of monetary policy, in order to suffuse international investors and issuers with growing confidence in the INR as an acceptable global currency for IFS transactions. The level of confidence engendered should permit the INR to become one of the world's major reserve currencies by 2020 or 2025 at the latest.

   The gold standard for a stabilising monetary policy is a transparent, independent, inflation-targeting central bank. With such an arrangement the Indian State would be: (a) underlining its commitment to delivering low and predictable inflation; and (b) inducing greater confidence in the INR in the eyes of domestic and global investors. The HPEC recommends that the Ministry of Finance consider: (a) reforming

monetary institutions in the light of recent developments in monetary economics; and (b) doing so in a way that bolsters the case for a credible IFC in Mumbai.

HPEC also recommends a fresh look at applying key principles in guiding reform of the tax system on the revenue side, to ensure that India remains globally competitive, and avoids price distorting subsidies on the expenditure side. This has particular implications for ensuring that inflation-targeting is not distorted or rendered ineffective because subsidies (e.g. for key energy prices) emit the wrong inflation signals.

2. ***Strategy for Public Debt Financing***.

Traditionally, India has eschewed bond issuance outside the country, fearing the currency risk that arises with issuing forex bonds while having INR revenues. This risk of 'original sin' does not arise if INR denominated bonds are sold to meet foreign demand for such debt. **The HPEC therefore advocates opening up fully to foreign investment in INR denominated sovereign bonds issued by GoI . It further recommends that no limits should apply to purchases by foreign clients of INR denominated corporate bonds or bonds issued by sub-sovereign entities (states and metropolitan administrations). In addition, the HPEC believes that the function of a public debt management office should be placed in the Ministry of Finance rather than in a regulatory institution to avoid any perceptions of conflicts-of-interest**.

This would achieve two goals. *First*, it would open up a new financing channel for GoI (and state and municipal governments as well) thus enabling it to abandon repressive policies that pre-empt domestic savings with an array of undesirable and unintended consequences (e.g. crowding out and undue pressure on the INR interest rate). *Second*, the *internationalisation* of INR bonds (issued by the sovereign, sub-sovereigns and corporates) would accelerate the emergence of an Indian IFC on the world stage.

There is considerable unmet global demand for INR bonds on the part of long-term institutional investors such as foreign pension funds. A rapidly emerging INR *bond market* would trigger currency trading in India and foster the use of INR currency and interest rate derivatives. That would facilitate the evolution of the INR as a global currency, used as a *numeraire* by bond investors and issuers from India and around the world. Internationalisation of the INR (a prerequisite for a successful IFC in Mumbai) would expand transaction volumes in India's bond, currency and derivatives markets, as well as its equity and commodity markets, coterminously. It would expand the range of financing options open to, and seignorage revenues derived by, the Government of India and its central bank.

3. ***Creation of the* BCD *Market Nexus***.

The most important missing piece in Indian finance is the BCD nexus explained earlier: i.e. the set of interlinked bond-currency-derivatives markets for spot and derivative instruments on interest rates, currencies and credit risk. In order to ignite these markets, **HPEC recommends the immediate creation of a currency spot market, with a minimum transaction size of Rs. 10 million, accessible to all financial firms. In addition, an INR-settled exchange-traded currency derivatives market should be created, with trading in futures, options and swaps on currencies, accessible to all**.

These two initiatives, along with developing more rapidly the spot market for bonds, need to be merged into the existing securities exchange ecosystem so as to trade alongside the spot and derivatives markets for equity. The policy problems that have held back interest rate futures need to be rapidly resolved. The responsibility for regulation of these markets – spot or derivatives; exchange or OTC; government bonds, corporate bonds, and currencies – needs to be

moved to SEBI without further ado and unified with the regulation of all organised financial trading. The goal should be to create and launch a significant BCD nexus, in conformity with world standards, within 12 months.

4. ***Financial Market Integration and Convergence vs. Market Segmentation***

Indian finance suffers from a fragmented approach whereby the overall financial industry has been cut up into pieces reflecting legislation that is outdated by 50 years or more. IFS exports will not take place as long as the competencies of Indian financial firms are artificially stunted. India now needs its own LCFIs present in all lines of business, and able to achieve economies of scope and scale. **A series of measures are needed to achieve market integration and convergence, and thus enable economies of scale, economies of scope, greater competition and enhanced IFS export capability,** i.e.:

4.1 Redraft the legal foundations for organised financial trading, so as to unify all organised financial trading under SEBI regulation. This would include currencies, equities, sovereign and corporate bonds, and commodity derivatives. It would immediately diminish some of the fragmentation which has taken place amongst financial firms.

4.2 Remove barriers to a holding company structure through which virtual financial firms can be created, with an array of subsidiaries that fit Indian regulatory constraints but with corporate headquarters and top management able to operate a unified financial firm. The holding company would be regulated only by the Companies Act. It would typically be listed and able to leverage itself; while its subsidiaries might be unlisted. All barriers to M&A in finance need to be identified and removed, so as to achieve a market-induced consolidation process which would permit Indian LCFIs to emerge.

4.3 Create *wholesale asset management businesses* with freedom for outsourcing by existing financial firms such as banks or insurance companies. This would separate the legal and contractual structures through which assets are sourced and securities are created – across multiple front-ends across the country – from the 'factories' in which assets are managed. It would also achieve economies of scale in asset management.

4.4 Shift away from regulation by *entity* to regulation by *domain*. As an example, IRDA would regulate only the insurance *business*, not all the activities of insurance companies.

5. ***Principles-based Regulation***

Over the decades India has built up a license-permit *raj* in finance. It over-emphasises compliance at the expense of competence, competition and innovation in financial services. A similar *raj* dominated the real economy since independence. But it was dismantled during the 1990s to the immense benefit of the Indian economy and particularly Indian global competitiveness. To achieve the same objectives, that *raj* in finance now needs to be dismantled if India is to develop IFS provision and export capabilities and if an IFC is to emerge in Mumbai.

At present financial regulation in India is fragmented and rules-based. It is over-prescriptive and restrictive of managerial discretion. In every market segment, regulators attempt to codify every detail of a business in which the shape of the future can neither be anticipated nor predicted. Anything not explicitly permitted is banned. Any proposed change in the way of doing business requires clearance from the regulator. Supervisors apply checklists in verifying that every rule is met while not quite understanding all the dimensions of the business possibilities of the regulated entity and how it might evolve. This approach is inflexible and unamenable to swift adaptation of a kind that the world of global finance demands. This is counterproductive for the purposes

of fostering IFS provision capabilities and inappropriate for an IFC.

HPEC therefore recommends that rules-based regulation in India be replaced by principles-based regulation. That will require redrafting India's securities and banking laws as well as re-skilling of all regulatory staff. **HPEC also recommends that a new unified Financial Services Modernisation Act (FSMA) be drafted to bring together, under a single omnibus legislative umbrella, all aspects of financial services: i.e. securities trading, banking, derivatives, insurance and commodity-finance.** Such omnibus legislation should reflect the holistic nature of the financial services industry while creating the foundations for regulation to be modernised and, possibly, unified in the fullness of time. This new law should draw on the models of the UK's FSMA and the US' CFMA, and be aligned with the shift away from rules-based regulation that is now being witnessed around the world. The new omnibus law should embed an appeals procedure – under an International Financial Services Apellate Tribunal (IFSAT) – that allows for: (a) appeal against any action of any financial regulator in India; (b) broadening the scope of appeal; and (c) judges having specialised domain knowledge in finance.

6. ***Capital Account Convertibility***

The convertibility question is critically linked to the possibility of a currency crisis, which India has successfully avoided over 1991–2007. This discussion needs to be illuminated by three key points. First, the present Indian policy configuration is not a 'consistent' one, given a pegged exchange rate and attempts at having an autonomous monetary policy while having significant capital account openness. This has, in the past, led to potentially destabilising one-way bets for foreign capital. Second, it is clear that if IFS export is the goal, this is incompatible with capital controls. Third, the growing integration of India into the world on the current account and the capital account is giving de facto convertibility in any case. Myriad other countries have perfected the combination of autonomous monetary policy and convertibility. India needs to emulate the dozens of successes, and avoid the mistakes made by the few failures.

Having considered the recommendations of the Tarapore-2 Committee Report very carefully, the HPEC nevertheless recommends that full capital convertibility should be achieved within a time-bound period of the next 18-24 months and by no later that the end of calendar 2008.

This recommendation needs to be dovetailed with an 18-24 month timetable for acting on HPEC's other recommendations. That would kill two birds with one stone. It would accommodate the accepted international consensus that a country moving to convertibility must have liquid and efficient financial markets and strong institutions. Also, India's opportunity to export IFS will really open up *after* convertibility. So, between now and then, a window of opportunity exists to tackle issues of public debt management, and missing markets/institutions, with forceful remedial measures.

7. ***Taxation of* IFS *and Financial Transactions***

HPEC recommends a rational and fair tax system for IFS which is competitive by international standards. The HPEC is against creating a tax haven in an Indian IFC.

A key HPEC recommendation endorses the Kelkar Committee Report's proposals for including financial services under the Goods and Services Tax (GST) regime with the simultaneous removal of all central and state transaction taxes including the Securities Transaction Tax (STT), stamp duties, etc. These recommendations should be implemented as swiftly as possible.

8. ***Inducing greater competition and innovation in the Indian financial system***

HPEC has made a series of specific recommendations in Chapter 15. All of them aim at inducing greater competition and innovation in the Indian finan-

cial system and in the provision/export of IFS. Apart from what has already been said about reversing the excessive segmentation and compartmentalisation of financial markets, these measures include, *inter alia*:

- **Removing existing barriers to entry of private domestic corporate players in some segments of the financial services industry;**
- **Removing barriers to the entry of foreign financial firms in the provision of IFS on the grounds that unilateral liberalisation is in India's own interests;**
- **Restricting demands for reciprocal market access only to domestic financial services;**
- **Reducing the extent of public ownership progressively in Indian financial institutions;**
- **Removing existing barriers to friendly or hostile mergers, acquisitions and takeovers in the financial services industry within/across market segments; and**
- **Encouraging the emergence of Indian LCFIs through market-driven initiatives.**

9. ***Improving the performance of the legal system for finance*/IFS**

HPEC believes that significant improvements need to be made in the Indian legal system in resolving disputes, adjudicating settlements and enforcing financial contracts in real time. If that does not happen the prospects for Mumbai emerging as an IFC, or aspiring to become a GFC, will be irreparably damaged.

10. ***Opening up space for* IFS *support services infrastructure***

Related to improvements in the legal system as they apply to finance and IFS, the **HPEC recommends opening up domestic space to permit the entry of well-known international law firms that operate in other IFCs and GFCs as well as international accounting firms and tax advisory firms as well as specialist management consulting firms focusing on the IFS industry.** This recommendation is made so that India can catch up quickly with the rest of the world in becoming a competitive provider of IFS through an IFC in Mumbai. It will not do so if it is left to existing domestic law, accounting and tax advisory firms to develop domain knowledge and skill-sets organically – in coping with the demands for IFS related legal, accounting, tax and business advisory services –without being confronted with the pressures of competition and innovation in their market.

Swift implementation of this ten-point programme, would orientate Indian financial firms towards achieving IFS export competitiveness. It has ramifications for macro-economic policy that have already been spelt out. It is consistent with the pursuit of sound practices in fiscal, monetary and exchange rate management. These recommendations constitute a dovetailed agenda that would be wise for India to follow in any event regardless of the arguments for or against an IFC.

9. Urban infrastructure and governance in Mumbai

The lure of the burgeoning Indian market has already attracted a large number of foreign financial firms to Mumbai. They have, in turn, located an increasing number of high-level expatriate staff in the city, creating intense competition and driving up prices quite dramatically for limited accommodation and lifestyle facilities that are not yet world class. A Mumbai-IFC that provides IFS only to the Indian market will not face the same pressures from foreign firms and expatriates to remedy the privations that they presently have to suffer: i.e. inadequate infrastructure, massive congestion, rampant pollution, along with poor standards of urban governance and law enforcement. In HPEC's view the present state of play can be tolerated reluctantly even as Mumbai grows as an IFC in its first phase, connecting India to the rest of the world. But that can only last for the next five years or so.

In its second phase of growth, if Mumbai is to be a successful GFC that

exports to global markets competitively, it will have no choice but to match London, New York and Singapore in terms of attracting the requisite high-level human talent to the city. If it fails to do so it will not succeed as a GFC. To match these global cities in the span of the next 5-10 years for their world class quality of infrastructure and their global standards of governance, Mumbai needs to make a start **now**.

The individuals that Mumbai must attract (and who matter most) to be globally competitive in providing IFS– whether Indian or not and whether working for Indian or foreign firms – are affluent, mobile, and multi-culturally inclined in terms of their habits, tastes and preferences. They demand world class facilities to live, work and play, as well as world standards of infrastructure and urban governance. They have ample choice in terms of where they (and their families) choose to be located, and how their time is allocated. Whether they choose to locate in Mumbai will be influenced by the attractions of Mumbai as a *global* city in which they can live, work and play in a manner similar to what they can do in other GFCs. This reality may involve the creation of facilities to support lifestyles that could result in increasing social tension in the city; that risk will need to be managed sensitively and adroitly.

For Mumbai to become an IFC that can operate on a par with the three established GFCs, it will eventually need to attract a large population of individuals who are an integral part of the globally mobile (*globile*) finance workforce that already exists. Perhaps 25–30% of them will be of Indian origin. The remainder will be expatriates from around the world representing every country that has significant trade and investment links with India (and Asia). Most of them will be working for foreign financial firms that will include, *inter alia*: commercial and investment banks, asset management companies, insurance companies, securities and commodities brokerages, bills discounting houses, private equity firms, venture capitalists, hedge funds, as well as the financial media and financial reporting agencies (such as Bloomberg, Reuters, major global financial publications) and exchanges – even external and global regulatory agency representatives – from over a hundred different countries. To attract such internationally mobile high-level human capital to an IFC in Mumbai, special efforts will be required on four fronts: i.e.

- ***First***, elementary, glaring deficiencies in **Mumbai's urban infrastructure** will need to be addressed and rectified on a war footing. These deficiencies have, over the last decade or more, been discussed in central, state and municipal government circles, the media, the corporate world, and by the public at large. Progress in addressing these deficits is now being made. The HPEC was assured by the CM of Maharashtra that the pace of progress was about to accelerate. Mumbai's deficiencies include: crumbling housing in dilapidated buildings pervading the city; poor road/rail mass transit as well as the absence of water-borne transport in what is essentially an island-city; absent arterial high-speed roads/urban expressways; poor quality of airports, airlines and air-linked connections domestically and internationally; poor provision of power, water, sewerage, waste disposal, as well as a paucity of high-quality residential, commercial, shopping and recreational space that meets global standards of construction, finish and maintenance.
- ***Second***, Mumbai will need to be seen as a cosmopolitan metropolis that welcomes and embraces migrants from everywhere – from India and abroad. That will mean providing more user-friendly visa/resident permit mechanisms, making all arms of government expatriate-friendly, and exhibiting a gentle, tolerant, open and welcoming culture.
- ***Third***, lifestyle facilities that concern human welfare will need to be brought up to world standards and run on world-class lines in terms of their management and growth. These include: hospitals and the health system (public and private); educational facilities

such as primary/secondary schools, colleges, and universities; recreational facilities such as sports stadiums (for a wide variety of sports and not just cricket), gymnasiums, cinemas, theatres, parks, clubs, hotels, bars, restaurants, racecourses, casinos and other entertainment avenues; as well as cultural institutions such as libraries, art galleries, museums and the like, catering to global tastes.

- ***Fourth***, the quality of municipal and state governance, the provision of personal security and of law enforcement, will need to improve dramatically from third-world to first-world standards to accommodate an IFC. That is likely to prove the greatest challenge of all.

Of course, Mumbai needs to tackle these infrastructure deficits for reasons other than becoming an IFC. The IFC is too small a tail with which to wag the much larger urban development dog. But the case for an IFC would be immeasurably enhanced if it succeeds in doing so. For that reason, HPEC recommends a fresh attack on the legal issues of urban governance, in a cohesive effort, undertaken on a war-footing, between the Centre, Maharashtra and Mumbai. The aim must be to create a city government with the necessary autonomy, accountability and power to provide local public goods in Mumbai in a reasonably unfettered fashion. Mumbai's needs must be met irrespective of rural versus urban considerations. The city's administration must have an earmarked funding stream through tax sharing, in addition to user charges and property taxes that it can levy independently, to finance the creation of a 'global city' in Mumbai.

10. The choice

India has already become a large purchaser of IFS from the rest of the world; much larger than is realised in policy-making or commercial circles, leave alone by the public at large. As its economy grows, its demand for IFS will increase in a non-linear fashion. India can, of course, choose to continue buying IFS from abroad indefinitely. But the amounts it will need to spend for that purpose are staggering. They represent a waste of resources on purchasing services that India could provide more competitively for itself. Moreover, an inability to meet its own needs – and those of its trading and investment partners – for IFS will compromise India's growth.

Oddly enough, India does not need to rely on foreign providers for IFS. Quite the contrary: India has several significant strengths that give it an edge in providing IFS not just to itself but to the rest of the world on a competitive basis. Indeed, there is no city in the world that can become an IFC on the scale of London or New York, within a 20-year horizon, in the way that Mumbai can. This reflects India's unique strengths of: democracy, open-mindedness, cultural comfort with foreigners living and working in Mumbai, use of English, a well placed time zone, high quality labour force, a 200 year tradition of speculation and risk taking, and a hinterland advantage.

But such a future for Mumbai is far from guaranteed. At present, India is absent from the global IFS space, owing to weaknesses in financial sector policy, financial market structure, financial regime governance, legal system infirmities, as well as in the urban infrastructure and governance of Mumbai. The situation is worse than initial conditions were for manufacturing and software exports in 1991. India does not have a *low* market share in the global IFS market: it has a *zero* market share.

Looking ahead, the growth of IFS demand in India is inevitable, given the sheer growth of cross-border flows. The pressure of IFS demand that will flow from cross-border transactions of $1–2 trillion per year will inevitably trigger the emergence of rudimentary IFS capabilities in one way or another. The question that India faces is whether incremental evolution towards a limited range of IFS capabilities is adequate, or whether there is a more promising future for India in exporting IFS.

If decision-makers fail to tackle the policy issues outlined in this report, Indian IFS demand will fuel the growth of Wall Street, Singapore, DIFC and the City of London; often through the aegis of Indian financial firms that will graduate

into multinationals and relocate their IFS operations outside the country.

The maturity of Indian finance in 2006, in terms of coping with competition and globalisation, is comparable to where Indian manufacturing stood in 1991. The export of financial services from India in 2006 sounds about as unlikely today as the export of automobile components or software sounded in 1991. The outlook for export of automobile components or software in 1991 was nothing but bleak. Yet India managed to find the energy to unleash revolutionary changes in policy.

Such radical changes now need to be replicated in finance, if export competitiveness in the provision of financial services (domestic and international) is desired and to be achieved. Visionary thinking needs to be applied to issues of financial architecture, the role of the central bank, and regulatory philosophy.

In parallel, Mumbai needs to become a first-world city that can attract the brightest minds of the world by being an attractive place to live, work and play.

If India is able to meet these twin challenges, then IFS exports could outstrip IT service exports by 2025. The benefits to the Indian economy, from taking the IFC path, are much greater than the direct revenues that would accrue from sale of IFS to local and foreign customers. India's experience with manufacturing has demonstrated that outward orientation and export competitiveness are the best tools for producing world class quality for the domestic market. An Indian financial sector that can export IFS will do a better task of financial intermediation for India. That is likely to generate an acceleration of GDP growth as growing investment resources (now exceeding 30% of GDP) are more efficiently allocated.

These benefits need to be weighed carefully by India's leadership against the political capital that needs to be expended in overcoming the technical and *realpolitik* constraints of: (a) changing the financial system in India with a second, more intensive set of reforms; and (b) urban governance in Mumbai.

This report has tried to bring objectivity and professional competence to sketching the trajectory, should India's leadership decide to take the IFC path. It strives to deliver a nuanced appreciation of the likely costs and benefits of the path to an IFC, based on understanding of which policymakers can make a reasoned choice.

HPEC Report on making Mumbai an International Financial Centre: Timelines for Recommended Actions

Recommended Actions	2007 by Quarter				2008 by Quarter				2009 by Quarter				2010 by Quarter				2011>
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Year
A. Actions on Fiscal Deficit, Tax and Public Debt Financing/Management Fronts:																	
1. Achieving and maintaining an average growth rate of 9% to 10%	Increase to 9%				Increase to 9.5%				Increase to 10%				Maintain at 10% or more				
2. Reduce the gross consolidated fiscal deficit (GCFD) from 8+ to 4–5% of GDP.	Reduce to 7%by y.e.				Reduce to 6%by y.e.				below 5%								
3. Reduce total public debt to GDP ratio from 80% of GDP to significantly less.	Reduce to 75%				Reduce to 70%				Reduce to 65%				Reduce to 60%				<50%
4. Implement the FRBM Task Force Report of 2004.	Implement 40%				Implement 70%				Implement 100%				Implementation Completed				
5. Eliminate Securities Transaction Tax (STT) and Stamp Duties (SDS).	Eliminate STT				Eliminate all SDS				All Transactions Taxes, Stamp Duties eliminated								
6. Apply GST to the financial services industry.	Technical Studies				Preparation Phase				Pilot Phase				Implementation				
7. Open up purchase of INR denominated debt instruments issued by GoI to All Buyers	Open up fully				No further restrictions on INR denominated paper for any buyer												
8. Restructure budgets/'balance-sheets' of states and metropolitan municipal corporations	Start Phase-1				Phase-2				Phase-3				Phase-4 Complete				
9. Shift burden of future infrastructure financing from public to private sector through PPPs	Pilot PPP Projects				PPPs in 10 states				PPPs in 15 states				PPPs in All states				
10. Set up independent public debt management office (or as second-best locate it in MoF)	*De facto* shift				Independent PDMO				Public Debt Managed Independently								
B. Actions on Monetary Policies and Monetary Management based on Inflation Targeting																	
11. Focus Monetary Authority exclusively on single task of managing key short-term 'base rate'	Technical Studies				Policy Decisions				Implementation of Changeover				Separate Regulator				
12. Full CAC to be achieved in a time-bound manner within the next 18–24 months	Technical Studies				Prepare		Execute		Capital and Current Accounts Fully Open								
C. Actions on Financial Regime Governance and Financial System Regulation																	
13. Improve functioning of Legal System insofar as it affects financial services.	Phase 1				Phase 2				Phase 3				Legal System at Global Standard				
13A. *Improve knowledge-skills and training of judges and arbitrators*	Train 30% of staff				Train 65% of staff				Train All Staff				Continue training/updating				
13B. *Reduce Case Backlog of cases involving financial contract disputes*	Reduce by 25%				Reduce by 50%				Reduce by 75%				Eliminate Totally				
14. Create International Financial Services Appellate Tribunal (IFSAT) covering all of finance.	Technical Studies				Insurance/Pensions				Extend to Banking				Extend to all of finance				
15. Permit unrestricted entry of well-known global legal firms operating in other IFCs/GFCs	Prepare Ground				Open up Entry				All Global legal firms permitted to operate								
16. Permit unrestricted entry of well-known global accounting firms operating in IFCs/GFCs	Prepare Ground				Open up Entry				All Global Accounting firms permitted to operate								
17. Dismantle barriers between different financial market segments	Except Banking				Include banking				No further compartmentalisation of finance								
18. GoI to prepare 'exit strategy' for its withdrawal from the ownership of financial firms	Build Consensus				Non-bank PSFFS				Strong PSBs				Weak PSBs				All PSFFS
19. GoI to reduce equity stake gradually in all types of public sector financial firms; esp. PSBs	Prepare Ground				Reduce to <49%				Reduce to <33%				Reduce to 26%				0 by 2015
20. Shift Financial Regulatory Regime from Rules-Based (RBR) to Principles-Based (PBR)	Technical Studies				Apply PBR-SEBI				Apply PBR-IRDA				Apply PBR-BR				All PBR
21. Conduct Periodic Regulatory Impact Assessments of the financial regulatory regime.	Prepare Ground				RIA for Banks				RIA-Cap Markets				RIA–Others				Regular
22. Examine Carefully the Need for changing extant Regulatory Architecture	Technical Studies				Consolidation to 4				Consolidation to 2?				Single Regulator?				Unified?
23. Trading platform for sovereign bonds to be moved to exchanges (NSE and BSE)	Technical Studies				Shift Platform				All bond trading to be done on market exchanges								
24. Draft new Financial Services Modernisation Act embracing 'Principles Based Regulation'	Prelim Drafting				Consultations				Final Draft				Table FSMA Bill				FSMA
24A. FSMA *should incorporate redrafted Banking Regulation Act (BRA) giving banks more flexibility*	Prelim Drafting				Consultations				Final Draft				Table FSMA Bill				FSMA
25. Transfer all regulation/supervision of any type of organised financial trading to SEBI.	Technical Studies				Execute Transfer				All financial market trading supervised by SEBI								
26. Distinguish between wholesale and retail markets and use appropriate regulation for each	Technical Studies				Separate Markets				Wholesale and Retail Markets regulated differently								
27. Open up immediately to DMA and algorithmic trading	Rules		Open		No bans on DMA and algorithmic trading to be regulated reasonably												
D. Actions on Filling the Gaps in 'Missing Markets'																	
28. Create rapidly the Missing BCD Nexus in Indian Capital Markets:																	
A. Bond Market	Technical Studies				Shift Platforms				Widen and deepen sovereign/corporate bond markets								
B. Establish Currency trading exchange with a minimum transaction size of INR 10 million	Prepare		Launch		Currency Market operates on NSE/BSE supervised by SEBI												
C. Derivatives Market: Shift trading in vanilla products (futures, options, swaps) to exchanges	Widen Range of Contracts to cover currencies, interest rates, credit default and trade them																
D. Retain and Expand OTC trading of exotic and tailor-made derivatives.	Widen OTC trading				Continually expand range of products traded on OTC to global levels												
E. MoF to review/remove constraints on any financial firm operating in derivatives	Technical Study				Remove all restrictions/bans other than usual prudential regulations												
F. Create INR cash settled currency derivatives on exchanges open to all (FIIs).	Technical Study				Launch range of multi-currency futures, options, swaps for trading												

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Recommended Actions	2007 by Quarter				2008 by Quarter				2009 by Quarter				2010 by Quarter				2011>
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Year
E. Actions to Strengthen Institutions operating in Indian Financial Markets																	
29. GoI to support emergence of Indian LCFIS to emerge, through M&A and takeovers.	Technical Studies			Remove Restrictions			Encourage M&A		Let market drive consolidation and segment integration through financial system								
30. GoI to permit Wholesale Asset Management regulated by SEBI (minimum account Rs.10 crores)	Technical Study			Framing of Rules			Launch WAMS		Encourage rapid expansion of WAM with PBR-based regulation by SEBI								
31. Remove all impediments to outsourcing of asset management by banks, insurance companies, mutual funds, pension funds, FIIS, hedge funds, etc.	Technical Study			Remove Restrictions			Full outsourcing of asset management activities by any financial firm operating in India										
32. GoI to bring forward liberalisation of financial sector in keeping with commitments to WTO Agreement on Trade in Financial Services.	Technical Studies			Accelerated liberalisation Programme in place					Indian financial system fully open to global participation subject to prudential regulation and fitness tests								
33. Interim adjustment period of two years for Indian institutions to adapt to global competition.	Capacity building by Indian firms								Indian financial sector open to foreign competition								
34. Opening of branches by domestic banks to be decontrolled immediately.	All restrictions on branch opening by domestic banks to be removed immediately																
35. Opening of branches by foreign banks to be decontrolled after one year					All restrictions on branch opening by foreign banks to be removed												
36. Remove immediately all restrictions limiting corporate ownership of banks to 10%	Restrictions limiting private corporate ownership of banks to 10% to be removed																
37. Open up Indian capital markets to entry of hedge funds and alternative investment vehicles	Remove all restrictions on entry of hedge funds and AIVs																
38. Set up range of programmes for development of specialised human capital for the financial industry	Set up MSc in Finance and a range of specialised technical training programmes																
F. Actions to Improve Infrastructure in Mumbai																	
39. Transport Infrastructure:																	
A. Intra-city roads and arterial routes [PPPs]	Phased development and expansion of Mumbai's road transport capacity																
B. Coastal Highways and Expressways [PPPs]	Technical Feasibility Studies						Tenders Preparation				Contracts		Construction				
C. Suburban Railways and new Metro System [PPP]	Technical Feasibility Studies						Tenders			Contracts			Construction				
D. Water-borne Transport – Ferries/Hydrofoils/Jetfoils [PPPs]	Feasibility			Tenders			Contracts			Facility Construction and Operations							
E. Increase/upgrade airport and runway capacities	Actions already taken for Santa Cruz and Sahar. New plans for Navi Mumbai airport and runways																
40. PPPs for Power Infrastructure:																	
A. Increase in Power Generation Capacity $(24 \times 7 \times 365)$	Studies			Tenders			Contracts			Power Plant Construction and Operations							
B. Increase in Transmission/Distribution Capacity	Studies			Tenders			Contracts			T&D Line Construction and Operations							
41. Water Supply, Sewerage& Drainage:																	
A. Increase in Storage Capacity and Pipelines [PPP]	Plans and Projects underway to increase and improve water supply quantity/availability																
B. Increase in Filtration and Water Quality [PPP]	Plans and Projects underway to increase and improve water quality																
C. Upgrading/Expansion of Sewerage Capacity	Plans and Projects underway to increase and improve sewerage capacity/treatment																
D. Upgrading of Storm and Flood Drainage	Plans and Projects already underway to increase and improve storm/flood drainage																
42. Increase Waste Disposal Capacity: For solid and liquid waste with environmental protection	Develop PPPs					Contracts			PPP Contracts Underway and Operating								
43. Telecommunications Infrastructure:																	
A. Substantial Expansion of Cellular Network	TRAI to hold cellular operators to service quality commitments to upgrade continuously																
B. Expansion of Landlines and Broadband	MTNL to expand landlines in keeping with demand growth; increase competition																
C. Expansion of International Bandwidth	VSNL, FLAG to increase bandwidth rapidly; introduce greater foreign competition																
44. Accommodation: Residential, Office and Commercial	Drop ULCRA/RCA					Normalise rentals			Dispense with all controls except urban planning								
G. Actions to Improve Urban Governance in Mumbai																	
45. GoM and BMC to appoint or arrange to elect a City Manager accountable for Mumbai	Prepare Groundwork			Appoint/Elect			Place City Administration under full control of City Manager										
46. Bring the existing city governance machinery under the full control of the City Manager	Prepare Groundwork																
47. Establish independent financial base for the city that is under the control of the City Manager	Study Options			Agree Fund Sources			Place City on mainly independent financial footing										
48. Rationalise and streamline to organisation structure and lines of responsibility in city management	Organisation Study					Transition			Implement Rationalisation/Streamlining Programme								

The Emergence of IFCs: A brief history

chapter 1

1. Meeting cross-border trade, investment and other needs

The growth of international finance has been shaped by history. It is a chronicle of episodic needs for capital across geographies outgrowing the domestic resources available. Financial services, institutions and markets have evolved in response to requirements for capital. As colonial empire-building and industrial development took off – in Europe, the Orient and elsewhere – large financing needs arose that triggered the need for large cross-border financial firms and markets to emerge. Such needs were compounded by new technologies that enabled the geographical separation of production from consumption (of goods and services) around the world. They fuelled exponential growth in cross-border trade and investment. These economic forces were, and are, the main drivers of international financial services (IFS).

At first, merchants who became bankers worked alone to raise or put together funds for large investments. They gradually diversified their sources of funds to royalty, church, landed aristocracy, and wealthy professionals. Modern-day financial infrastructure did not exist. Central banking and financial regulation were nascent and primitive. Securities exchanges/markets were few and far between. Credit-rating facilities were nonexistent. Resort to law for the settlement of financial disputes was virtually unknown. In this raw environment, vendors in each centre of finance acted alone or collaborated with partners in other locations with extreme caution. That resulted in delays and inefficiencies. Yet these early impulses saw incipient clusters of financial expertise emerge that evolved into IFCs. Over time, many city-states specialised in arranging complex financing deals and providing trade financing services to specific regions.

In this chapter we take a synoptic look at the evolution of IFCs around the world, consider how they might classified in terms of what they do and whom they serve, look at recent trends in the formation and spread of IFCs and, finally, we examine at the case for Mumbai to emerge as an IFC as India takes its place in the world.

2. Evolution of international financial services (IFS) and centres (IFCs)

The provision of IFS has a longer chronology than commonly recognized. The world had a global currency (based on gold and silver) for several centuries. IFS–in the most basic conceivable forms – were provided by merchant traders-cum-financiers for at least two millennia; if not before. Pre-modern IFS flourished across Europe, the Middle East, and coastal Africa, under the umbrella of the Roman Empire – which also traded with Persia and the Orient. Its trajectory was nearly extinguished between the 5th and 11th centuries AD but IFS revived to finance the Crusades in the 12th and 13th centuries.

The antecedents of modern IFS are traceable to the Renaissance when the city-states of Venice, Florence, Naples and Genoa became mercantile centres that dominated trade between Europe and the Orient from the 14th to 16th centuries. In the 17th and 18th centuries these Mediterranean centres were superseded by the rise of Amsterdam, Lisbon, London, Madrid, and Paris as IFCs, with the discovery of the New World, the Antipodes, and the establishment of colonial empires across the Americas, Africa and Asia by European powers; viz. Britain, France, Holland, Spain and Portugal.

The nature of mercantile IFS was transformed with the first round of globalisation that occurred from the mid-19th to the early 20th century. It was revolutionised again by the second round of globalisation that had its origins in post-2nd world war reconstruction and recovery, but gathered real steam since the 1970s. Since the 1980s globalisation has entered a new and more intensive phase. It has become the principal force driving and reshaping the world economy. In the process, it is increasing the tensions caused by an economy that is increasingly global, being inadroitly governed by polities that remain national and, as yet, incapable of graduating toward the kind of supranational governance that globalisation demands.

3. The first round of globalisation: circa 1860–1914

From around 1860 onwards, there was a quickening of the pace of first-round globalisation, owing in part to the following major developments among others:

1. In 1856, a 4,000-mile telegraph system linking Calcutta, Agra, Mumbai, Peshawar and Madras was completed. It was the first high-speed messaging system in India.
2. After the US Civil War, economic growth in the US took off based on liberal, market driven egalitarian economic relationships, *i.e.*, without relying on slave labour. In the 1860s the First Transcontinental Railroad was built, with construction from both coasts linking up in 1869.
3. In parallel, railways were being constructed in India where, by 1870, over 6,400 kilometres of railway lines had been put in place.
4. In 1865, telegraph links between Europe and India became operational, so that a message could get from London to Mumbai in less than 4 minutes. In 1866, the first transatlantic telegraph cable was completed.
5. In 1869, the Suez Canal was built halving sailing time between London and Mumbai.

By 1870, two large, productive and politically stable, economic blocs – the British Empire (with India as its economic centrepiece) and the US – had emerged as dominant. They straddled the extremities of the globe from west to east with well established intra-imperial trade routes connected by steamships, railways and the telegraph. But the world economy of the 19th century was not limited to these two blocs. Other European powers also had 'intercontinental' empires in the Americas, Africa, and Asia. These were similar to, but much smaller than, the British Empire. The Russian and Ottoman empires exerted domain over territories in Eastern/Central Europe, and the Middle East and North Africa respectively. Japan established its own empire in Korea and Formosa (now Taiwan).

Cross-border trade occurred mainly *within* the geographies of these separate empires, rarely *across* them. But there was inter-empire trade in Africa, Asia and Latin America across contiguous borders of neighbouring colonies (*e.g.*, between British Kenya and German Tanganyika as well as Italian Ethiopia, between British Nigeria and French Cote d'Ivoire, or British Malaya, Dutch Indonesia and French Indochina).

The 19th century saw a historically unprecedented surge of intra-colonial trade with accompanying demand for trade and investment related IFS. Sophisticated trade finance spilled over into long term investment finance, for plantation farming, ranching, mining and infrastructure (*e.g.*, railroads and steamships) as well as the production of agro-industrial and industrial manufactures. Thus trade and investment (for localised production, based on natural and comparative advantage, but aimed at empire-wide consumption) provided the principal impulses for the development and growth of IFS in enabling economic decentralization and geographical dispersion. They still do that today; but, on a much larger scale, with the growth of cross-border trade and investment far exceeding the rate of global output growth.

During the first round of globalisation, London was the pre-eminent IFC, with Amsterdam and Paris playing supporting roles. New York was still in its infancy then. It did not come into its own till around 1918. This was an age of universal capital convertibility. Citizens of the world were free to move their assets across boundaries without governments or central banks impeding them. Enormous pools of capital were intermediated in Europe for investment abroad. Savings were mobilised in London from around the British Empire (including India) for investment in the Americas, as well as the British colonies in Canada, the Caribbean, Africa, the Middle East, Asia (West, South and East), the Indian Ocean and the Antipodes.

In this period, large amounts of capital flowed from rich to poor countries. Funds for investment in the colonies of continental European empires were raised in their imperial capitals; but augmented by global funds raised in London for large risky ventures: *e.g.*, ranching and mining in Chile and Argentina, mining in almost all of Southern Africa, and for financing telegraph systems, railroads, sailing and steamship lines, telegraphy, and such monumental projects such as the Erie and Suez Canals.

4. An interregnum, the second round of globalisation (1945–71), and beyond

In the late 19th century IFS accelerated dramatically, driven by the industrial, transport (steamships) and communications (telegraph) revolutions, resulting in a structural transformation of the world economy. More technologically-driven change in the world economy occurred in the course of the 19th century than in the two previous millennia. It triggered profound geopolitical change, resulting in a series of European wars culminating in two world wars.

The 20th century that followed made the remarkable 19th century appear primitive by comparison. Progress – in air transport, information, communications and process technologies for manufacturing, in semiconductors, transistors and silicon chips – was made in decades that previously had taken centuries.

The 30-year period (1914–45) between the end of the first, and beginning of the second, rounds of globalisation was disrupted by two world wars and an unstable 20-year interregnum. The second round of globalisation had its hesitant origins in an era of post war recovery, adjustment and decolonization (1945-1970) that again changed the economic structure of the world and the trajectory of the global economy. The revival of cross-border trade across the Atlantic and Pacific, along with massive investment for post-war reconstruction financed by the US, played a major role in resurrecting IFS and galvanising it at a more frenetic pace than before. During this period (*i.e.*, 1914–70) New York replaced London as the world's pre-eminent IFC.

In both rounds the distinction between *domestic* and *overseas* financing for trade and investment became blurred in determining the content of IFS. And, in both rounds, the process of financial integration and globalization was driven by:

1. Financial innovation in instruments, services and risk management arrangements that spread instantaneously across borders (when it was permitted to) to meet the evolving needs of clients (savers and users of funds) in the real economy.
2. Different risk/return and portfolio diversification demands of global savers and investors.
3. The injection of information processing and communication technologies into massive-scale gathering, dissemination and processing of data. Ubiquitous access to low-cost information tended to undermine relationship-based banking and fuel the growth of arms-length securities markets, particularly when it came to large issuers of securities.

In many countries, imported capital financed domestic investment and vice-versa, as direct and portfolio investors (in an increasingly integrated global market) diversified their investment portfolios to manage/balance country and sector risk.

The second round of economic and financial globalization began with the US being the world's locomotive and sole provider of surplus investment capital for the global economy. While driven initially by the reconstruction needs of Europe, the USSR, and Japan, global economic recovery resulted in dispersing manufacturing capabilities (and consequently enhanced trade in goods) throughout the *developed* world. Second round globalization was boosted by new investment needs created by the decolonization of the *developing* world after 1950.

The US drove second round globalization single-handedly in 1945–70. But that role diminished rapidly with the collapse of Bretton Woods in 1971. The global monetary system that prevailed from 1945 to 1970 was designed by Harry Dexter White, John Maynard Keynes and others. It consisted of pegged exchange rates and closed capital accounts to support large amounts of public spending for reconstruction and social welfare without risking capital leakage from resource-starved economies. But that historically anomalous and unnatural confinement of capital lasted for just 25 years.

The primordial nature of unrestrained capital flows across borders (that national governments consider sacred, but 'capital' is oblivious to) was restored in the face of unsustainable global pressures. These arose from chronic global imbalances in savings, consumption, investment and trade. They were driven by the shifting geographies of production, the economic revival of Europe and Japan, and decolonisation. Between 1971–90 the Bretton Woods regime was replaced in all OECD economies by the new stable regime based on floating exchange rates and open capital accounts.

In the *developing* world, the role played by the US as the principal global creditor-cum-investor was supported by capital flows (official and private) from former imperial countries: *i.e.*, Britain, France and, to a lesser extent, Holland. They were catalyzed and augmented by multilateral institutions such as the IMF, World Bank and regional banks. Governments and official institutions have played a useful role in global finance; especially in times of crises. But that role has been dwarfed by private capital flows throughout the second half of the 20th century, except in 1982–90.

As happened through the 19th and early 20th centuries, financial products became more diversified. Plain vanilla finance ceded to more complex structures following the introduction of financial derivatives in the 1972–1981 period. IFS grew horizontally and vertically. Financial firms innovated imaginatively. IFS enabled rapid changes in a number of new technologies (*e.g.*, ICT, bio, nano, eco, to name a few) to be translated into equally rapid changes in products, services and markets served by entirely new companies. The PC was not invented till 1982. Cellular phones came on the scene in the 1990s.

IFS – vastly enhanced by ICT – enabled these changes to be transmitted globally and instantly with the management of a variety of attendant risks. In response, risk management techniques, instruments, products, services and risk-trading markets evolved rapidly. They became more sophisticated with the unbundling of risk, specialisation in risk-taking, and synthesis of risk management packages in a variety of different forms. IFS also financed the tides of geopolitical flux – both the conflicts that have taken place and the reconstruction that has followed in their aftermath.

The changes of the 19th and 20th centuries seem dramatic in retrospect; indeed almost unimaginable in the context of progress made over the previous millennium. But, the time-span for progress in the 21st century is becoming even more compressed in considering the speed with which new technologies keep emerging and shortening product/market life-cycles. Technological innovation is occurring on a log rather than linear scale. Financial innovation is struggling to keep pace.

Technological changes that took centuries before 1800 occurred in decades in the 19th and 20th centuries. But, just one year in the 21st century, is seeing changes that took five years or a decade in the 20th. Techno-economic and 'financial world' changes keep racing ahead unbridled. But the social, cultural, political and institutional changes needed to accompany them – and cope

with their consequences – are occurring too slowly. In the developed world these social and political changes are being made faster than in developing countries like India, where structures and institutions for policy-making and governance are adapting at a glacial pace. In the process, governance is becoming dysfunctional in coping with transformations in consumer expectations and behaviour (as well as in goods/services markets and industries) that are now occurring at 'warp-speed' in the real and financial worlds.

As with the first round of globalization, the propagation of new technologies (jet engines, transistors, computers, television and telecommunications) and relative real wage cost differentials (adjusted for productivity) are playing a significant role in accelerating globalization in its second avatar. In the first round, cross-border capital movements were free. The world was financially more integrated, albeit informally, because of the absence of capital controls. But, the early stages of the second phase of globalization (*i.e.*, 1945–70) saw economies being heavily regulated and financially segregated under the Bretton Woods regime monitored by the newly established International Monetary Fund (IMF). Global financial integration began to catch up in earnest with the breakdown of Bretton Woods and a reversion to freedom of money and capital flows.

5. The 'take-off' of second round globalisation after 1980

Since 1980, the nature and direction of global capital flows, and the continued geographical dispersion of production, have changed significantly; with aligned changes in the nature and direction of IFS. From being the world's largest creditor, the US has become the world's largest debtor in just two decades. In 1980, the world owed the US almost US$ 1 trillion. By 2000, the US owed the world the same amount. By 2006, it owed the world nearly US$ 3 trillion. The US' debt to external creditors (mainly Asia and OPEC), denominated in USD, is growing at an annual rate of US$ 700 billion. This astonishing reversal of global capital flows now supports the US as the world's consumer of last resort. That role is unsustainable for much longer; especially if the global distortions now being exacerbated by chronic imbalances in savings, consumption and investment across the world's economies, are to be rectified in an orderly manner over time: *i.e.*, without worldwide disruption and a damaging loss of confidence in the value of the USD as a reserve currency.

As the tides of global finance change, so do the fortunes of IFCs. Until 1914, London was the world's premier IFC. After the First World War, New York – as the IFC of the only capital-surplus country in the world at the time – eclipsed London. It remained ahead for nearly nine decades from 1918–2006. New York lost its primacy again to London just this year. London began recovering its position as an IFC in the late 1960s and 1970s when misguided financial regulation in the US – *i.e.*, the infamous Regulations K and Q – resulted in the surplus dollars of American MNCs in Europe (from profits, dividends, and repayments of intra-corporate loans by subsidiaries) being retained in Europe for global reinvestment instead of being repatriated to the US where they would have been taxed exorbitantly.

That resulted in the creation and growth of the Eurodollar market with its centre of gravity in London where the authorities seized the initiative with a 'light touch' approach to financial market regulation. Financial regulation in the UK has been continuously refined ever since to maintain London's competitive edge. Macroeconomic policy in the UK, which went through a distressing period including one IMF program and one speculative attack on the GBP, has been put on an even keel through a mix of fiscal rules and the Bank of England reforms. These factors have been the key to London's re-emergence as the world's premier GFC in 2006.

The Eurodollar market exploded in the 1970s when the first round of cartelised oil price increases resulted in petrodollar surpluses being accumulated by oil-exporting countries. Their domestic

economies were incapable of absorbing such a sudden, large increase in the volume of resources available. They were recycled around the world – mainly through London and New York – by banks with global branch networks and established correspondent relationships. The Eurodollar market has since diversified into a multi-currency Euro-market that is global in nature. It establishes the benchmark for interest rates in all commonly traded currencies. It has been mimicked in Singapore by the Asian dollar market although that market is yet a pale reflection of its Euro-counterpart.

The second round of globalisation has entered a new phase in the 21st century. The world's centre of economic gravity has shifted to Asia. It is possible, even likely, that – with greater market-driven integration of Asian economies – the Asian dollar (or multicurrency) market may equal or exceed the present size of Eurocurrency markets within the next two or three decades. That depends on whether Asian bond markets develop in the same way, by taking a lead from Japan.

For that to happen, wide and deep markets will need to be created for currency trading in Asia and for a wide range of derivatives (for currencies, interest rates and commodities) in the more adroitly regulated Asian GFCs like Singapore and, hopefully, Mumbai. The growth of an Asian multi-currency market will have major implications for the internationalisation of the INR as a world currency and perhaps even for the emergence of common currencies for two or three Asian sub-regions.

6. Classification of IFCs

Financial centres that cater to customers outside their own jurisdiction are referred to as *international* (IFCs) or *regional* (RFCs) or *offshore* (OFCs). These three adjectives are often (but wrongly) used synonymously in the literature on IFCs. The three types IFCs they identify are difficult to define in a clear-cut, mutually exclusive, fashion. But they are quite distinct. All these centres are '*international*' in the sense that they deal with the flow of finance and financial products/services across borders. But that does not differentiate them sufficiently in terms of their scope.

We categorise IFCs in this report as: (a) **Global (GFCs)**; *i.e.*, those that genuinely serve clients from all over the world in the provision of the widest possible array of IFS; (b) **Regional (RFCs)** that serve their regional rather than simply their national economies (see below) – examples of such RFCs would be Dubai or Hong Kong; (c) **International** non-global and non-regional **IFCs** like Paris, Frankfurt, Tokyo and Sydney that provide a wide range of IFS but cater mainly to the needs of their national economies rather than their regions or the world – one might be tempted to call them *national* IFCs although that term is awkward because its two defining adjectives are contradictory; and (d) **Offshore (OFCs)** that are primarily tax havens for wealth management and global tax management rather than providing the fully array of IFS.

6.1. Global financial centres

Global Financial Centres (GFCs) such as London, New York, and Singapore are full-service centres. They offer a complete range of markets, products and services to clients worldwide, along with advanced settlement and payments systems. All three support large hinterlands whether national (*i.e.*, New York) or regional (*e.g.*, London and Singapore). All have deep and liquid *national* financial markets. Their sources and users of funds are global and diverse. Their legal/regulatory frameworks are robust enough to safeguard the integrity of all principal-agent relationships and supervisory functions. GFCs generally borrow short from residents and non-residents and lend long mainly to non-residents. In terms of assets and trading volumes, London is the premier GFC, followed by New York. The key difference is that the proportion of international to domestic business is much greater in London.

The most recent entrant to the GFC club is, arguably, Singapore. When its financial services sector was confronted by the deregulation of Tokyo's markets in the mid-1980s, and when Hong Kong's future

was rendered uncertain by the Anglo-Sino accord of 1981, the Singapore government responded by adopting a strategy aimed at creating a niche for Singapore in Asian and global IFS markets. It imported the best expertise, enhanced IFS support services, and adopted globally competitive tax and regulatory regimes. The success of these policies was reflected in global firms transferring their Asian regional financial operations from Tokyo and Hong Kong to Singapore through the 1990s. Singapore also looked west and took steps to encourage the emergence of a non-deliverable forwards market on the INR. It is now actively gearing its IFS industry to capture a larger market share of Indian IFS business.

6.2. Regional financial centres

The phrase ***regional financial centre*** causes some confusion because it is commonly used in two different senses: (a) when a particular IFC actually serves not just its national economy but its surrounding neighbourhood region – it is genuinely a RFC – and probably derives more IFS business from its neighbourhood than from its own economy; and (b) while an IFC may be *regional* in the sense of being located in a particular region – it may not necessarily serve that region but be confined to serving its own economy instead. This report tries to avoid that confusion by accepting only the first definition and disregarding the second.

For example, Paris and Frankfurt are *European* IFCs. But they do not provide IFS for the EU to the extent London does. In the same way, Tokyo is an *Asian* IFC. But Singapore and Hong Kong serve more Asian economies with a wider range of IFS except for the global market for JPY denominated bonds, which Tokyo dominates. Paris, Frankfurt and Tokyo are not, in our definition, RFCs. They are more national than regional in orientation. RFCs differ from GFCs in that they have reasonably developed financial markets and infrastructure; but they are not as sophisticated, wide or deep as GFCs. They intermediate funds in and out of their region, but they have relatively small domestic economies (compared with their regions) and are not as globally competitive as GFCs. Regional centres include IFCs such as Hong Kong and Dubai.

London and Singapore are RFCs in a way that Frankfurt, Paris and Tokyo are not. New York also serves the North American and Latin American regions. But all three centres go well beyond serving their neighbourhoods to serving the world; so we classify them as GFCs. Paris and Frankfurt serve the IFS needs of the French and German economies. Paris also serves, to a limited extent, the Francophone world while Frankfurt is becoming an increasingly useful IFC to neighbouring Eastern European economies. But neither are RFCs, nor GFCs, as yet.

This digression was necessary because **HPEC was tasked to look into making Mumbai a 'regional financial centre'. But the Committee has deliberately chosen to avoid using that nomenclature because of its implications and connotations**.

Under present circumstances, it is difficult to see Mumbai becoming a RFC of choice for the South Asian region. India's immediate neighbours may, for geopolitical reasons, prefer to use Dubai or Singapore instead for their IFS needs. So, while Mumbai is located in South Asia, it is unlikely to become a South Asian RFC in the foreseeable future. Instead, the HPEC believes that it is more likely to leapfrog from emerging as an IFC that serves India, into becoming a GFC that serves the world, without serving its South Asian neighbourhood along the way. In that sense Mumbai's emergence as a GFC may be different from that of London, New York and Singapore which are all RFCs as well as GFCs. Whether Mumbai becomes a GFC depends on whether the preconditions necessary for it to play that role are met by the concerned authorities. The irony is that if South Asia's geopolitics are eventually ironed out, and reach an equilibrium that permits meaningful economic interaction, Mumbai may become an RFC *after* it has achieved GFC status.

6.3. Offshore financial centres

OFCs comprise a third category of IFC. They are smaller, and provide more limited specialist services in the areas of tax, transfer

Box 1.1: *Examples of Uses of Offshore Financial Centres (OFCs)*

Offshore banking licenses: A multinational corporation sets up an offshore bank to handle its foreign exchange operations or to facilitate financing an international joint venture. An onshore bank establishes a wholly owned subsidiary in an OFC to provide offshore fund administration services (*e.g.*, integrated global custody, fund accounting, fund administration, and transfer agent services). The owner of a regulated onshore bank establishes a sister parallel bank in an OFC. The attractions of the OFC may include no capital tax, no withholding tax on dividends or interest, no tax on transfers, no corporation tax, no capital gains tax, no exchange controls, light regulation and supervision, less stringent reporting requirements, and less stringent trading restrictions.

Offshore corporations or international business corporations (IBCs): are limited liability vehicles registered in an OFC. They may be used to own and operate businesses, issue shares, bonds, or raise capital in other ways. They can be used to create complex financial structures. In many OFCs, the costs of setting up IBCs are minimal. They are generally exempt from all taxes and, for that reason, are a popular vehicle for managing investment funds.

Insurance companies: A commercial corporation establishes a captive insurance company in an OFC to manage risk and minimize taxes. An onshore insurance company establishes a subsidiary in an OFC to reinsure certain risks underwritten by the parent and reduce overall reserve and capital requirements. An onshore reinsurance company incorporates a subsidiary in an OFC to reinsure catastrophic risks. The attractions of an OFC in these circumstances include favourable income/withholding/capital tax regime and low or weakly enforced actuarial reserve requirements and capital standards.

Special purpose vehicles: One of the most rapidly growing activities in OFCs is the use of special purpose vehicles (SPV) to avail of a more favourable tax environment. An onshore corporation establishes an IBC in an offshore centre to engage in a specific activity. Issuance of asset-backed securities is the most frequently cited activity of SPVs. The onshore corporation may assign a set of assets to the offshore SPV (*e.g.*,, a portfolio of mortgages, loans credit card receivables). The SPV then offers a variety of securities to investors based on the underlying assets. The SPV, and hence the onshore parent, benefit from the favourable tax treatment in the OFC.

Tax planning: Wealthy individuals make use of favourable tax environments in, and tax treaties with, OFCs, often involving offshore companies, trusts, and foundations. There is a range of schemes that, while legally defensible, rely on complexity and ambiguity, often involving types of trusts not available in the client's country of residence. Multinational companies route activities through low tax OFCs to minimize their total tax bill through transfer pricing.

Tax evasion and money laundering: Individuals and enterprises rely on banking secrecy to avoid declaring assets and income to the relevant tax authorities. Those moving money gained from illegal transaction also seek maximum secrecy from tax and criminal investigation.

Asset management and protection: Wealthy individuals and enterprises in countries with weak economies and fragile banking systems keep assets overseas to protect them against the collapse of domestic currencies and banks, and outside the reach of existing or potential exchange controls. If these individuals seek confidentiality, then an account in an OFC is often the vehicle of choice.

Source: Financial Stability Forum's Working Group on Offshore Financial Centres Report (April 2000).

pricing, wealth management and private banking. Offshore finance is, at its simplest, the provision of financial services by banks and other agents to non-residents. These services include borrowing money from non-residents and lending to non-residents. This can take the form of lending to corporates and other financial institutions, funded by liabilities to offices of the lending bank elsewhere, or to market participants. It can also take the form of the taking of deposits from individuals and investing them elsewhere.

OFCs are typically found in the island economies of the North Atlantic, Caribbean, Indian and Pacific Oceans as well as in a few exotic European jurisdictions (*e.g.*, Andorra, Monaco, Lichtenstein and of course Switzerland). They range from large and well-established private banking centres like Switzerland – that provide specialist and skilled wealth and asset management activities, attractive to major financial institutions – to smaller, more lightly regulated centres that provide services to high-net worth individuals and small companies or trusts. They are almost entirely tax driven. They have limited resources to support financial intermediation. Many of the financial institutions registered in OFCs have little or no physical presence beyond a nameplate; although that is not the case for all OFCs. They are mainly providers of corporate and accounting services for 'passively managed' offshore accounts.

7. Why did Tokyo and Frankfurt not emerge as credible GFCs?

In considering the prospects for Mumbai as an IFC, and later as a GFC, it is instructive to examine why Frankfurt and Tokyo did not become successful GFCs? Tokyo is located in the world's second largest economy, measured in nominal USD. Frankfurt was located in the world's third largest national

economy (till China overtook it in 2005). It is at the centre of the world's largest regional economy – the EU. So why did these two centres not become GFCs despite their hinterlands while London and Singapore did?

One explanation lies in historical IFS demand from a large hinterland (home or regional) capital market that is *more sophisticated*, *better regulated* and more *sensibly taxed*, than elsewhere. This allows financial firms to diversify and exploit economies of scale to become globally competitive while being able to offer services that are not over-taxed. It explains London's and New York's success as GFCs because their financial firms (mainly investment banks and asset managers) developed by serving the largest, most sophisticated and most demanding capital markets in the world.

It also explains why Tokyo (with its huge but unsophisticated and tightly regulated domestic market) and Frankfurt (with its heavily taxed home market) have not succeeded in emulating them. Both Frankfurt and Tokyo are centres in economies with more traditional, rigid *bank-dominated* rather than *capital market dominated* financial systems; resulting in their being relatively uncompetitive. Their banks have not developed the same institutional capabilities for inducing financial innovation as more capital-market institutions in the US and UK have.

Tokyo's example is instructive for Mumbai. Tokyo possessed many of the attributes needed to rise to global prominence. But it was unable to capitalize on them. Powered by Japan's economic strength and external surpluses, Tokyo achieved GFC status in the late 1980s, when the top global investment banks and brokerages headquartered their Asian operations there. Indeed, the global capital market could not ignore Japan's enormous surplus assets in public and private savings. Nor could the world go anywhere else to issue bonds or raise funds denominated in JPY.

The bursting of the real estate bubble, and Japan's economic decline since 1990, ended Tokyo's rise. The city lost business to competing centres. But its role as a GFC was circumscribed even without the crisis. Barriers to competition and lack of openness restricted its potential. Although Japan deregulated its financial system, as the UK and USA did in the 1970s and 1980s, it left residual controls in place. Its regulatory mindset did not change. Japan's financial markets and institutions were sharply segmented and segregated. New financial products had to be approved by the MoF, which banned instruments that were commonplace elsewhere, such as OTC equity options. Banks were not allowed to fail, however weak.

Japan's Big Bang reform program in the mid-1990s to deregulate the financial system had a positive effect. A collapse in domestic prices and the value of the JPY made Japanese firms and real estate attractive targets for foreign investors. More of Japan's assets and business came under international management. However, its reforms did not go far enough. Tokyo still lacks the right combination of human and market resources for producing and exporting sophisticated financial services.

Tokyo functions as a large financial plantation, producing a commodity – money – in huge amounts. But it lets London and New York process that commodity and add value to it. Thus, while Tokyo has many of the ingredients needed for a GFC, it has not unfettered its institutions nor deregulated its financial system properly. It has protected its banks at the expense of its capital markets. It has not attracted foreign institutions, in a way that encourages more competition and financial innovation. Equally importantly, Tokyo does not use English as its *lingua franca*. It has a mono-cultural environment that inhibits it from becoming a genuinely global city. But Japan is reviving again and may learn from its mistakes. For that reason it would be premature to dismiss the prospect that Tokyo may yet emerge as a GFC although Japan's outlook would need to change dramatically for that to happen.

Frankfurt, for different reasons, also does not pose a challenge to London and New York. Initially it was thought that London would be eclipsed by Frankfurt as Europe's GFC because Britain did not adopt

Box 1.2: *How London lost the German interest rate futures market*

The German bond market is one of the world's most liquid and diversified capital markets. Trading on the "Bund futures" began at London International Financial Futures Exchange (LIFFE) in September 1988. It was a futures contract based on notional German Government bond with a 4% coupon and a maturity between 8.5 and 10.5 years. By 1990, the Bund futures contract accounted for almost one third of the total volume on LIFFE. Trading at LIFFE was then carried out by open outcry. Bund futures trading was also initiated at Deutsche Terminborse (DTB) at Frankfurt in Spring 1990, but this market failed to gain liquidity; LIFFE remained the dominant exchange.

In March 1996, DTB provided screen-based trading in London, competing against the open outcry trading at LIFFE. At the time, LIFFE continued to insist that pre-computer trading mechanisms were superior.

In early 1997, the Eurex futures and options exchange was created by a merger of Germany's DTB and the Swiss Options and Financial Futures Exchange. In March 1997, the US CFTC gave Eurex permissions to place trading terminals in the US. By October 1997, 10 firms in the US had terminals, and accounted for 18% of Eurex Bund futures volume. In August 1997, Eurex extended trading hours to match those of LIFFE. In September 1997, Eurex announced that until the end of 1997, fees on Bund futures trading on Eurex would be zero. In January 1998, Eurex introduced a new pricing structure which effectively set the marginal cost of trading to zero for medium and large traders.

From January 1998 onwards, LIFFE started losing market share. Even though the impact cost on LIFFE was at first superior, the lower charges at Eurex were big enough to sway some of the order flow to shift from LIFFE to Eurex. The trade processing efficiencies on Eurex were sufficiently large to overcome LIFFE's initial liquidity advantage. Once this started happening, the order flow started shifting and impact cost on Eurex started improving.

In early 1997, 65% of Bund futures trading took place on LIFFE. By the end of 1997, market share was roughly 50–50. Over the next 21 months, market share was decisively lost by LIFFE. By late 1998, the 10-year Bund futures contract traded on the Eurex was the third most actively traded derivative in the world, after Treasury bond futures on the CBOT and Eurodollar futures on the Chicago Mercantile Exchange. In 1999, the Eurex Bund futures contract became the biggest contract in the world.

LIFFE was stung by this loss of a lucrative contract, and abandoned manual trading. But by this time, merely matching the electronic system at Eurex was not enough to bring the liquidity back to LIFFE. From 1972 onwards, the financial community had engaged in a debate about the merits of electronic trading as opposed to trading floors or telephone calls. The Eurex versus LIFFE story on the Bund futures in 1998 marked the end of this debate.

The loss of the Bund futures contract set off substantial soul searching in the UK about the failures of LIFFE and of public policy which led to this debacle. The loss of this contract led to a substantial decline in revenues of UK finance. These events formed the backdrop and helped provide impetus for the major reforms to the Bank of England and the FSA in 1998.

the Euro. The presence of the European Central Bank (ECB) was a significant development for Frankfurt. It bolstered the city's international reputation and enhanced its importance as a financial centre. Frankfurt profited from German financial market reforms as well as European integration; and especially from the accession of contiguous Eastern European countries formerly in the ambit of the Soviet bloc. In the future it is expected to be a bridgehead to Russia, the rest of Europe and Turkey. However, Frankfurt lags behind London and New York in terms of most GFC criteria – regulation, taxation, asset management expertise, securities trading, and banking. Like Tokyo its language is not English. Nor is it a global city on the same scale as the other GFCs. London has a great edge because of its established global networks and historical interdependencies with the rest of the world.

The 'decentralization' of Germany (into *lander* or states) has also worked to the disadvantage of Frankfurt as an IFC. Not all German banks are headquartered in Frankfurt. Non-German banks in the EU have a larger presence in London than in Frankfurt. Focused IFS activities at one centralized location are important for the development of a GFC. Businesses that are clustered in a confined geography gain from one another by deriving external economies of scale. By crowding together, they create large, liquid markets that drive down trading costs and reduce risks by allowing large deals to be handled. Frankfurt has not benefited from a process of national consolidation for providing IFS. It could, possibly, head a secondary network of smaller European IFCs.

8. The Race to establish more IFCs around the world

Since 1970, the resurgence of the European, Japanese and East Asian economies and the revival of petrodollar surpluses has resulted in a plethora of IFCs (of some form or other) blossoming in other major (but not all global) cities including the following:

* San Francisco, Los Angeles, Chicago, Philadelphia, Boston, and Miami in the US
* Santiago, Sao Paulo, Buenos Aires, and

Montevideo in Latin America

* A large number of islands in the Caribbean (*e.g.*, The Bahamas, Caymans, Barbados *etc.*.)
* Amsterdam, Frankfurt, Luxembourg, Paris and Milan in Europe
* Tokyo, Hong Kong, Shanghai, Labuan, Jakarta, Bangkok, Seoul, and Taipei in East Asia
* Sydney in the Antipodes
* Bahrain, Dubai, Kuwait, Riyadh, Doha and Muscat in the Persian Gulf
* Johannesburg, Gaborone, Mauritius and the Seychelles in sub-Saharan Africa

The race amongst cities to establish themselves as IFCs has intensified. Cities in emerging economies look upon having an IFC as a relatively low-opportunity-cost initiative worthy of government support. The apparent ease of establishing an IFC and the promise of high value-addition have prompted many countries to create IFCs to increase the contribution of their financial services sectors to output, employment and exports.

In the Middle East, several governments have been competing to establish RFCs. At present Bahrain, Abu Dhabi, Dubai, Qatar and Muscat are all vying for that stature in the Gulf. The earliest entrant, Bahrain, went for an IFC because it was faced with stagnation of its offshore-banking business and felt pressed to introduce a series of reforms to attract more investment. The government of Abu Dhabi – anxious to diversify its economy beyond oil and to create jobs in the private sector – declared in 2005 that it planned to develop an IFC. Incentives were offered, such as a zero company tax, full repatriation of all profits and capital, free import of labour, and no forced local partnership requirements. Banks were exempt from reserve requirements.

Dubai, which has become the region's busiest services hub, may yet become the most successful RFC in the Gulf. The emirate has successfully transformed itself from a small-scale oil producer into a regional services hub in just 20 years. Its free zone has achieved a critical mass of importers, traders and light manufacturers. DIFC came into existence in September 2004, offering a wide range of services, and generous fiscal incentives and other benefits. It has strong commercial connections internationally and with India, the upcoming giant in Dubai's near neighbourhood. Indeed, DIFC is likely to be a competitor for some IFS to an IFC in Mumbai.

With the Asia-Pacific region registering high rates of economic growth, its economies deregulated their financial sectors during the 1980s and attracted substantial inflows of foreign capital in search of investment opportunities. As a result, financial markets in many of these countries expanded rapidly. Apart from well-established IFCs in the region – Hong Kong, Singapore, and Tokyo – a successful financial reform programme during the 1980s led to the emergence of Sydney as a potential rival.

The perceived benefits of an IFC have attracted other Asian countries such as: Korea, Indonesia, Taiwan, Thailand, Malaysia, and the People's Republic of China (PRC) to launch new initiatives for capturing IFS business, at the beginning of the 1990s. The South Korean government announced its Northeast Asian Financial Hub in Seoul and, in July 2005, published a detailed action plan aimed at achieving this goal.

There has also been an explosion in the number of small enclave tax-haven OFCs around the world providing more limited services. But these are not germane in the context of the kind of IFC that India must develop now.

9. Implications for India and need for Mumbai to emerge as an IFC

A retrospective look at the evolution of IFS from 1945 onwards, and particularly from 1971 onwards, suggests three major differences between the first and second rounds of globalisation where international finance is concerned:

1. Global finance has been transformed by the combination of better data, com-

puters, communications, and analytical financial economics; which has resulted in improved financial risk management. These factors have generated a world-wide shift away from bank-dominated finance to securities markets.

2. The supposed stability of the gold standard that shaped the first round of globalization has been absent after 1971. The abandonment of that anchor was disconcerting at first for central bankers and financial markets. Now the world is coming to recognize that having a gold standard may be anachronistic if not antediluvian. The modern consensus holds that the right anchor for fiat money is the CPI-basket, *i.e.*, that monetary policy should be tied down by inflation targeting. After centuries of exploration, it appears that we now know the correct technique for creating fiat money. Floating exchange rates, open capital accounts, and inflation targeting monetary policy which stabilises the local business cycle are now the reality pervading and shaping international economics and finance in the second globalization. Every developing country faces the task of mastering the institutional dance that is required to pull off this combination.
3. IFS production is now dispersed across a number of GFCs, RFCs, IFCs and OFCs spread across the globe. But it is still concentrated mostly in the developed world. This was unlike the first globalization, where London was clearly the dominant IFC. There is a striking difference between financial services production, and that of most other goods and services, in that the bulk of global financial services production takes place at a few IFCs in what have come to be known as *global cities*.

What can usefully be deduced from this brief history of IFCs, in the context of India rapidly becoming one of the world's most significant economies post-1991? How should India cope as a third and more intense phase of globalization emerges with India and China playing key roles? Simply put, the main deductions are these:

* Given its present role and size in the world economy India is becoming a major user of IFS. The locus of the world economy is increasingly shifting to Asia, the home of Japan, China, India and ASEAN. Soon, trans-Himalayan and trans-Malaccan trade will rival trans-Atlantic and trans-Pacific trade in size and global importance.
* As that happens, India's needs (as well as those of its Asian trading partners, most importantly China) for IFS will grow exponentially as global trade and investment (and intra-Asian trade and investment) account for a larger proportion of its economy.
* India cannot afford to remain a *taker* of IFS from the global market indefinitely as its needs for such services grow. Like the US, the EU and Japan, India must develop its own IFS-provision capability as an essential concomitant of its growing role in the world economy. So must China, although China is already able to rely on a world-class financial centre in Hong Kong, and to a lesser extent by Singapore (which serves the regional ASEAN economy even more).
* India has emerged in the world as a competitive, reliable provider of IT services. The provision of IFS on a competitive basis to the global economy is highly dependent on IT capability and an endowment of human capital that is numerate, adept mathematically and entrepreneurially inclined. Given the critical importance of those ingredients, IFS provision is an arena in which India has natural advantages for competing successfully. It would be making a major error in not developing its policy-making, operational and regulatory capacities to compete globally in the IFS arena as quickly as possible.
* India's aspiring to enter the market for globalised financial services provision is synonymous with India aspiring to have an IFC in Mumbai, that connects the Indian financial system with the global financial system. This is in contrast with conventional goods and services,

where production is dispersed across a very large number of locations across the world; financial services production requires clustering.

But what precisely is meant by developing IFS-provision capability via an IFC? An IFC provides individuals, institutions of various types (including most importantly productive commercial corporations) and governments (sovereign and sub-sovereign) with a wide range of financial products and services through an array of appropriate institutions and markets that are regulated in consonance with recognized international best practices.

These financial products and services include: banking, insurance, short and long-term asset management, private wealth management, corporate treasury management, and, most importantly, a well structured and fully developed capital market (with its array of institutional appurtenances in terms of brokers, dealers, exchanges and regulators) for debt, equities, commodities as well as risk management through derivatives. To become a player and compete in the IFC space, India will need to build requisite infrastructure (institutional and physical) and harness the skills and expertise needed to launch these products and services. Mumbai's prominence as the capital of Indian finance, the existence of exchange infrastructure, and its supply of skilled manpower, makes it a natural contender as an IFC.

9.1. The SEZ model as an Alternative for an IFC in Mumbai

In discussions on creating an Indian IFC in Mumbai, its location in a Special Economic Zone (SEZ) in Navi Mumbai has been aggressively promoted by enthusiastic SEZ developers as the best, if not the only, alternative. In the Indian context, a SEZ is a sequestered or quarantined geographical area operating under a framework of economic laws and tax exemptions that are more liberal than the country's typical economic laws. The raison d'etre for establishing SEZs is to accelerate the inflow of private investment (domestic and foreign) into developing infrastructure more rapidly – and thus to galvanise further investment in productive activity (especially in encouraging the faster and larger exports of goods and services) – than would otherwise be the case.

The argument for having SEZs in India is based on the claim that it is too difficult for various levels of government to propose and implement the policy changes needed to make that happen on an India-wide basis; because of the diversity of views in its plural and democratic system.

Thus the SEZ approach is a strategy of '*change management by exception*' rather than a strategy of managing change through country-wide inclusion. Opponents of this 'change management by privileged exception' strategy argue that the downsides of a SEZ strategy outweigh any benefits for the following reasons:

* *First*, SEZs will worsen rather than ameliorate the egregious degree of 'development concentration' in new privately governed urban areas.
* *Second*, SEZs may create enclaves owned and run by India's major corporations – that are self-governing, autonomous and exempt from normal rules. Thus SEZs will create immense scope for regulatory and legal arbitrage that may prove quite difficult to manage.
* *Third*, SEZs will result in the fragmented, incoherent and sub-optimal development of infrastructure rather than having it develop it on a more optimal area wide basis for capturing essential economies of scale.
* *Fourth*, SEZs open up opportunities for malfeasance through property development that has become the new channel for rent-seeking and realising speculative capital gains. At the same time, such developments will create inequities for small landholders compelled to yield land for SEZ development.
* *Fifth*, SEZs are likely to result in a net loss to the exchequer that the inflow of incremental investment – and any indirect public revenue benefits that may accrue therefore – will not offset to any reasonable degree.

SEZs have been established in several countries, including the People's Republic of China, India, Iran, Jordan, Poland, Kazakhstan, the Philippines and Russia. North Korea has attempted this to a degree, but failed. But, these SEZs have generally been large in size, limited in scope, and less fragmented than the SEZs approved in India. Also, they have been mainly restricted to the bonded production of *goods* for export with the movement of inputs and outputs from SEZ boundaries being tightly controlled to prevent leakage and arbitrage opportunities vis-à-vis the local economy. Many SEZs in India meet those stringent tests. But many do not.

Proponents of the SEZ approach to IFS provision argue that the fastest way to make progress in establishing an IFC is to suspend Indian capital controls and repressive financial policy for a zone of about 20-50 square kilometres. That special financial zone would, for all intents and purposes, be cut off from the rest of India for the SEZ strategy to be compatible with continued capital controls and financial repression in the domestic financial system. The argument is also made that a SEZ would have world class urban infrastructure and thus bypass the intractable urban infrastructure deficit and the enormous governance problems of Mumbai.

But, the difficulties with this approach are threefold:

1. A key strength underlying an Indian attempt to establish an IFC is the economies of scale obtained by virtue of having a trillion-dollar GDP as the home market. If an enclave approach is used, India's hinterland advantage is lost. The enclave would be required to restrict itself to dealing only with non-resident clients and transacting in all convertible currencies but not in the INR.
2. It is easy to think of a SEZ where capital controls are absent – this requires stroke of the pen reforms that remove hindrances faced by firms and individuals. But it is harder to have a SEZ where financial repression is absent. An IFC located in an SEZ would still need to have its operations and transactions governed by a world-class framework of financial sector policy formulation and regulation. It cannot operate in a regulatory vacuum. A SEZ that is not regulated by internationally acceptable regulators will not be respected by customers of IFS globally and will fail to attract business. If an effort has to be made to build world class financial sector competencies, and regulatory capacity for a SEZ, such an effort would better be directed to India as a whole rather than just to the SEZ.
3. A substantial additional inspector *raj* will inevitably need to be created, surrounding the SEZ, to avoid leakages of financial products and services between the SEZ and the 'Indian mainland'. When a free trade zone like SEEPZ was created, inspectors were used to ensure that physical goods did not flow between SEEPZ and India. Preventing flows of capital and international financial services is more difficult. It will require a correspondingly onerous inspector *raj* that will vitiate having an IFC in a SEZ in the first place.

In the Committee's view the disadvantages of having an IFC in Mumbai located in a SEZ outweigh any conceivable advantages. Rather than facilitate start-up, a SEZ based IFC will compromise development of the kind of IFC that India needs – *i.e.*, one that is rooted in its own financial system. It will create opportunities for arbitrage between dual financial regimes. It will complicate the process of financial regulatory liberalisation and have a counter-productive effect in delaying changes in the regulatory system. It may involve external regulatory authorities wishing to intervene in regulating IFS offered via a SEZ, thus compromising Indian regulatory sovereignty. It will delay the swifter removal of capital controls throughout the Indian economy. It will result in an IFC not yielding public revenues from the outset and obtaining fiscal protection that it does not need. An SEZ-based IFC would be an artifice that would detract from global credibility. It may facilitate more BPO/KPO in finance; but it will pre-

vent or delay the provision of broad-based IFS.

A SEZ-based IFC, that sought to sidestep India's capital controls and financial regulation would, in the opinion of the HPEC, not be the right path for India to take in establishing an IFC in Mumbai. The right way would be to make Mumbai an IFC and a global city by making the urgent adjustments that are needed to: (a) *financial* policies, structures, institutions, markets and to financial regulatory and governance regimes; as well as to (b) Mumbai's urban infrastructure and governance.

Interestingly enough, there may be some symbiosis between: (a) a narrower notion of a SEZ located near Mumbai; and (b) the initiative to make Mumbai an IFC.

If good quality urban infrastructure develops in a SEZ close to Mumbai, and if – quite separately – Mumbai has made some progress towards establishing a credible IFC, then many financial firms (and their employees) might choose, of their own accord, to locate in an SEZ with superior facilities. In this sense, a SEZ orientated towards improving the quality of urban infrastructure in the proximity of Mumbai – without requiring as a precondition that an IFC must be located within it from the outset – may turn out to complement the goal of creating an IFC in Mumbai.

Financial firms located in Mumbai for the purpose of providing IFS may decide voluntarily to relocate to the SEZ simply for reasons of convenience in enjoying better quality infrastructure rather than to escape draconian regulation. That would mean that the regulatory regime that applied to them in Mumbai would apply to them in the SEZ as well.

21st Century IFS provided by IFCs

chapter 2

The 21st century is witnessing the world's transformation into a global village. This is being caused by: (a) an inexorable process of ***internationalization*** – that is linking countries through trade, investment and cultural exchange; and (b) equally inexorable ***deregulation.*** Both forces were unleashed by regulatory relaxation in the 1980s. Their impact was amplified in the 1990s with the rediscovery and acceptance of market economics following the collapse of socialism as an alternative. More countries are shifting to market economics from socialist paradigms to drive their development models. Their governments, firms, and civil societies – which were inward-looking and myopic – have revised their views about their respective roles. They have become long-sighted, outward-orientated and global in outlook.

Markets – for goods and services, finance, factors of production, and knowledge – are no longer confined to national geographies. Products and services are no longer designed and made for domestic and export customers separately with different quality standards for each. Resources are no longer restricted to those available domestically. Investments are no longer limited to domestic projects. In other words, economic boundaries have become porous. Among other things, this new world – in which economics and finance are no longer constrained by geography – is making new demands on financial firms, services, systems and markets. New financial products/services are being demanded from traditional financial firms to meet the needs of clients who have suddenly emerged as global players.

A modern financial system includes banking, insurance, asset management, securities dealing, derivatives and risk management. An IFC provides individuals, corporations and governments around the world with a range of financial products and services in this globalised world. The sections of this chapter look at some key IFS products/services provided by IFCs. While London and New York provide all of them, other IFCs around the world provide some combination of them.

1. Fund Raising in IFCs: What is involved? Who does it and how?

An IFC provides a platform for entities to raise large amounts of funds on a *global* rather than domestic scale. This includes: (a) debt and quasi-debt across all maturity and currency spectra; (b) equity and quasi-equity for private, public, multilateral and public-private entities; as well as (c) diverse risk-management appendages to primary fund-raising transactions. Such arrangements permit the risk exposure of the primary fund-raising entity (to currency, interest rate, credit, market, operational and political risks) to be contained within tolerable limits. The presence of large investment banks and global securities firms in an IFC facilitates access to a huge pool of global finance unconstrained by domestic boundaries.

As the example of London illustrates, this calls for dynamic, transparent and highly liquid capital and derivative markets with firm, principles-based yet flexible regulation that is unintrusive and does not involve micro-management.

It is often asserted that modern communications technologies have resulted in the 'death of distance'. It is therefore possible for geographically dispersed investors and issuers to interact without needing a geographically focused IFC. However, the empirical reality is that – even after large changes in technologies of communication –

Box 2.1: *The Range of Financial Service Providers called Banks*

Commercial banks: Take time and savings deposits and make loans to businesses and individuals

Savings banks: Attract only term savings deposits and make loans to individuals and families

Cooperative banks: Help farmers, ranchers, groups and consumers acquire goods and services

Mortgage banks: Provide mortgage loans on new or old homes and finance real estate projects

Community banks: Are smaller, locally focused commercial and savings banks

Money Centre banks: Are large commercial banks based in leading financial centres

Investment banks: Wholesale players that solve financing problems faced by customers by utilising capital markets

Merchant banks: Discount trade bills and supply both debt and equity capital to business

Wholesale banks: Are larger commercial banks serving corporations and governments

Retail banks: Are smaller banks serving primarily households and small businesses

Bankers' banks: Supply financial process services (*e.g.*, cheque clearing and security trading) to banks

Affiliated banks: Are wholly or partly owned by a holding company that is a financial conglomerate

Fringe banks: Offer payday and title loans, cash checks, operate as pawn shops or rent-to-own firms.

the most important aspects of fund raising still take place through face-to-face meetings in London, New York, or other IFCs. People still prefer to do primary 'front-office' business in their own daylight while outsourcing back-office functions to be performed elsewhere on a 24-hour basis. The primacy of IFCs in fund raising is unlikely to change in the foreseeable future.

Fund-raising for investment in an IFC is now invariably done through investment or universal banks and rarely through commercial banks. The fund-raising entity does not have to use an investment bank, but it usually does so because it is less costly than trying to sell securities directly to the public. The most common method of raising funds is by issuing and selling new securities, such as stocks or bonds of a wide variety of types. An investment bank usually helps in this process by providing its expertise and a global market base of customers to buy the securities.

Investment banks are not like commercial banks; although large global conglomerates (like Citigroup or HSBC) often house both activities under the same brand umbrella. Unlike commercial banks, investment banks do not generally attempt to attract small retail depositors through checking or savings accounts; nor do they make auto, home or personal loans. Generally, they do not deal at all with small individual retail depositors although some investment banks do attract high net worth clients by providing personal wealth management services of a different type and scale.

Whereas commercial banks generally raise resources at the retail (depositor) end, investment banks are wholesale intermediaries. They help businesses, governments, and a variety of other agencies to get bulk-financing from investors in capital markets through a variety of instruments and vehicles. By contrast commercial banks help users of funds to obtain financing by lending them money that the banks' own customers have deposited in savings, checking, money market and CD accounts. Investment banks connect users of money with a variety of sources of money on a bulk-basis, whereas commercial banks connect users of funds with their own retail and individual sources of deposits, though the vehicle of loans that might be syndicated with other commercial banks to spread risk.

A commercial bank usually takes the full credit risk on the loans it makes. Sometimes it lays all or part of that risk off through the purchase of market-traded credit derivatives. But that is rarely possible in bank-dominated financial systems; doing so requires sophisticated capital markets. An investment bank operating in capital markets rarely takes the credit risk of its clients on its own book except for a short period under an underwriting obligation (see Box 2.2). Thus, despite the word *bank* in their names, investment banks are securities issuing/buying firms that match users (usually corporates or governments) and providers (usually buyers of equities and bonds) of bulk funds in capital markets. When they are not operating in an IFC, their activities (*i.e.*, connecting users and sources of funds) are confined to domestic markets. But, in an IFC, national borders cease to matter in determining either the geographical origins of clients or the geographical residence of funds being tapped.

In capital-market dominated financial systems, entities that need funds can discuss a variety of options and possibilities with investment bankers. But in bank-dominated

Table 2.1: Markets for foreign equities (2005)

	Turnover ($bn)	% of global turnover	No. of Foreign cos. listed
London	2,496	43	554
NYSE	1,234	21	452
Switzerland	896	16	116
Nasdaq	591	10	332
Germany	165	3	116
Others	401	7	1,285
Total	**5,783**	**100**	**2,635**

Source: World Federation of Exchanges, LSE

Table 2.2: International Bond Markets (2005)

	Net issues ($bn)	% share
UK	361	19
Spain	211	11
US	199	11
Germany	157	8
France	132	7
Italy	89	5
Netherlands	84	5
Others	989	53
Total	**1,861**	**100**

Source: Bank of International Settlements

systems their choice is usually restricted to loans from commercial banks.

Tables 2.1 and 2.2 show the amount of equities and bonds issued in global capital markets in 2005. The bulk of the bond market is in domestic bonds issued by companies in their own country and currency. But the share of international bond issues in the total bond market has risen in recent years. The value of bonds issued worldwide totalled over $44 trillion at end-2005. Table 2.2 shows the percentage share by nationality of the bond issuer. International bonds, which include Eurobonds and foreign bonds, totalling $1,861 billion were issued in 2005. UK issuers had the largest share in 2005 with nearly a fifth of the total, followed by Spain and the US.

There is a natural synergy between global funds seeking investment opportunities (with a wide range of risk/return possibilities) and global seekers of funds. Their mutual interests converge in an IFC. Each induces network effects that feed off the other. It is not possible to conceive of one without the other. For that reason India does not have the luxury of prioritizing either one or the other of these two elements in sequencing the emergence of Mumbai as an IFC. Both have to be accommodated simultaneously. Another key facet that needs to be emphasised from a sequencing viewpoint is that efficient and cost-effective fund-raising in any IFC requires mature, deep and liquid financial markets in all segments at all levels; *i.e.*, it requires:

1. An efficient, liquid, large and globally connected, equity market that can support equity issuance by issuers not just from India but elsewhere,
2. A liquid and efficient bond market with a traded yield curve in the currency of the IFC that enables global corporate and sovereign bond issuance,
3. A large and liquid currency trading market,
4. Robust derivatives markets that permit laying off a variety of risks *i.e.*, including credit, interest rate, maturity and duration, currency, and political risk,
5. Efficient and globally open banking markets that minimize or eliminate the conflicts-of-interest that arise with state-ownership and domination of the banking system; and
6. Globally efficient *insurance* and *re-insurance* markets open to global players with all the necessary products and services available.

Global fund-raising is one of the most prominent revenue sources in every IFC, and a tangible goal that every IFC aspires for. However, this prominent activity requires an underlying infrastructure in the form of these markets. Hence, the development of public markets for securities, banking and insurance on an international scale is a *sine qua non* for global fund-raising capability. In other words, whether generally recognized or not, **the call for creating an IFC in Mumbai is a metaphor for (and synonymous with) deregulating, liberalising and globalising, all parts of the Indian financial system at a faster rate than is presently the case. Raising the issue of creating an IFC in Mumbai at this time, suggests that the need for more intensive deregulation and**

Box 2.2: *What Investment Banks do in Global Capital Markets*

Capital markets permit investment bankers to provide users of funds with greater flexibility (in terms of instrumentation, timing and risk management appurtenances) in: (a) accommodating how much money is required and when; (b) what type of security should be sold and to whom, in order to maximize efficiency and minimize costs of fund-raising; (c) what special features such securities might have depending on the credit rating and cash-flow circumstances of the entity concerned; (d) at what price it should be sold and when; and (e) how much the fund raising activity will cost.

To reduce its own uncertainty and risk, a user-of-funds may decide to go in for an underwriting agreement with its investment bank. Under this arrangement, called the *firm commitment*, the investment bank buys the new securities for an agreed price and resells the securities to the public at a mark-up, bearing all of the expenses associated with the sale. Usually, the investment bank becomes a broker-dealer or market-maker in the new security sold. Through underwriting, the issuer (user-of-funds) gets the funds on a guaranteed basis even if the investment bank does not succeed in selling all of the securities issued. Thus, the investment bank takes a calculated risk for a short period. But it can also profit significantly if the issue is greatly desired by investors, allowing the investment bank to charge a higher mark-up and book an immediate profit. Under stable market conditions knowledgeable investment banks are rarely trapped into having to hold underwritten securities for long. But sometimes market conditions can change suddenly in response to an unforeseeable shock. Investment banks can then be caught holding the bag for longer than they wanted thus tying up capital that could be used for other (higher-return) purposes.

Direct responsibilities in an underwriting include registering new securities with the concerned regulator, deciding the offer price, and forming/managing a syndicate to market the new securities. Often the investment bank pegs the price of a new issue by buying in the open market. Successful underwriting is about selecting the right issue, offering it at the right price, and selling it at the right time. The investment bank may have to lower the price of the new issue to below what it paid for it, thereby resulting in a loss. Furthermore, the initial customers who paid a higher price for the new issue will be disappointed that they paid a higher price, and the investment bank may lose these customers in a future offering.

Investment banking is a very competitive business in global capital markets and established IFCs. Every deal forms an input for future business possibilities for the banker both from the issuer and other companies.

Most agreements for the sale of new securities get underwritten. But when the issuer is perceived as risky, the investment bank may use a *best efforts* approach; *i.e.*, it undertakes to do its best to sell all of the new securities, but does not guarantee it. The issuer bears the risk that the investment bank may fail to sell all of the new issue, thereby reducing the amount of money that the company receives. Underwriters make money by selling the new securities at a mark-up from what they paid for it, known as the underwriting discount, or underwriting spread. The underwriting discount is set by bidding and negotiation, but is influenced by the size of the new issue, whether it is equities or bonds, and the perceived difficulty of selling the new issue. More speculative issues require a larger underwriting spread for the increased risk involved.

The liquidity risk taken in an underwriting transaction can be 'laid off' in the risk market using derivatives. Investment banks utilize sophisticated financial economics in quantifying their exposure. They establish a set of exchange-traded and OTC positions in derivatives markets (for credit, interest rate, and currency risks) through which the bulk of their risk is transferred to buyers of risk in the derivatives market. The residual risk is borne by investment banks against equity capital, and is required to earn a high rate of return. Hence, to the extent that risk-markets support laying-off through exposure hedging, the lower is the unhedged component of the risk, and thus the lower is the cost of capital for the unhedged portion.

The total flotation costs of bringing new issues to the capital market also includes legal, accounting, and other costs borne by the issuer in addition to the underwriting discount. Economies of scale result in flotation costs for small issues generally being a larger percentage of the total sale of new securities than for larger issues. They are also greater for equities than for bonds. The underwriting spread may vary from about 1% for investment-grade bonds to almost 25% for the stocks of small unknown companies. As additional compensation, the underwriting firm may get rights to buy additional securities at a specified price (pre-negotiated call options), or receive a membership on the board of directors of the issuing company. The underwriting firm frequently becomes a market maker in the new security, keeping an inventory and providing a firm bid and offer price for the new security to provide a secondary market, so that investors can buy or sell the new securities after primary sale. This ensures liquidity for investors and thus increases the value of the primary offering, since few investors would buy a new security if they couldn't sell it at will.

Sometimes investment banks form syndicates and enlist the help of other investment banks to sell securities. The 'lead' investment bank selects the members of the syndicate and determines how many shares each will get and manages the overall process. In addition, each member of the syndicate, including the originating investment bank may have selling groups, consisting of other investment bankers, dealers, and brokers that may also sell to investors. The main advantage of syndication is that it reduces risk by sharing it among the syndicate members, and each syndicate member and their selling groups have their own customers to whom they can sell the new issues.

liberalization of the financial system has been anticipated by India's policy-makers and regulators and that the IFC is an additional device to accelerate movement in that direction. An IFC will not be created quickly in Mumbai, nor will it

succeed, if action on further deregulation and liberalisation is not taken in real time.

2. Asset management and global portfolio diversification

Asset management is a large and important global industry in its own right. All types of asset managers are responsible for the management of trillions of dollars, euros, pounds and yen invested in a large variety of funds and vehicles. Many of the world's largest financial conglomerates are at least in part asset managers. And the bulk of global asset management (over 65%) is transacted through the world's GFCs. As a approximate estimate, the stock of globally managed assets (including non-financial assets such as real-estate) was believed to be about $125 trillion in 2005, or nearly thrice of world GDP.

At an average cost of asset management of about 1% of assets under management, global revenues from asset management are roughly $1 trillion per year, which makes it one of the world's largest industries given that world GDP is just over $45 trillion. Because of a legacy of financial suppression, India's share of global asset management – in terms of AUM, revenues, efficiency and cost-effectiveness – is infinitesimal and insignificant for an economy that is emerging as one of the world's largest, and that is likely to account for a rapidly increasing share in global portfolios. That situation is clearly unacceptable and needs to be rectified urgently.

Table 2.3 shows the sources of global financial assets under management in three visible categories – pensions, insurance and mutual funds – by end-2004. Assets of the global fund management industry increased for the second year running in 2004 to reach a record $49.4 trillion. This was up 6% on the previous year and 40% on 2002. Pension assets accounted for $18.8 trillion of funds in 2004, with a further $16.2 trillion invested in mutual funds and $14.5 trillion in insurance funds. Merrill Lynch estimates the value of private wealth at $30.8 trillion of which about a third was incorporated in other forms of conventional investment management. The US was the largest source of funds under management in 2004 with 49% of the world total. It was followed by Japan with 11% and the UK with 7.6%. The Asia-Pacific region has shown the strongest growth in recent years.

Box 2.3: *Global Asset Management*

Asset managers of various hues – *i.e.*, mutual funds, open or closed ended investment companies or trusts, public or private pension funds, insurance premium funds, and, increasingly, of highly mobile and flexible hedge and arbitrage funds – look for an array of investment choices at home and overseas, including equities, bonds, property, commodities and cash diversified in terms of geography, or sector of activity. A viable IFC must have the necessary market, institutional and regulatory infrastructure to attract asset management and global portfolio diversification services undertaken by a variety of national, regional and global asset managers. Very often, revenues from asset management are directly linked to market valuations, so in the event of a major fall in asset prices, revenues decline relative to costs.

Asset management includes a combination of front and back office functions. *Front-office* activities include *inter alia*: objective setting for targeted returns, risk and capital preservation, based on the future pay-out obligations of the funds being managed (*e.g.*, pensions); active marketing of funds to potential investors; continuous real-time global research into individual assets and asset classes across all sectors and geographies; in-depth financial analysis; asset selection; plan implementation; buy-sell trading/dealing/transacting; and continuous monitoring of investments to keep pace with domestic and global changes in financial and demographic environments and circumstances. *Back-office* functions (*i.e.*, tracking and recording of all buy/sell transactions, and minute-to-minute fund valuations, for thousands of different clients per institution) usually involve activities such as: payment and settlements for billions of daily transactions; ensuring increasingly complex national and global compliance for a variety of purposes; book-keeping and financial control; trade confirmations; fault correction and dispute resolution; continuous real-time internal auditing; and the preparation of a variety of internal and external reports (by day, week, month, quarter, year) for managers and clients.

3. Personal wealth management

The large and rapidly growing number of wealthy individuals around the world, with a net worth of more than US$ 1 million each, provides substantial opportunities for a wide range of firms and institutions that deliver professional wealth management (private banking) services to this community. High net-worth individuals (HNWIs) are globally mobile (*globile*) with several residences, tax domiciles, as well as revenues and expenditures, accruing in multiple jurisdictions. This activity is estimated to involve the management of trillions of dollars worth of personal assets. Some of it is double-counted in the asset management figures shown in the previous section.

Personal wealth management takes place in established IFCs but is skewed towards specialized IFCs offering special tax exemptions or advantages to non-residents in centres in Switzerland, Luxembourg, Monaco, Lichtenstein and the Channel Islands for the EU and Africa; Atlantic and Caribbean offshore centres for the US and Latin America; Bahrain, Dubai and Mauritius for the Middle East and South Asia, Singapore, Hong Kong and some Pacific Island offshore centres for East/North Asia. Merrill Lynch, Cap Gemini, and Ernst and Young's annual World Wealth Report 2005 estimated that the value of funds managed on behalf of 8.3 million high net worth individuals with over $1 million of investable assets was $30.8 trillion in 2004.

In its annual report Global Wealth 2005, Boston Consulting Group estimated that the total value of assets managed on behalf of all investors totalled $85.3 trillion in 2004. These figures, based on surveys of private bankers are probably understated as they probably do not include full disclosure of all private accounts held by: (a) politically prominent people (especially from developing countries and regions) who are reticent to have their holdings reported or disclosed; or (b) generated from illicit income flows in prohibited (but nevertheless large) industries involving drugs, arms and human trafficking and illegal gambling. Table 2.4 illustrates in broad indicative terms the size of the worldwide international private client market.

Overseas Indians (NRIs) are estimated to hold financial wealth (*i.e.*, apart from real estate, gold, art, *etc.*) of over $500 billion and total wealth of over $1 trillion. They are a natural beachhead as a customer base where an Indian PWM industry can get

Table 2.3: Global assets under management in three visible categories ($bn 2004)

	Pension funds	Insurance assets	Mutual funds	Total
US	11,090	4,968	8,107	24,165
Japan	3,108	2,058	400	5,566
UK	1,464	1,797	493	3,754
France	150	984	1,371	2,505
Germany	104	1,055	296	1,455
Netherlands	630	291	90	1,011
Switzerland	426	258	94	778
Others	1,788	3,064	5,301	10,153
Total	18,760	14,476	16,152	49,388

Source: IFSL estimates, City Business Series, April 2006

Box 2.4: *Private Banking and Personal Wealth Management*

Personal wealth managers (or private bankers) customize investment programs to meet specific client needs and provide an array of related investment services including securities, real-estate, art, jewellery, commodities (*i.e.*, precious metals or in commodities such as oil/gas, base metals *etc.*), vintage wines and collections of antiques, automobiles, stamps, photographs, *etc.*. Wealth management involves:

1. Developing an investment profile through in-depth client consultation in order to establish clear investment goals for income generation and further wealth accrual/protection. These are based on the investment time frame, tolerance for risk, income needs, and specific account circumstances (such as multiple currency account needs).
2. Setting asset allocation parameters: *i.e.*, asset allocation guidelines are set by establishing long-term asset class targets based on return/risk relationship for each client. Asset allocation ranges are set to establish guidelines around the long-term targets designed to add incremental return and control risk.
3. Establishing and managing personalized wealth portfolios: A portfolio is developed that focuses on diversification across and within each asset class to provide the client with attractive risk-adjusted returns. The portfolio is managed on a continual basis while maintaining the quality standards and market diversification necessary to achieve the set goals.
4. The portfolio is continually reviewed and the client kept informed by way of in-depth reporting, internet access, and personalized meetings. Investment goals are periodically reassessed.

In recent decades, the functions of personal wealth management have mutated far beyond a simple notion of managing a liquid financial securities portfolio to a broad array of tailored services for customers. These range from management of real estate to arranging exotic travel services. In these aspects, personal wealth management is a highly labour intensive area; one that requires a large number of man-hours of staff time in order to provide meticulous personalised services to the customer. This suggests that it is an area in India might be naturally competitive.

Table 2.4: Number of wealthy individuals and value of their wealth ($ trillion)

Year	Number in millions	Value of wealth of high net worth individuals	Value of wealth of all investors
1997	5.2	19.1	
1998	5.9	21.6	
1999	7.0	25.5	71.5
2000	7.0	25.5	67.8
2001	7.0	26.0	64.1
2002	7.2	26.7	65.5
2003	7.7	28.8	78.2
2004	8.3	30.8	85.3

Source: Merrill Lynch Cap Gemini and The Boston Consulting Group

started. Their wealth management services are presently sourced almost exclusively abroad.

4. Global transfer pricing

Transfer pricing is a generic term used to describe all aspects of intra-group pricing arrangements between related business entities operating across borders; including: transfers of intellectual property; transfers of tangible goods; service fees, loans and other financing transactions. Intra-group (inter-company) transactions across borders are growing rapidly and becoming more complex. Compliance with the differing requirements of multiple overlapping tax jurisdictions is a complicated, time-consuming task. National revenue authorities (especially in high-tax OECD jurisdictions with increased tax avoidance and evasion) are becoming increasingly sensitive to the ways in which transfer pricing can affect their tax revenues. Governments and revenue authorities are responding by strengthening their legislation and their enforcement capabilities, demanding stricter documentation of transfer pricing practices, and imposing higher penalties for non-compliance. Most countries adhere to the arm's length principle as defined in the OECD Transfer Pricing Guidelines for multinational enterprises and tax administrations.

London is the world's major centre for international legal and tax related services. Globalisation of business and finance has strengthened its position in recent years. The provision of international legal services in London remains the preserve of internationally active law firms.

Transfer pricing is an activity that the Government of India (GoI) looks at askance. Yet it needs to accept that such activity will take place in a global economy dominated by: (a) a growing amount of cross-border trade and investment undertaken increasingly *within* MNCs; (b) the provision of professional global tax management services by global firms of accountants, lawyers and tax advisors present in all major IFCs around the world including tax havens; (c) widely divergent national tax regimes dictated by the revenue and cash-flow needs of particular economies facing entirely different circumstances; and (d) a growing number of mobile HNW entrepreneurs and professionals who, like MNCs, are not wedded to nationality for tax purposes. Collectively they form a vibrant network that is driving the process of globalisation in a variety of sunrise industries – *e.g.*, in IT services, financial services, sports, leisure, hospitality, media and entertainment services industries *etc.*

The OECD as an institutionalized collective is attempting, somewhat ineffectually, to discourage such activity by exerting pressure on developing countries and offshore tax-havens. Yet, oddly, transfer pricing and tax arbitrage are actively encouraged by a number of individual countries that are members of OECD: (i) several states in the USA– *e.g.*, Delaware, Nevada, *etc.*; (ii) a number of European IFCs located in capitals such as London, Amsterdam, Paris and Frankfurt as well as (iii) European havens such as Luxembourg, Lichtenstein, Monaco and Switzerland.

Box 2.5: *Transfer Pricing Services*

Planning transfer pricing strategies, optimising tax exposures, and defending a company's tax position and transfer pricing practices on a global basis, requires knowledge of a complex web of tax laws, regulations, rulings, methods and requirements around the world. Optimisation of transfer pricing also requires an understanding of the capital controls found in some countries. Thus transfer pricing has become a critical element in global tax planning. Global consultants based at IFCs have large teams of economists, tax practitioners and financial analysts who help clients with transfer pricing planning worldwide. A global network of professionals operates throughout the world, supported by the relevant local tax practices. Services provided include:

1. Developing and implementing commercially viable transfer pricing policies.
2. Complying with local revenue requirements and preparing documentation for strong first-line defence against revenue authority audits.
3. Preparing and negotiating appropriate responses to revenue authority challenges, and assessing the risk of revenue authority challenge.
4. Identifying appropriate strategies and approaches to advance pricing agreements, and assisting in preparing these agreements.

An effective global transfer pricing strategy embraces all the cross-border transactions of a MNC. It encompasses not only the pricing of tangible goods, but also transfers of intangible assets (knowledge, royalties), services, or group financing. It incorporates transfer pricing planning, controversy resolution and compliance.

Of course, discriminatory dual tax regimes, created specifically for *non-residents* by tax-havens (in order to attract wealth management and corporate transfer pricing business) raise a complex set of issues insofar as supposedly '*harmful*' tax competition is concerned. Countries like India affected by such regimes might legitimately be concerned about them. But the economic structures of many oil-exporting (OPEC) countries in the Persian Gulf can afford to eschew levying personal income, corporate and excise taxes on nationals and residents. They are sovereign and free to offer the same advantages to non-residents under a non-discriminatory, open-economy regime.

No outside country can afford to argue that a benign low-tax regime for nationals of such a country should not be open to non-residents if the jurisdiction concerned wishes to extend that privilege. To do so would infringe upon the sovereign rights of nations to determine their own fiscal and macroeconomic policies and thus undermine a key pillar of international law. Indian MNCs as well as HNWIs (especially NRIs) are customers of services created by legitimate global tax arbitrage opportunities in countries in the Gulf that are not tax havens. In an environment where adequate support for them is not available in Mumbai, these services are being purchased in Delaware, London, Switzerland, Mauritius, Singapore, Hong Kong, Dubai or elsewhere.

Transfer pricing services require large amounts of skilled labour engaged in providing professional tax, accounting, auditing and consulting services, a high level of labour-force numeracy, and IT support. The provision of transfer pricing services is thus an area that an Indian IFC can excel in.

The HPEC believes that India should permit the development of Indian institutional capacity (in its accounting, legal and business consulting industries) for providing global transfer-pricing services in a Mumbai-based IFC. GoI should adopt the same stance as the US and EU governments whose official and actual positions on this issue seem somewhat contradictory.

India should override external concerns and pressures exerted by OECD that are, in reality, more self-serving (in preserving the competitiveness of their own capitals and IFCs by protecting established market share in this lucrative and growing business) than globally effectual, in addressing the genuine concerns of harmful tax practices, tax competition and revenue leakage.

5. Global tax management and cross-border tax optimization

Related to transfer pricing is the service of global tax management; it deals with international tax treaties and international aspects of domestic income tax laws. Multinational businesses, and individuals with income sources in multiple countries, are increasingly affected by tax, legislative and regulatory developments around the world. Understanding the impact of these developments on business operations and transactions between countries is vital for a company's profitability and survival. MNCs usually employ a battery of international tax specialists to minimise worldwide tax. International taxation is a specialisation among lawyers and accountants; so much so that several universities offer post-graduate programmes in that specialisation.

Box 2.6: *Global Tax Management*

"The world's six biggest accountancy firms are in the top rank in virtually every country in the world, except where they are barred by law. Yet auditing and accounting are intensely local affairs, requiring detailed knowledge of local rules and regulations. Arthur Anderson or Price Waterhouse ought not, to have an advantage over domestic competitors except with multinational clients – which, though large, are almost always a minority. Why, then, have these firms themselves become such successful multinationals? One answer may lie in their ancillary businesses such as consulting, in which they have special skills; another may lie in their ability to buy and organize information technology. But these are not enough to explain such widespread dominance. *Reputation, the power of the brand name, must play the biggest part*. The market for accounting and auditing is an imperfect one: buyers lack the information to tell a good accountant from a bad one, or find it costly to find out, which comes to the same thing. They also seek the accountant's brand name as a means to convince others about their own worth, especially investors and creditors, who are similarly, short of information."

Source: *Multinationals*, a supplement in *The Economist*, March 27, 1993.

Global tax management provides an opportunity for financial, accounting and law firms, to assist MNC clients in constructing effective cross-border strategies, aimed at optimizing their global tax liabilities, while adhering to all applicable laws. Such firms also keep their clients abreast of new developments in the international arena that could affect their business and assist by providing expertise in:

- Tax efficient holding company locations
- Cross-border financing and treasury solutions
- Controlled foreign companies tax planning
- Income tax treaties, profit repatriation, loss utilization
- Inbound and outbound structuring
- Managing intellectual property and intangible assets
- Tax efficient supply chain and shared services; and
- Regional tax issues *e.g.*, EU tax harmonization.

London is a leading international centre for the provision of accounting and related global tax management services. Services that include auditing, taxation, corporate finance and consultancy and are dominated by the big four accounting firms. According to Accountancy Age's 2005 league table, fee income amongst the Top 50 accounting firms rose from £6.3 billion to £7.0 billion. Table 2.5 shows the fee income earned by some of the largest accounting firms in the UK. While there are around 20,000 accounting firms in the UK, the bulk of services provided to larger companies and organizations including cross border and international services are the preserve of a relatively small number of large firms, particularly the Big Four.

6. Global/regional corporate treasury management

IFCs provide the infrastructure necessary for global investment banks to provide international treasury management services for MNCs. These banks provide support systems that enable organizations to: (a) optimize cash management and working capital while earning high returns on surplus liquidity; (b) streamline their receivables using sophisticated information technology to monitor and direct daily cash flows; (c) manage their payables through their supply chain in keeping with the rhythm of their incoming cash flows from customers; and (d) execute transactions electronically across a wide array of currencies, bank account holdings, tradable bills of exchange and letters of credit, as well as temporary investments in treasury bills and corporate money market instruments across a number of national markets.

Broadly, CTM services include depository, collection and disbursement, liquidity and cash management services and export and import related financing services. Most global banks such as Chase, Citicorp, and HSBC offer all of the above services. They have their own cash management systems, often suitably modified to take into account a particular corporation's needs. They use techniques such as netting, exposure management and cash pooling to reduce transac-

Table 2.5: Largest accounting firms in the UK

Firm	Fee income (£million)
PwC LLP	1780.0
Deloitte LLP	1350.0
KPMG LLP	1066.0
Ernst and Young LLP	828.0
Grant Thornton UK LLP	254.3
BDO Stoy Hayward LLP	224.0
Baker Tilly	172.9
Smith and Williamson LLP	127.5
PKF (UK) LLP	113.7

Source: Accountancy Age Top 50, June 2005

Box 2.7: *Corporate Treasury Management services provided by Banks*

Depository services: These include: cash vault services to provide protection and processing capabilities; electronic cash letters to enable scanning and transmitting cheque images and data for deposit into accounts; pre-encoded deposits that provide faster check clearance; returned items solutions to help manage returned items with detailed images; activity reporting to improve efficiency and increase collection rates; zero balance sweep accounts that concentrate funds into one centralized account to use cash resources productively while retaining a centralized disbursing authority and remote deposit solutions to scan checks at the company end and electronically send the images for deposit.

Collection and disbursement services: This involves helping setting up systems to collect funds from customers or other sundry debtors (payers). It also includes flexibility in payment options for international transactions such as cash in advance, open account, letter of credit, or payment on a collection basis. Check image deposit solutions are designed to make check deposits electronically into the business deposit accounts, with both speed and accuracy directly from the company's office; lockbox imaging to view, retrieve and store remittance documents information; automated clearing house to deliver debits and credits on an electronic and automated basis and wire transfers that offer same-day availability.

CTM service providers also enable disbursement of funds to vendors, employees, investors, or other payees. They provide account analysis, itemized information on accounts and balances, account reconcilement with detailed checking account information, outsourcing the printing and distribution of payables and payroll checks, controlled disbursement accounts that provide precise dollar totals of checks that will clear daily so that the business can make accurate funding and investment decisions, disbursement imaging viewing to retrieve and manage check images online, check matching services that protect businesses against check fraud by matching issued checks with those presented for payment on a daily basis.

Liquidity and cash management services: This includes liquid reserve accounts with flexibility to earn a competitive return on investing excess daily cash balances while providing daily investment confirmations and automated repurchases that ensures that bills are paid on time and the excess funds put to good use. Help is provided to link business checking accounts with money market mutual funds, allowing firms to minimize idle cash balances in their checking accounts and maximize the return earned on excess funds invested.

Export and import related services: Exporters are assisted by providing a range of related services that help in hastening the delivery of goods in order to expedite receipt of payment, manage liquidity by ensuring that payment is received within the agreed time period, ensure that the payment is correct and settlement is directed to the bank where a depository account is maintained. Export licenses vary from country to country and stringent conditions usually apply to products related to natural resources, national security, safety or health. Export services help in adapting products for exports to meet such conditions, provide assistance with freight forwarding and insurance against loss, damage and delay in transit since international shipment coverage is significantly different from domestic coverage.

tions costs, manage risks and make effective use of available funds. Major money markets in London, New York and Zurich offer a wide variety of highly liquid short-term instruments so that firms practically hold no idle cash. CTM providers in turn set up money management systems that allow client organizations to borrow from their open lines of credit and repay commercial lines of credit automatically without manual intervention.

In recent years, banks have created enormously sophisticated Internet-based offerings where the services of the bank take over, on an outsourcing basis, many functions of handling an upstream or downstream vendor network of a firm. This involves a complex blend of payments services and Internet technology. Indian financial firms could excel in this area, given India's strengths in computer technology, and the ability to run low cost call centres in India.

7. Global and regional risk management and insurance/re-insurance operations

Historically, a corporate treasury's involvement with risk management has focused on asset-liability management and on identifying and hedging financial exposures to currency and interest rate risks. The company treasurer's classical responsibilities were to: establish policies for financial risk management, execute related practices, and track and report on results.

Today, however, risk management is concerned with an increasingly broad range of risks, financial and operational. Risks such as: liquidity risk, counterparty risk, operational (including employee) risk, and country risk, confront all corporate contenders in today's complex and volatile global environment. They have

Table 2.6: Largest insurance markets

Country	Total ($bn)	% share of world
US	1,098	34
Japan	492	15
UK	295	9
France	195	6
Germany	191	6
Italy	129	4
Canada	79	2
Others	765	24
World	3,244	100

Source: Swiss Re

become important considerations in overall corporate risk management.

Risk management has become so important that individual financial institutions invest an average of $10 million annually in risk management technology. Many of the largest institutions have invested hundreds of millions of dollars. Independent risk management consultants collaborate with corporations to identify their business-specific needs and design integrated solutions delivered through a seamless distribution network to meet marketplace challenges.

This involves employing highly sophisticated exchange traded and tailored derivatives (futures, options, swaps, swaptions, caps and collars) as well as world class derivatives exchanges networking together for trading a wide variety of global contracts. It also involves providing insurance and reinsurance related services.

Table 2.6 shows the fees earned by the largest insurance markets in the world. The US insurance industry is the largest followed by Japan and the UK. It consists of groups and companies such as Lloyd's, underwriters, brokers and intermediaries and their clients. The London market is the world's leading market for internationally traded insurance and reinsurance.

8. Global/Regional exchange trading of securities, commodities and derivatives in financial instruments and indices in commodities

Capital (and derivatives) markets have a crucial role to play in enabling enterprise, innovation and growth at national, regional and global levels. Financial markets, especially equity markets, have grown dramatically in developed and developing countries over the last two decades. Sovereign and corporate bond markets of interest to global investors have grown rapidly since 1987 in the emerging countries of Latin America and Europe.[1] But that has not been the case in Asia or Africa. Derivatives markets have grown explosively and become extremely deep and liquid in OECD capital markets but remain nascent in most emerging markets.

In Europe, capital markets have become increasingly *regionalised*. Globalisation has resulted in: substantially increased cross-border capital flows, tighter links among financial markets, and greater commercial presence of foreign financial firms around the world. Indeed, one feature of London, as perhaps the best-connected GFC in the world, is the extent of foreign involvement and ownership of financial firms, exchanges and markets (as well as the employment of large numbers of foreigners) in the City. Up to the 1970s, British investment and merchant banks played a prominent role in offering IFS to global clients. But in 2005 there was no independent British-owned global investment bank left standing. They had all been taken over by, or had merged with, other global firms. IFS in the City

[1]This was due largely to the global trading of Brady bonds (deep discount, low-coupon, and face value protected) issued in 1987–90 as a means for converting the bank debt of highly indebted Latin American and European countries in crises into market tradable debt. That mechanism enabled country risk to be spread more widely across a global institutional and individual investor base; rather than being concentrated in a few banks, thus endangering the stability of the global banking system. Brady bonds were credited with not just developing bond markets in these two regions but with bringing an end to a developing country debt crisis that had been prolonged unnecessarily, and at great expense to debtors and creditors alike, throughout the 'lost decade' of the 1980s. Such bond markets were instrumental in dealing more expeditiously with smaller debt crises that occurred in other emerging markets through the 1990s. Had such markets existed in Asia during the Asian debt crisis of 1997–99, it is arguable that Asia might have escaped the worst effects without recourse to the IMF, and with much lower overall economic costs being incurred, especially by Indonesia, and without the unnecessary spread of contagion into the secure markets of Singapore and Hong Kong.

of London are now offered by a plethora of multinational, American, Japanese and European investment banks along with a few from emerging markets. Yet, contrary to popular belief that the success of an IFC is characterised by the strong presence of indigenous financial firms, London has thrived and grown as an IFC rather than suffered any loss of influence as a result of foreign presence.

This is an important lesson for Indian policy-makers and regulators to imbibe: *i.e.*, the success of an IFC and the revenues a country derives from IFS exports should not be confused with reserving space and ensuring gains for indigenous firms alone. An IFC succeeds because it is *international* in every sense of that word. What makes an IFC *international* is the multinational origin of players operating in it. An IFC in Mumbai dominated by Indian financial firms, or reserved for them, would not be as successful as an IFC that embraced all the global players that already operate in the world's other GFCs and IFCs .

A key feature of financial globalisation has been the migration of stock exchange activities abroad, particularly in from European and emerging markets. There is now an increasing tendency toward multiple listings of financial securities, and of derivative/commodity contracts, on different exchanges with emerging investor demand for 24×7×365 trading of all listed securities across all exchanges. Many firms, from the EU and emerging markets, now cross-list their shares on international exchanges in the form of ADRs and GDRs. For example, the shares of HSBC are listed and traded in Hong Kong, London and New York; they should perhaps be listed and traded in Mumbai and Shanghai as well. By the same token the shares of several Indian multinational companies and transnational financial firms, public and private, are traded in New York (ADRs) and Luxembourg (GDRs).

Remote access to trading systems is ubiquitous, implying that the services offered by stock exchanges can now be accessed from anywhere, including firms having their stocks traded on international exchanges while still being accessible to local investors. Given the network properties of stock exchanges, high liquidity further increases the value of additional transactions at exchanges such as New York or London, leading to even greater concentration of order flow and increased liquidity at these exchanges. As a natural extension of these tendencies the first steps were taken in 2006 to cross-link ownership and management of corporate exchanges in the US and EU through take-over bids such as those launched by Nasdaq and the Deutsche Bourse for the London Stock Exchange. In response the LSE has developed closer partnership arrangements with the Tokyo stock exchange.

Even more recently, in September 2006, a group of global investment banks announced their intention of collaborating to establish a global corporate exchange that would provide a more efficient, less expensive global securities trading platform to compete with established exchanges. Those types of developments will undoubtedly spread world-wide with capital market exchange platforms being globally owned and operating on universal standards of accepted best practice to meet the needs of global investors. It is unlikely that Indian exchanges will remain exempt from such trends for too long.

Table 2.7 shows the growth of the global futures and options market, in units of a million contracts that is used internationally. India performs well in equity indexes and individual equity derivatives. But India lacks interest rate or currency contracts; both of which have now become integral features in the emergence of viable bond markets. London is the biggest market in the world for derivatives traded over-the-counter, and the second largest for exchange-traded futures and options; both of whose turnover has doubled in recent years.

Mumbai is better placed to develop these particular capacities more quickly than other emergent IFCs owing to the presence of strong exchange institutions, highly efficient and cost-effective computerized and fully automated trading platforms, rapid real-time gross settlements and delivery. At the same time, the present situation is daunting, with a huge gap between

Table 2.7: Global futures and options volume by sector (million contracts)

	Jan–Jun 2005	Jan–Jun 2006	Percentage change
Equity indices	1780	2252	26.5
Interest rate	1320	1637	24.0
Individual equity	1139	1463	28.5
Agriculture	164	205	25.3
Energy	131	172	31.2
Currency	75	116	55.0
Non-precious metals	24	41	70.9
Precious metals	24	41	70.9
Total	4681	5944	27.0

Source: Futures industry magazine

Box 2.8: *Is India's National Stock Exchange (NSE) a globally competitive derivatives trading exchange?*

When thinking of an NSE-traded USD/GBP currency futures that competes against other exchanges, such as the USD/GBP futures that are available at the Chicago Mercantile Exchange (CME), there are two components of the total cost as seen by a customer. The first is the direct charges paid to the the government, the exchange and the broker. The second is the 'impact cost' when placing an order. The latter depends on the diversity and sophistication of the participants who trade on the NSE. The former is directly influenced by policies. In order to compare charges other than impact cost, we compare NSE against e-CBOT, the CBOT electronic platform and the CME Globex electronic platform.

The tariffs at NSE is made up of the following components. There is a 0.2 basis point charge by NSE; a 0.01 basis point charge for an 'Investor Protection Fund', there is a stamp duty of 0.2 basis points, there is a service tax which is 12.24% of the brokerage fee and there is the securities transaction tax which is 1.7 basis points on sales only. External levies work out to roughly 2 basis points while the NSE charge works out to a tenth of this.

These are enormous numbers when compared with the CBOT. The tariff at CBOT is $0.11 to $0.16 per contract (summing across the exchange fee and the clearing fee). It is a per contract charge, which does not vary with the value of the transaction. CBOT does not suffer from payments to an 'Investor Protection Fund', stamp duty, service tax on brokerage and securities transaction tax. At CME, the charge for equity products is $0.35 per contract. In addition, CME has a provision where the payments associated with all proprietary transactions originating from one clearing firm are capped at $50 per day for futures plus $200 a day for options. Thus, for a proprietary trading firm, a payment of $250 per day gives unlimited trading services for futures and options.

For comparability, the specific transaction that we focus is 8.29 Nifty contracts, which have the same notional value as one S&P e-mini contract. We assume that the 'unlimited trading services' provisions do not come into play. In both cases, on 8 November 2006, the notional value of the transaction was Rs.3,77,730 or $69,575. We measure the total round-trip transactions costs faced under three cases: (1) Proprietary trading by a securities firm, where there is no brokerage; (2) A retail customer of a brokerage firm (assumed 4 basis point charge, ad valorem, in India, but $3 per contract in the US) and (3) A high-volume customer of a brokerage firm (assumed 1 basis point, ad valorem, charge in India, but $0.05 per contract in the US). The round-trip charges are reported in rupees.

	NSE	CME
Retail customer	3343.52	374.40
High-volume customer	1235.07	108.90
Proprietary	788.98	31.05

This table shows a huge gap in competitiveness faced in doing IFS in India. The service which can be bought by a high-volume customer in Chicago for Rs. 31 is being sold in India for Rs. 788.98. It shows that NSE is the costlier venue by a factor of 9 times, 11 times or 25 times, depending on the choice of perspective: a retail customer, a high-volume customer or proprietary trading by the securities firm. This is a particularly unusual situation because the charges imposed by NSE itself, or by the brokerage firm itself, make up a very small part of the overall costs paid by the customer. The overwhelming contribution to the costs as seen by the customer is from the external levies – securities transaction tax, stamp duty, contribution to investor protection fund and service tax on brokerage.

Source: Calculations made by Nathan Corson and Raghvendra Kedia at the request of the HPEC. The full spreadsheet with their calculations can be accessed on the MIFC web page.

Table 2.8: OTC derivatives turnover (average daily turnover in April $bn)

	1998	2001	2004
UK	171	275	643
US	91	135	355
France	46	67	154
Germany	34	97	46
Italy	5	24	41
Belgium	42	22	39
Netherlands	6	14	32
Others	79	130	198
Total	474	764	1,508

Source: Bank of international settlements

Indian prices and world prices (see Box 2.8). Significant policy reforms will be necessary in order to translate India's latent strengths in this regard into global competitiveness.

9. Financial engineering and architecture for large complex projects

Large projects (over US$ 1 billion or more) in energy and infrastructure now require blocks of wholesale funding sourced from national and global capital markets, export credit agencies and banks. Often these funds have to be raised with complex risk-management instruments attached. Investment banks situated in IFCs are best suited for putting together the funding and the risk management of such projects in place.

A decade ago, funding of such projects was mostly done using convertibles, cum-warrant bonds, credit-linked notes and forex-linked bonds. Today, while these products still exist, more complex products, including a whole range of CDOs (CBOs as well as CLOs), exchangeables and reverse convertibles as well as a huge number of certificates linked to all kinds of underlyings such as indices, baskets, securities, funds and hedge funds are available. A large proportion of risk management for these projects is done using global OTC derivatives. A range of innovative products are developed for clients and governments around the world. Table 2.8 shows the average daily turnover of OTC derivatives.

10. Cross-border mergers and acquisitions (M&A)

Global corporate deal-making (whether in the form of voluntary or hostile M&A, or divestiture, disinvestment, unbundling, privatization *etc.*) has become an important activity as organizations expand and diversify across the world. Global M&A advisors provide cross-border support and opportunities for clients who wish to complete acquisitions, company sales, buy-outs and buy-ins, fund raising and other corporate finance transactions. The objective is to obtain the best combination of price, form of consideration, deal structure, and compatible purchaser within a targeted timescale.

Comprehensive research, involving cooperation and expertise of relevant partners is used to generate an agreed list of recommended buyers with most to gain from acquiring the business. By creating a competitive bidding situation and actively managing the sale process through to legal completion, the advisor delivers the best possible deal, structured for maximum tax effectiveness, whilst maintaining strict confidentiality throughout.

In the global M&A arena, India was ranked second last in terms of dollar value of M&A in a recent ranking by Bloomberg. But, what is important in the data for regional breakdowns by target countries is that, with a 175% volume change, India's M&A growth is blazing enough to take the country to the third slot, next only to France and Hong Kong, each of which have achieved more than 200% growth. Latin America and Canada are at distant fourth and fifth places, with 108% and 106% increase, respectively. Clearly global M&A is an activity that will become increasingly important in India and for which a considerable amount of back-office BPO/KPO and due diligence research work is already outsourced to India.

11. Financing for public-private partnerships (PPP)

This relatively new activity has emerged on scene with considerable force since the development of the London Underground

Box 2.9: *Services provided by global M&A advisors*

Takeovers and acquisitions: Global M&A advisors collaborate actively to create attractive acquisition opportunities, by carrying out an exclusive search, to a brief agreed with the client, for relevant 'best-fit' targets in designated territories. Through dedicated research and extensive local and international contacts, they produce a recommended list of attractive businesses. Once the client agrees upon the target companies, the advisors initiate discussions with prospective vendors. They also provide assistance in obtaining additional information, value the target and then recommend the most suitable way to structure a deal. Then, in conjunction with the client, they negotiate terms, draft the letter of intent and manage the transaction safely to legal completion.

Fund raising, venture capital and restructuring: For clients wishing to raise development or venture capital, or refinance or restructure the balance sheet of an existing business, global M&A advisors assist in raising and negotiating the necessary mix of funding. This could cover the areas of equity, mezzanine, senior debt, working capital facilities and asset financing. The clients business is presented in the most favourable light to an agreed list of senior decision-makers, within relevant financial institutions, drawn from the advisors extensive list of contacts. By obtaining competing offers, the most attractive terms are sought to be made available. They also assist over-leveraged companies in working out new financing arrangements with their creditors including the raising of new capital and/or the sale of assets.

IPOs, *stock market flotations and 'take-privates'*: For unlisted companies with an established trading record, a flotation on a suitable stock market may be a sensible strategic step forward. The global mergers and acquisitions advisors evaluate the suitability of the business for a stock market flotation or initial public offering (IPO) and recommend a programme of preparatory work, before approaching an agreed short list of potential sponsors or investors directly. They then help the company to select the most relevant brokers, lawyers and other members of the advisory team to make the flotation a success. In case it is felt that the continued growth of a public company is best ensured by taking the company off the stock market into private hands, the advisors seek out the best financing partner and assist in all aspects of the public to private transaction.

MBOs, MBIs, *private equity transactions*: M&A advisors assist companies to raise private equity funding on the best available terms for a management buy-out (MBO) or buy-in (MBI). MBOs and MBIs are technically complicated, time-consuming and often risky for management teams. These advisors help protect management from risk and introduce them to relevant financial institutions to raise the finance required. They work with the management team to produce a business plan, which sells the investment opportunity and guides them through the minefield of issues which they will inevitably face. They also negotiate with financial institutions to achieve the best possible equity deal for the management team and negotiate the purchase of the business on the most favourable terms available. Partners of these firms have regular personal contact with the leading private equity investors and providers of debt finance.

Box 2.10: *Why has the UK been so successful with PPPs?*

The UK Government took a hard look at its problems with public procurement and public service delivery during the 1980s and was not at all satisfied. Cost and time overruns were common in major projects with conflict between contractors and the public sector sponsor a major cause of poor performance. Buildings in the education, health and other public service sectors were also poorly maintained, which inevitably affected the quality of services provided. Yet, elsewhere in the UK, such as in the offshore oil and gas sector, examples of what could be done by removing the conflict between project sponsor and contractor were providing some startling results in the cost, delivery and ongoing maintenance throughout the life of the project. In other words doing things differently at the start could favourably affect the whole life costs of the project.

In both the public and private sector, attitudes had been influenced by a decade of expertise developed in the UK's programme of privatization of large-scale infrastructure such as power, water and transportation. That programme demonstrated that bringing together private sector skills with better informed public sector procurement delivers better services for the public.

A key principle is to allocate the risks in the project such that each sector takes responsibility for those risks it is best able to manage. The principal driver for the UK Government is to achieve best value for money for the taxpayer. The best value for money normally comes when the private sector manages the risks of financing, design, build and delivery of the service facility. There is no payment until the facility is delivered and fully operational. Maintaining the facility at constant or improved standards over the life of the project (normally around 25 years) is also the contractor's responsibility. There are agreed service levels and financial penalties if the contractor fails to deliver these standards.

Two important factors became clear at an early stage of this new process. The first was that putting private sector capital at risk, not just its profit, creates a powerful incentive for the private sector to build the assets on time, maintain and deliver high standards throughout the contract life. The second was that if the private sector money was to be attracted and take on the attendant risks, the Government needed to show a strong commitment to the process of PPP, give clear indications on project priorities and demonstrate a 'deal flow' of projects.

To assist confidence levels in both the private and public sectors the UK Government recognized the need for a systematic and 'top down' driven approach to generate momentum in PPP projects. One of the contributory factors to the UK success was setting up of a high level task force in 1997, comprising experts from both public and private sectors, to look at critical issues, and focus on driving through projects. It was also to act as an important repository of knowledge for the public sector.

Another key to success has been the full involvement of Local Authorities through the agency known as the Public Private Partnerships Programme (or 4Ps for short). The agency provides practical support and guidance to all local authorities in England and Wales to enable them to improve their procurement capability, particularly for large projects, through partnership structures. Having worked with 200 local authorities to date, 4Ps is recognized as an unrivalled source of best practice and practical guidance on project procurement.

(LU) PPP. Expert consultants, who help in putting together a PPP deal, provide legal, accounting, consulting and other business support services to the public and private parties co-operating under PPPs, providing comprehensive support from the beginning

to the end of a transaction. The consultant advises on the most appropriate way to develop and structure PPP projects and drafts all necessary documents to implement the structure, keeping in mind the needs of potential financing parties. Typically they provide value to restructurings and renegotiation throughout the lifespan of projects. This would include:

- Advising governments on best practices for engaging the private sector in traditional government monopoly sectors.
- The creation of regulations for sector-based or multi sector-based authorities, whose function is to oversee the development of the competition in the private sector, the economic policies defined by the public authorities, and the security standards and quality of service.
- Drafting:
  - Tender notices and invitation letters by which the private contractors submit their tenders
  - Constituent documents for project companies
  - Agreements, including concessions and licenses, between the public and private parties
- Designing alternative financial/legal structures
- Assisting in every aspect of the PPP operation
- Financing models and project documents

Public private partnerships (PPP) have been more widely developed in the UK and the EU than elsewhere. In the UK, new facilities for schools, hospitals, prisons and roads financed through PPPs have delivered substantial benefits. In India, which is short of fiscal headroom for financing urgently needed infrastructure, PPPs offer the obvious vehicle for expanding its physical and social infrastructure rapidly. However, going beyond India, there is a substantial PPP-related IFC market worldwide. The skills required in this business are available in India. Hence, it offers a major business opportunity for Mumbai as an IFC.

Case studies: London, New York, Singapore, Dubai

chapter 3

As observed in the two preceding chapters, IFS are being provided to the world by a few international financial centres (IFCs) located in the US, EU and East Asia. In this chapter, we present four case studies: London, New York, Singapore and Dubai.

We have chosen these four cities to look at closely because: (a) the first two epitomise what a fully-fledged GFC is, and what Mumbai should aspire to become as it matures; and (b) the latter two offer immediate competition in India's own neighbourhood of a kind that may compromise the emergence of Mumbai as an IFC.

Indeed, if policy-makers and regulators do not take the necessary actions for making Mumbai a credible/viable IFC in the near future, then Indian financial institutions that are managerially capable, and have freedom of manoeuvre, are likely to locate in the two proximate centres within a matter of months. From there they can offer their clients (whose IFS business they do not wish to lose by default) a range of IFS that they cannot offer from India today. Indeed Dubai International Financial Centre (DIFC) is counting on that eventuality materialising. Such a move would compromise, delay, and perhaps even prevent, Mumbai from becoming the kind of IFC that an economy of India's growing stature should have.

1. Summary overview

London has been an important IFC for over three centuries. It was predominant in 1830–1918 when the British Empire covered much of the world. After an interregnum in 1918–70 – when it ceded primacy to New York – it has now recaptured its status as the world's premier GFC. That has been a result of canny opportunism and adept regulation. It exploited the reality that financial markets in other large economies such Germany, France, Japan and the US were being over-regulated and over-taxed.

New York rose to prominence as an IFC with: (a) the growing stature of the US economy between 1870 and 1918 – similar to what is happening in China and India today; and (b) relentless American innovation in finance – which is not happening in China or India as yet. Financial innovation in the US (not just New York but Chicago as well) has continued ever since. New York became the world's dominant IFC in 1918 when war-ravaged Europe involuntarily ceded global leadership to America. That baton is now passing to Asia as the 21st century unfolds.

Singapore's IFC emerged in the 1980s and 1990s and is now well established if not yet fully developed. It is still a far cry from London and New York. But it is arguably ahead of Tokyo, Paris and Frankfurt. That is a remarkable feat for a small entrepot economy to have achieved in the space of a mere quarter-century.

Dubai – or more specifically, the Dubai International Financial Centre (DIFC) – is a newly emergent enclave IFC with the resources and infrastructure in place to develop very rapidly in providing IFS to markets in the Middle East as well as in West, Central and South Asia.

Unlike London and New York, the IFCs in Singapore and Dubai have not evolved as a consequence of their historical and geographical legacies, or natural evolution of their market economies at the crossroads of global financial flows for trade and investment. They have emerged as a result of a powerful push by their respective governments to develop IFCs. Singapore has the advantage of being at the centre of

the large and flourishing ASEAN regional economy. Dubai is located in a more volatile neighbourhood. Its political and administrative governance is not based on an established democratic structure, nor on global norms concerning the rule of law. It is based upon the unusual competence of two generations of a monarchic autocracy. But the next generation of leadership is as yet untried and untested. Succession is unclear. DIFC is incipient and has yet to prove itself. Dubai is only at incipient stages of establishing itself as a stable global city whose future is assured. But if its recent accomplishments in other spheres (in a shorter span than Singapore) are indicative, then portents for success are favourable.

Taken together, these four global cities (two old, two new) are natural reference points for a policy debate in India about establishing an IFC and how it might evolve. In a nutshell, Mumbai's IFC should, over the long term, aspire to emulate the City of London. It should operate and be regulated in the same flexible way. But it faces competition from Singapore and Dubai whose capabilities/ambitions are clearer. As noted, that may compromise Mumbai's development as an IFC in the nascent stage if the ingredients for a successful IFC are unavailable or poorly blended. The main such ingredients of course are political, administrative and regulatory leadership. They are required at central, state, municipal, and corporate, levels of governance.

If past experience is any guide, symbiotic relationships will develop across IFCs over the years. The task of global IFS provision is already fragmented into sub-components produced at the most efficient production location and synthesised at the point of contact with the client. Manufacturing in almost all industries is now organised on that basis in a seamless global production chain. Similar complex organisation of IFS production is now technologically feasible and becoming increasingly desirable in terms of cost-effectiveness and efficiency. Given the proximity of time zones, this will generate strong pressures for close working relationships between/among the IFS industry in Mumbai with that in Singapore, Dubai, London and New York.

From what we discern of IFC activity since 1980, it is clear that the emergence of competing IFCs does not necessarily displace work at other IFCs. A study on career development patterns in the global IFS industry insightfully suggests that it is typical for high-flyers to work in a number of IFCs; particularly London, New York and Singapore.[1] They do so for different global financial firms, and establish their own informal working networks, before settling down as senior executives in any one of them. Perhaps as a consequence of such human networks, the growth and development of Singapore as an IFC appears to have created more IFS business for London and New York rather than less. On that basis the emergence of Mumbai and Shanghai as IFCs should be welcomed by London and New York if not by Singapore and Dubai.

But, at the same time, anecdotal and quantitative evidence suggests that Singapore has diverted some business from Tokyo and Hong Kong. Tokyo has not been as global or culturally adaptable in its aspirations and outlook as an IFC. It has not adopted English as its IFC's *lingua franca*; nor is it as prone to financial innovation, or to light-touch regulation, that adapts quickly to changing national/global circumstances.

Similarly, the primacy of London appears to have constrained IFS opportunities for other European centres like Amsterdam, Paris and Frankfurt. These centres have not adapted governance frameworks for their financial regimes, nor their regulatory and tax practices, in tune with rapidly evolving global expectations/standards as London has: nor do they use English for communicating with the world. Though home to large immigrant populations they are not as open to, or as tolerant of, cultural and lingual heterogeneity on the same scale as London and New York. And they have onerous tax regimes that deter expatriates in the IFS industry from locating there.

Evidence from all four case studies – and contra-evidence from IFCs like Tokyo and those in continental Europe – suggests strongly that the use of English is an essential ingredient for the development of a viable

[1]These results are from the 'Loughborough Study'.

IFC. That is because English is the default language of global business.

The following four case studies have been presented in order to help policy-makers and the wider public to understand in concrete terms what it takes for an IFC to be commercially viable, competitive and successful; and to guide debates about specific policy aspects important in the formation of IFCs. They are particularly relevant given the coming years of cooperation and competition that Mumbai will inevitably confront in its dealings as an IFC with Singapore, Dubai and London.

2. A closer look at the City of London

London is at present the most successful Global Financial Centre (GFC). It is the world's largest net exporter of financial services, earning a net surplus of about US$ 31 billion in 2005 from IFS. It leads in international bank lending, consulting on cross-border mergers and acquisitions, and trading/issuing international bonds. It is the leading global currency trading centre, with a 31% market share of total global currency trading.

London's origins as an IFC can be traced back to just before the Napoleonic wars. Edward Lloyd's Coffee House – where maritime insurance was arranged – was established in 1688. The Bank of England was formed in 1694. By the late 17th and early 18th century, economic development in north and west Europe had advanced to a point where surplus savings were being generated. New types of financing needs were making themselves felt simultaneously. This was a period in which European imperial powers were expanding their colonial domains rapidly. Colonisation required substantial risk financing for transport (e.g. railway projects), trade, other infrastructure, as well as for productive investment in agriculture, mining and primitive manufacturing.

In financing commercial activity at home and abroad, London played a significant role in key innovations such as: the limited liability company, organised equity trading and syndicated insurance. This triggered the growth of public traded securities and of merchant banks to deal in them. London invented the market-dominated financial system now known as the *Anglo-Saxon model*. Individual shipping ventures, as well as such enterprises as the British, Dutch and Danish East India Companies, were financed by equity interests privately distributed among wealthy aristocrats, government personages or merchants from sponsoring countries. Early mining ventures were routinely funded by the issue and sale of shares or participations.

Another need that London met was government financing for countries ranging from those of major European countries to small princely states; often for financing wars. Given the risks and difficulties of contract enforcement, wars could not be financed by equity participation. They were funded by debt arranged by bankers, such as the Rothschilds. Indeed, historians have noted that England had an advantage in waging war against France because of its superior expertise in bond financing with centuries of financing wars through large-scale sovereign bond issues. Such public debt was run down through fiscal surpluses in peacetime. The long history of the UK shows a remarkable ability to doggedly run surpluses and run down the debt/GDP ratio for decades on end in peacetime, which established the credibility required for borrowing of the order of 100% of GDP at the time of the Napoleanic wars, the First World War and the Second World War.

Capital flows in the 18th and 19th centuries involved issuing securities in Europe to finance development in the Americas and the colonies. Infrastructure (*e.g.*, railways) in the US and Latin America, as well as mining, ranching and plantation ventures in the colonies, were financed through share and bond issues in London. In real terms, they would seem enormous even by today's standards.

Global trade, finance and capital flows were disrupted for three decades between the start of the First (1914) and end of the Second World War (1945). Between 1945 and 1957, the US exported capital to Europe and Japan to the tune of over 3% of its GDP for the

Marshall and Stimson Plans alone. A further 5% of GDP was transferred by way of private capital flows as major US corporations established manufacturing bases in Europe. But as domestic consumption in America grew during 1945–60, and as domestic production in Europe revived (much of it being exported to the US to earn surpluses that repaid US reconstruction loans), the US' trade balance with Europe shrank dramatically, thus deepening its overall balance-of-payments deficits.

Faced with a massive expansion of public spending under the Kennedy and Johnson Administrations, and the simultaneous financing of a war in Vietnam, the US Treasury realised in the early 1960s that capital exports to Europe could not continue. The US Treasury had begun encouraging European authorities to develop their own capital markets since the late 1950s. That initiative resonated well in London where the authorities began immediately to revive its role as an IFC.

In June 1963, the first Eurobond was issued in London by *Autostrade*, the Italian state highway authority. British merchant banks (*e.g.*, Morgan Grenfell, Barings, Cazenoves, Flemings, Jardines, *etc.*) rapidly assumed leadership in Eurobond issues for sovereign, corporate, multilateral and parastatal issuers; not just from Europe but from around the world. That market expanded rapidly. It became so lucrative, that leading American investment banks such as Morgan Stanley, First Boston, Lehman Brothers, J.P. Morgan and Goldman Sachs also set up operations in London in the late 1960s; propelling its resurgence as an IFC. Its role was bolstered by the recycling of petrodollar surpluses via London throughout the 1970s via syndicated bank lending and sovereign bond issues.

American institutions operating out of London were joined in the 1970s by financial firms from Holland, Germany, Japan, France, Italy, Scandinavia and Canada. That second wave was followed by a third through the 1980s and 1990s from Singapore and the developing world. What cemented London's primacy as a GFC in the 21st century was the Big Bang triggered by the Thatcher Government in 1986. It resulted in total deregulation and liberalisation of the UK's capital, insurance and currency markets and replaced the gentlemanly atmosphere in which business was traditionally done in the City. Professionalism was infused from abroad, mainly the US. London's financial markets were opened to all. That led to the entry of major global institutions (*e.g.*, HSBC and Citigroup) as well as financial institutions from every economy in Europe, Japan and the developing world. An unfortunate consequence was that such opening-up led to the demise (through acquisition) of British owned investment banks which were outclassed by their better capitalised and more professionally run foreign rivals. However, many UK owned commercial banks and mortgage finance institutions continue to flourish in providing retail financial services to domestic customers rather than specialising in IFS.

The capstone for ensuring London's competitive edge in the provision of IFS was laid by the Blair Government in 1997. The Bank of England was made constitutionally independent and responsible solely for the conduct of monetary policy. That was to be done in a transparent manner with no interference by the Treasury. All tasks other than setting the base rate were shifted out of the Bank of England. The frameworks for accountability and for total transparency of decision-making were put into place for this one task. The Bank of England does not trade on the currency market to intervene in stabilising exchange rates, even in times of stress. The burden of financial regulation and supervision was transferred to a Financial Services Authority (FSA) that became a unified single regulator for all financial services. Regulatory unification prevented the fragmentation of finance, avoided regulatory turf wars, eliminated the problem of regulatory issues falling between the cracks when multiple regulators regulate different institutions, and increased benefits from economies of scale and scope.

The FSA developed and applied a unique framework of *principles-based regulation* — a counterpoint to the US and continental European approaches of rules-based regulation that necessitates

Table 3.1: London's share in global foreign exchange trading

April 2006	Global foreign exchange market turnover ($bn)	% share of markets		
		UK	US	Japan
2001	1,277	31.1	17.7	9.1
2004	2,041	31.3	19.1	8.3
2005	2,103	31.5	18.9	8.3
2006	2,901	32.4	18.2	7.6

Source: IFSL estimates; Bank for International Settlements

codifying detailed rules and regulations that define all financial products and markets. The superiority of *principles-based regulation* (with its inherent flexibility in permitting financial innovation) over *rules-based* regulation (which cannot anticipate every future innovation and therefore tends to suppress it) has been proven over a decade. It has further entrenched London's role as a GFC. It has resulted indirectly in many global banks (investment and commercial) shifting entire divisions for major corporate financing functions from New York to London to take advantage of the regulatory flexibility offered in that location.

Table 3.1 shows the growth of the currency trading market in London while Table 3.2 indicates the share of London in overall IFS.

Why/How did London become the world's pre-eminent IFC? Eight factors made a major contribution to that outcome. They need to be considered carefully by Indian policy-makers.

1. ***Location:*** London has a particularly convenient time-zone location. In the morning, London talks with Tokyo, Sydney, Singapore, Hong Kong and Mumbai. In the evening, London talks with New York, Chicago, Miami and San Francisco. London daytime overlaps with daytime in Tokyo Singapore, South Asia, the Middle East, Europe and the Americas. These regions account for the bulk of world GDP. Longitudes from Mumbai to New York can be accessed through flights of below 8 hours from London.
2. ***Open, genuine participatory democracy and rule-of-law:*** London has a long tradition of a mature democracy with freedom of speech, as well as an array of constitutional and popular checks-and-balances to curb the excesses of government, legislature, and politicians at every level of government. These are firmly respected and enforced without discrimination, fear or favour. London establishes global standards for the rule of law with a capable and sophisticated legal system for resolving commercial disputes. This attribute dovetails well with the contractual requirements of international finance.
3. ***A multinational, multilingual workforce:*** London has embraced a large population of immigrants thanks to the legacy of Empire and a tradition of providing asylum from oppression in Europe. People of all nationalities and ethnic origin are to be found in the City of London at every level for financial firms from all over the world. Ethnic origin and nationality do not pose insuperable barriers to employment or advancement in the City. That enables London to network and communicate with the rest of the world – including the most remote developing country – more effectively than any other IFC.
4. ***Language:*** With English having become the default language of globalisation, London (along with New York) has an advantage over other IFCs that operate in different lingual environments. Lack of English has hindered the emergence of Tokyo, continental European centres, as well as other aspirant IFCs such as Shanghai and Seoul.
5. ***Capital Controls:*** The UK has no capital controls. But, London was an IFC even when capital controls were in force between 1945 and 1979. However global circumstances have changed dramatically since then. In 1945–79, the cities that London competed against also had capital controls consistent with the then-prevalent Bretton Woods system. It is impossible to see London being as successful as a GFC if capital controls (of

Table 3.2: Market share in IFS (percent)

	UK	USA	Japan	France	Germany	Others
% share						
Cross-border lending (Sep 2005)	20	9	8	8	11	44
Foreign equities turnover (2005)	43	31	–	–	3	23
Currency spot turnover (Apr 2004)	31	19	8	3	5	34
Derivatives turnover						
– exchange-traded (2005)	6	34	2	2	12	44
– over-the-counter (Apr 2004)	43	24	3	10	3	17
International bonds – secondary market (2005)	70					
Fund management (as a source of funds, 2004)	8	45	12	5	4	26
Hedge fund assets (Dec 2004)	20	69	1	2	–	8

Source: IFSL, BIS, World Federation of Exchanges, LSE

even a limited sort) were now in place. Today, the Bank of England, the FSA and the UK Treasury do not attempt to even capture data about capital flows of the kind that the authorities in India feel is necessary. But the advent of new regulations aimed at preventing money laundering and the financing of terrorism may change that situation on an exceptional basis.

6. ***Openness and lack of protectionism in the* IFC:** The Big Bang of 1986 resulted in complete deregulation, liberalisation and opening up of the IFS market in the UK. Some restrictions remain on direct foreign entry into the domestic financial services market. But those can be overcome by acquiring extant financial firms operating in that market. This policy of openness was pursued despite the threat to the survival of venerable British merchant banks. That threat eventually materialised. But it did not deter the authorities from internationalising the City with no preconceived limit on foreign presence, nor any insistence on the participation of domestic institutions, nor on the employment of UK nationals in key executive positions. The internationalisation of its financial system that the UK has achieved is remarkable by any standards; particularly by Indian standards that favour protectionism over openness and efficiency. Table 3.3 shows that of the 347 banks authorised to operate in the UK, only 78 are UK owned and controlled. Many other countries lack the level of commitment to openness which enables such a level of internationalisation (*e.g.*, most continental European countries and Japan) and are thus unable to compete with London in providing IFS.

7. ***Policy innovations of the late 1990s:*** The 1997 reforms that: (a) gave the Bank of England statutory independence for the conduct of monetary policy with a single price stability target and without any interference from the UK Treasury and (b) created a single unified financial system regulator (the FSA) have together set global standards for cutting edge central banking and financial regulation. The UK example has, over the last decade, become the ideal model for central banks and financial regulators worldwide. Moreover the FSA's pioneering *principles-based approach to regulation* is now seen as more innovation friendly and less risky than traditional rules-based regulation.

8. ***Policy focus on finance:*** With a 2005 GDP of around US$ 2.4 trillion, the UK economy is the world's fifth largest in nominal terms. That is more than three times the size of the Indian economy in nominal dollars; although it is actually slightly smaller in PPP terms. But the role of its financial services industry, and of IFS provision in particular, in generating employment, output and net export revenue is sufficiently large to command the special attention of politicians and government. Whereas the UK has lost competitiveness

Table 3.3: Ownership structure of banks operating in UK

	1995	2005
Total authorised banks	481	347
Incorporated in UK	224	165
UK owned and controlled	142	78
Foreign owned and controlled	82	87
Incorporated outside the UK	257	182
Total Foreign banks	339	264

in manufacturing, and a number of service industries as well (other than publishing, media and entertainment) it has remained competitive in the provision of IFS. This heightened prominence of finance has helped to ensure that the City of London attracts its best professional talent, as well as the attention of the UK's key administrators, political leaders and statesmen. It inclines them toward reaching consensus on far-reaching reforms in the financial services sector in a timely manner (such as the Bank of England and FSA reforms) and continually adjusting/fine-tuning the legislative framework and regulatory environment in keeping with changes in the global environment to assure continued competitiveness. If London lost market share in the global IFS marketplace, this would affect election outcomes in the UK through the large direct and indirect impact of IFS revenues upon UK GDP.

In contrast, whereas financial services in the US as a whole account for a significant proportion of value-added, net IFS exports are small in comparison with the size of the economy (US$ 13 trillion in 2005) and of gross exports. American administrations and congressional leaders – inclined to be insular – lack a similar dedicated focus on IFS when compared to their UK counterparts. This has posed greater difficulties for the US in reforming unhelpful financial policies (such as the prolonged separation of banking and capital markets under Glass-Steagall).

Regulation is fragmented across the Fed for banking, the SEC for spot securities trading, the CFTC for derivatives, and the Office of the Comptroller of the Currency. That has led to difficulties in co-ordinating multiple regulators across the financial system. Legislative myopia, and suspicion of the motives of foreigners in compromising the US's commercial interests, has resulted in the passage of legislation such as the Sarbannes-Oxley Act. Sarbox is anathema to the global business community. It imposes punitive measures on foreign firms and nationals for questionable reasons and attempts to exert extra-territoriality in extending the remit of US law.

After the tragic events of 9/11/01, there have been profound changes in the attitudes of the US authorities in response to public concern about terrorism on US soil. Homeland security concerns on the part of the US have, in turn, led to reciprocal concerns on the part of global financial firms about the stability, reliability and consistency of US policy-making under stress. There is now a perception on the part of capital surplus countries that hold large USD reserves of a heightened risk of foreign asset seizure; that has happened in the case of Iran. Consequently, a subtle change in attitudes has occurred on the part of foreign financial players about the wisdom of putting too many eggs in the New York IFS basket, simply as a matter of political risk-management. That perception, along with the UK's better regulation, has driven IFS business from New York/Chicago to London since 2001.

What London has achieved as a standard-setting GFC is surprising; especially given some weaknesses that might otherwise have seemed insuperable. London lacks the intellectual depth of academic financial economics in the US. American minds have dominated the development of modern quantitative finance from 1952 onwards. Yet, although short on theory and skills in quantitative finance, in practice London is not at a significant disadvantage where theoretical financial innovation is concerned. Financial innovations in instruments and markets are now diffused very swiftly.

London has established its own reputation for innovation: *e.g.*, in financial regulation and in arranging complex financial packages for politically sensitive privatisations and PPPs. In these areas it is

well ahead of New York. It lacks as large a national economy as other IFCs (*e.g.*, New York, Frankfurt, Tokyo, and now Shanghai). Yet London has positioned itself to serve the EU economy as the premier IFC with other continental IFCs playing a subordinate role. Thus, London has leveraged its inherent strengths and flexibility to overcome some of its apparent handicaps.

3. New York/Chicago as the GFC for the Americas and the World

New York and Chicago are financial centres that reflect the overwhelming dominance of the US economy. Chicago has a strong position in exchange-traded derivatives. New York accounts for virtually all other financial activities in the US. But in both cities, the provision of IFS is secondary to serving the needs of the domestic economy whereas in London, IFS assumes primacy.

New York is home to NYSE and NASDAQ, the two largest stock exchanges in the world measured by the number and dollar value of transactions. It is also home to the New York Mercantile Exchange, the largest global commodity futures exchange. Virtually every major financial conglomerate and bank in the world, American-owned or not, has a presence in New York. Indeed any financial institution anywhere that deals directly in US dollars in large amounts finds it essential to maintain such a presence. New York has a bewildering array of integrated, as well as specialised, financial firms engaged in moving money from one place to another, inventing new trading strategies, raising capital in all markets and using derivatives to reshape risk.

London and other IFCs replicated the human capital and computer technology in their IFS industries to match New York/Chicago in terms of the instruments and contracts they could offer global clientele, and the platforms needed to trade them. London, on the other hand, led the way with innovations in financing privatisation and PPPs which New York did not keep pace with.

Despite these developments in each of these two competing GFCs, the overwhelming cerebral power reposed in the American academic establishment keeps New York ahead of London intellectually as the 'Silicon Valley' of finance with a key role in continued financial innovation. Box 3.2 shows one example of the fascinating interplay between the ideas of academic economics and the operations of real world finance. Another famous example of such an interaction is the pair of academic papers (Christie and Schultz, 1994; Christie *et al.*, 1994) which led to the demise of the erstwhile NASDAQ market design.

While New York continues to have remarkable strengths based on its intellectual community, to extend that metaphor, it creates the space and the precedent for Mumbai as an IFC to relate to New York/Chicago and London in the same way that Bangalore (and now many other centres in India) have prospered by relating to Silicon Valley.

The tides of global financial flows have been turning dramatically since 1990. A previously closed *second world* entered the global economy in 1990 as a full participant creating new demands and needs for IFS. After the lost decade of the 1980s, the developing (or third) world has grown substantially. It has become a more significant part of the global economy; despite ructions such as the Mexican debt crisis of 1994, followed by the Asian crisis of 1997–99 and the Turkish, Russian, Brazilian and Argentina debt crises of 1998–2002. The US has turned from being the world's largest creditor to being its largest debtor in a span of 20 years. Large fiscal and current account deficits in the US are now being financed largely by international investors. Table 3.4 shows purchases and sales of long-term US securities by foreign investors. Table 3.5 indicates US investor purchases and sales of long-term foreign securities. But, although global financial flows have reversed, the underlying transactions are still being done in New York.

The eight factors that contributed to London's success as an IFC have also contributed in large measure to the success of New York. But, over the last five years,

Box 3.1: *A History of New York's emergence as an* IFC

In the 17th century when London had begun operating as an IFC, New York was still in its infancy. The end of that century saw New York become a trading city when American wheat entered European markets. Through the first half of the 18th century, New York's role in shipping agricultural exports to Europe was enhanced. But it gradually became a gateway for reverse British and European investment in American farming, ranching and mining through the late 18th and 19th centuries. Until the War of Independence in 1776, independent finance was nonexistent in America. That was because local commercial banks were prevented from emerging. The prevailing mercantile theory in Britain and Europe was that capital invested in colonies should be loaned by imperial countries (to benefit from annual returns) rather than be generated and retained in the colonies for their own use through reinvestment.

After 1776, the first task of New York financiers was to help the new US government fund the huge war debt that had been run up for the war of independence. When that was accomplished New York faced competition from Philadelphia and Boston as a domestic financial centre. In 1814, a stock exchange was started in New York to compete with exchange-traded equities in Philadelphia. From 1817–29, the Erie Canal (linking the Great Lakes to the Atlantic) was built. It transformed America's commercial geography and proved immensely profitable. But it required an enormous amount of debt financing. Most of that was arranged in New York with a significant proportion being sourced from Europe. That canal opened up unprecedented trade opportunities. It made the produce of the American mid-west exportable to the world. In turn it increased needs for financing trade and investment in New York. Following the success of the Erie Canal, Wall Street grew from strength to strength, focusing on raising debt and equity for canals, railroads, and shipping companies as well as the cotton and wheat trade. Its role expanded as the West and the Pacific Coast were opened up and settled by successive waves of immigrants from Europe and Asia.

By 1850, New York had become the prime US financial centre. Its growth was related to a burgeoning domestic economy and its increased trade (similar to where Mumbai is now). The emergence of the US as the largest economy in the world (overtaking the British Empire) at the end of the 19th century, inevitably made demands on the domestic and international financial systems. Between 1860–1914 these needs were met as much by London as by New York. The American Civil War placed great demands on New York in funding the war on the side of the Union, and thereafter, for the reconstruction and revival of all the 'united states', and for supporting continued migration and expansion of large territories in the West.

The *internationalisation* of New York occurred in the early 20th century when Europe was exhausted after internecine conflict that extinguished a generation. Interrupted temporarily by a global depression in 1929–32, New York's role as an IFC grew relentlessly between the two world wars (1918–38) as American corporations and financial firms invested abroad, particularly in the UK, Western Europe and Latin America. During World War-II (1939–45), the US was the main production engine for the Allied Forces. New York helped Washington to finance that war on a lend-lease basis and arranged war loans for its allies (mainly the UK, Canada, Australia and New Zealand as well as the USSR). New York's role as a GFC became more significant when the Second World War ended. In 1945 the US was the only economy capable of providing the finance needed to reconstruct and revive the world economy.

In the half-century between 1918–70 the US led the free world and dominated global finance. But, the US economy became overextended in the early 1960s. Europe was resurgent with the completion of reconstruction and revival of its war-shattered economies. European and Japanese export engines went into overdrive in the 1960s. American encouragement for reviving Europe's capital markets, as well as its own regulatory shortcomings, led to the creation of the Eurodollar and Eurobond markets which boosted London's revival as an IFC. Although the breakdown of Bretton Woods in 1971 triggered a gradual slide in the relative standing of New York, it still managed to lead London in financial innovation from the 1970s to the present.

New York pioneered the transition from *plain vanilla* to post-modern finance. It did so by incorporating risk management features into financial products and services. That stream of innovation has transformed the nature of global finance and of IFS. Although futures had existed for some time in the agricultural and mineral commodities businesses, American ingenuity led to conceptualising tradable financial instruments for risk management *i.e.*, derivatives. Currency futures – introduced at the Chicago Mercantile Exchange (CME) in 1972 – were the first exchange-traded derivatives. In 1973, the Chicago Board Options Exchange (CBOE) was formed, and the Black/Scholes formula for pricing options was developed at MIT and Bell Labs.

Until 1990 the US was the world leader in computer technology and in financial economics. It probably remains so today although it now shares the space it once dominated totally with a number of other countries. Given the monetary and psychic income returns involved, many leading academics from top US universities migrated to Wall Street. They played an important role in key global firms, such as Fischer Black, who was partner at Goldman Sachs, and Merton and Scholes, who were involved in LTCM (Dunbar, 2000). The marriage of new computer technology with new financial economics resulted in explosive growth in financial sophistication in the 1980s. That enabled New York to maintain an intellectual lead even as it was ceding ground in IFS trading terms. The substantial presence of leading American financial firms in London led to the rapid transmission and diffusion of such innovation from New York to London and beyond.

By the same token, the wave of privatisation unleashed in Britain by the Thatcher government in the 1980s led to London becoming the leading IFC for conceptualising the financial engineering to achieve politically and socially sensitive financial transformations. As privatisation and denationalisation were propagated around the world by the World Bank and IMF during the era of structural adjustment (1981–97), London played a pivotal role in advising on, and arranging, most of these transactions in global capital markets. In the 1990s, London continued to play an innovative role in conceptualizing and executing complex financial/legal structuring of public private partnerships (PPPs) under the private finance initiative promoted by the Blair government, to augment limited public resources for investment in physical and social infrastructure. That specialised expertise provided another string for its versatile bow. So, at the turn of the 21st century, the intellectual/innovative edge that New York and Chicago had in creating and trading derivatives was becoming blunted.

global financial firms have begun moving key IFS operations from New York to London. This is partly attributed to London's more benign regulatory environment and partly to post-9/11 neurosis in the US.

Traditionally, New York firms had operated under a regulatory regime that was, in most respects, more open to innovation than those that governed other IFCs, with the exception of London.

Box 3.2: *Futures on the Value Line Index: A case study in the interplay of ideas and finance*

The US pioneered the idea of futures markets being applied to underlying contracts other than those for physical commodities. This began with currency futures in 1972, the success of which immediately led to attention on the stock market index as an underlying for derivatives. Operationalising stock index futures required a key innovation – cash settlement. Cash settlement is now mainstream in derivatives trading, and many commodity futures are now settled in cash. But, though obvious and standard now, it was an important innovation at the time. In all countries, cash settlement has presented legal difficulties owing to laws against wagering.

Three exchanges – the Chicago Board of Trade (CBOT), the Chicago Mercantile Exchange (CME) and the Kansas City Board of Trade (KCBT) – engaged in developmental work leading up to stock index futures trading. When the legal constraints were resolved, the regulator gave the green light first to KCBT since their application had been filed first – as early as 1977. Trading began in February 1982. The index used by KCBT was the Value Line Index. It was a geometric mean of prices of 1,650 shares. The pricing of futures on such an index presented a challenge that was not understood at the time. The market coped bravely with the situation, treating the futures as an ordinary futures product, where the basis should be positive and should roughly reflect a cost of carry applied on the spot price.

In 1986, a pair of economists named T. H. Eytan and G. Harpaz wrote a paper in *Journal of Finance* titled "The Pricing of Futures and Options Contracts on the Value Line Index" where they worked out the new mathematics of how futures prices and arbitrage worked when the index was a geometric mean of prices (Eytan and Harpaz, 1986). Remarkably enough, their arbitrage procedures implied that the correct basis (i.e. the gap between the futures price and the spot price) for the KCBT index futures contract should be negative.

It is widely believed that Fischer Black, who was at Goldman Sachs at the time, took up these ideas and rapidly implemented them as an operational trading strategy (Ritter, 1996). As a consequence, almost immediately after the publication of Eytan and Harpaz, 1986, the basis on the KCBT flipped from a positive basis (which was based on traders wrongly thinking that the geometric mean of prices index was like any other index) to a negative basis (which correctly flowed from the arbitrage strategy of Eytan and Harpaz, 1986). Once this arbitrage capital and mechanism was in place, the KCBT index futures was priced correctly (Thomas, 2002).

This story involves five remarkable elements:

1. The innovative spirit of the US financial industry in pushing on from commodity futures to currency futures to stock index futures;
2. The effort at KCBT to get going on such a product even if it involved an awkward geometric-mean-of-prices index;
3. The engineering approximation of traders who tried to make do in trading this index even though the theory was not developed;
4. Scholars like Eytan and Harpaz who solved the puzzle of how to arbitrage and price the product; and
5. Scholars like Fischer Black who were able to rapidly turn the idea from the academic literature into a trading strategy backed by enormous capital at Goldman Sachs, and thus bring market efficiency to the market.

Table 3.4: Foreign purchases and sales of long-term US securities (in USD mn)

	2002	2005
United Kingdom	186,691	361,822
Rest of Europe	57,064	158,173
Caribbean Banking centres	76,144	126,289
Japan	91.412	81,955
Rest of Asia	109,314	188.435
All other countries	26,940	126,272
Total	547,565	1,042,946

Source: Treasury International Capital Reporting System

Table 3.5: US investor's purchases and sales of long-term foreign securities (in USD mn)

	2002	2005
Foreign bonds	−28,492	28,603
Foreign stocks	1,493	126,735
Total	−26,999	155,338

Source: Treasury International Capital Reporting System

However, as other nations moved to liberalize their financial markets, while the US came up with legislation like Sarbox, this advantage has eroded dramatically. The UK is now ahead of the US in terms of its regulatory approaches, attitudes and practices. The *rules-based* regulation of the US faces severe competition from the *principles-based* regulation of the UK. That competition is being worked out in the global marketplace as country after country opts for the UK model.

But whether New York leads London as an IFC, or vice versa, is less relevant than the growing reality that these two centres are beginning to increasingly operate as a single linked entity. The same global financial firms operate in, and dominate, both GFCs. In 2006 a move was made by exchanges in New York to acquire London's main stock exchange. IFS activity in these two centres is being undertaken within the same ten major global intra-group/inter-corporate brand umbrellas. The booking of any particular IFS transaction by a given firm is dependent on which jurisdiction offers the most favourable regulatory and tax environment for that activity.

What is now happening between London and New York may well extend to

bringing all *significant* IFCs within a single linked operating network that constitutes an integrated web of global finance. In that sense the specific IFS-industry based linkages between/among ***global city* IFCs** may supersede the importance of more general linkages between/among their national and regional economies. In such an environment, an Indian IFC needs to blend into that unified global financial industry.

Both London and New York will remain at the top of the GFC heap for some time to come, probably well into the middle of the 21st century. New York will represent the economic weight of the US and North America in the world economy and London will do the same for the EU. Singapore and, to a lesser extent, Tokyo (as well as other smaller IFCs) already serve East Asia. But with the growing weight of China and India, new IFCs will emerge, especially in these two countries. However, history suggests that Singapore and the newer IFCs will take decades to equal or surpass London and New York. While relative changes in the economic strength of countries (such as China and India) may occur quite rapidly, the more fundamental changes in institutional arrangements for handling global trade and investment transactions through IFCs will continue to occur more slowly, even in the 21st century.

Thus, while the US economy was larger than the British Empire by 1870, it still took New York another fifty years until 1918 to exceed London in importance as an IFC. By the same token, while the relative size of the US economy in the world economy has been steadily diminishing since the mid-1960s, and has now been overtaken by the enlarged EU, New York still remains one of the world's two key GFCs.

While new IFCs will spring up in China and India – if not by design then by default – they will take time to establish themselves and reach the same level of size, credibility and competitive ability as the premier league GFCs; even though transformational changes (such as in Dubai) are now occurring in a shorter time span than they did in earlier centuries.

The lessons that London and New York convey is that as other economies grow to rival the two gigantic economic blocs of the US and EU– ASEAN, China, India seem to be the main contenders to do so in the 21st century – they will need equivalent IFCs to represent their financial and economic interests in the world economy in the same way and with the same skills and capabilities. But the most important lesson is that for IFCs in China and India to function as effectively as those that already exist, they will need to invite and embrace the same global players – who know no particular nationality of ownership as such – that are already operating in London and New York (and in Singapore, Dubai, Hong Kong, Sydney, Amsterdam, Paris, Frankfurt and other IFCs as well).

IFCs do not succeed in providing IFS effectively and competitively if, by policy design or regulatory preference, they remain closed and protected to favour only domestic players. Nor do IFCs succeed if the policy-makers attempting to promote them focus exclusively on the domestic scene, and remain unconcerned about what is happening in the world outside. Most of all, IFCs are unlikely to succeed or be competitive if financial system regulators and institutional operators do not adapt swiftly and responsively to changing global best practices and norms of regulation, risk management and corporate governance.

4. Singapore as the ASEAN/Asian GFC

In the 1970s and 1980s, many East Asian countries emulated the success of Japan in the 1960s and grew very rapidly. They increased employment with labour-intensive manufacturing exports and low barriers for imported inputs. Unlike Japan, they relied on FDI. Ironically, much of it was from Japan. The most successful East Asian economies – which provided a model later for China – were Hong Kong, Taiwan, and Singapore; followed in quick succession by South Korea, Malaysia, Thailand and Indonesia (although it suffered a near-fatal reversal in 1997). Singapore transformed its economy rapidly and sustained a high rate of growth between 1960–80. It adopted an export-orientated manufacturing hub

strategy with state-driven development of a regional transport and communications services hub based on state-of-the-art infrastructure (airports, ports, container terminal, airline, and shipping.)

By the late 1970s, Singapore was experiencing the limitations of depending for growth on transportation and FDI-driven manufacturing. In the early 1980s, it realised that to sustain its growth trajectory, and become a developed country, it required a shift in focus from low-cost manufacturing to high-value services. Singapore spotted IFS as a key opportunity for services-led growth in the world market. Its experience in attracting the regional headquarters of manufacturing MNCs was applied to global MNCs in finance through efforts to establish an IFC that were scripted and controlled by the government and implemented by the Monetary Authority of Singapore (MAS).

Singapore's IFC strategy was in marked contrast to the *laissez faire* approach of Hong Kong whose strengths in providing IFS arose purely as a side effect of liberal economic policies and market driven developments. But, until 1981, Hong Kong had benefited from being an exclusive gateway for the world into a closed China.

Since 1978, the Singapore government has been making profound financial sector reforms, opening new financial markets, introducing full convertibility, and enacting regulatory and fiscal incentives to attract foreign financial institutions to Singapore. It has reduced public ownership of banking firms and created a Singapore dollar bond market less to serve its own needs than to acquire credibility in the global IFS market.

One of the main objectives of MAS is to supervise the banking, insurance, securities and futures industries, and develop strategies in partnership with the private sector to promote Singapore's role as a GFC. As in the case of London, *internationalisation,* rather than a preoccupation with domestic finance, is at the core of MAS' perspective on its financial services industry. This is in marked contrast to the role of the monetary authorities in India whose attention (understandably) is on the domestic financial system, and whose concerns about IFS are, at best, peripheral in nature.

Singapore's strategy to become a GFC and a global city has proven successful. When other Asian countries had capital controls and policies inimical to the growth of their financial systems, Singapore positioned itself as a venue with no capital controls and sophisticated financial regulation. It became a genuine RFC for ASEAN as well as a GFC linking ASEAN to global markets. Foreign financial firms in Singapore have grown from fewer than 100 in the mid-1970s, to almost 500 in 2005. A full range of financial products and services are offered, including currency trading, derivatives, loan syndication, M&A, insurance, wealth and asset management and capital market activities. Financial services (mostly IFS) now account for nearly 12% of GDP.

When it first embarked on developing an IFC, Singapore had weak human capital and lacked world class intellectual depth in its universities. However, the presence of global financial firms in Singapore attracted highly skilled foreign workers (e.g. from India) to migrate to Singapore to work in finance as well as related services such as accountancy, law, management consultancy, and information technology. Expatriates hold most senior management positions in finance and banking, and constitute almost 50% of the finance workforce. Singapore has taken significant steps towards developing world-class universities by depending on foreign academics.

MAS initiated the establishment of SIMEX, now called Singapore Exchange Limited (SGX), which was the first de-mutualised and integrated securities and derivatives exchange in Asia. SIMEX attracts global issuers for listing, and trades derivatives on global underlying contracts such as the Japanese Nikkei 225 index or the Indian NSE-50 index. In 1984, SIMEX obtained a landmark contract with *mutual offset* for the Eurodollar futures traded at the Chicago Mercantile Exchange (CME). This enabled positions at CME to be fluidly traded at SIMEX and vice versa.

Singapore is now the world's fourth most active currency trading centre after London, New York and Tokyo. Daily trading volume in 2004 averaged nearly US$ 157 billion.

Table 3.6: Financial market growth in Singapore

	1996	2005
Domestic banking units' external asset and liabilities (S$ mn)	60,302.3	117,685.9
Equity market turnover + market capitalisation (S$ mn)	88,855.1	205,164.4
Number of listed companies (SGX)	323	664
Foreign exchange market turnover (S$ mn)	44,974,690	70,734,830
Exchange traded derivatives turnover (number of contracts)	22,568,545	26,026,128

Source: Monetary Authority of Singapore

Singapore benefits from Indian restrictions on finance by capturing business that Indian regulatory and capital controls prevent. An active 'non-deliverable forwards' market exists in Singapore and Hong Kong on the INR-USD exchange rate, and there has been a mushrooming of interest rate derivatives on Indian underlying contracts.

Over the years, Singapore's financial sector has matured from providing basic services, to sophisticated, technology-driven, innovative IFS offerings. As a result, the financial services sector has developed simultaneously with the growth of the Asian Currency Unit (ACU), the Asian Dollar Bond (ADB) market and the Singapore Dollar Corporate Bond (SDCB) market.

Like the Eurodollar market, the Asian dollar market (ADM) has played a significant role in Asia's economic development. Through the ADM, financial institutions channel surplus funds from regional and international financial markets to finance development projects in ASEAN. Since its launch in 1968, the ADM has grown 15 times; it stood at US$ 509 billion by end-2003. Table 3.6 shows the growth in the equity, foreign exchange and derivatives markets over a ten year period.

Since 1998, several initiatives have boosted the growth of the Singapore bond market. The issuance of more Singapore Government Securities (SGS) was aimed at building market depth and liquidity while the issuance of new 10 and 15-year SGS served to extend the benchmark yield curve. Rules relating to the use of the Singapore Dollar by foreign entities were liberalized to enable foreign players to participate more actively in issuing Singapore Dollar bonds. These have resulted in a series of landmark deals including the first Singapore Dollar foreign entity bond issued by the World Bank's private sector affiliate – the International Finance Corporation, in 1998.

Singapore has established itself as a reliable and secure safe haven for private wealth management by wealthy individuals in ASEAN (particularly the wealthy and influential overseas Chinese community in Asia) resulting in a vibrant private banking industry. Given the difficulties with political stability of many neighbouring countries, Singapore has played a role as a safe haven which is reminiscent of that played by Switzerland in the 19th and 20th centuries in unstable Europe.

More than 200 international asset management firms are located in Singapore. This process has been assisted through a mechanism where asset management companies domiciled in Singapore are more able to obtain contracts from the government portfolios. Total assets under management (AUM) stood at S$ 465.2 billion at the end of 2003.

Many of the world's leading names in insurance broking, captive management and risk management are present in Singapore. In addition to meeting the needs of the domestic market, numerous re-insurers and captive insurers use Singapore as a base to write risks in the region. Offshore insurance business has become a major component, accounting for more than half of the total general insurance business written. Singapore is the largest domicile for captive insurers in Asia.

Singapore is a remarkable success story about the extent to which the government was able to see the importance of an IFC in the late 1970s – roughly 30 years before this issue achieved salience in India. The build-up of modern knowledge in economics and finance at MAS, and the supportive role played by MAS in the

development of sophisticated finance, are both accomplishments that bear great lessons for India.

5. Dubai as a RFC for the Middle East and South Asia

The newest entrant into IFC space is Dubai, which has long pursued an economic strategy based on commerce and trade seeking to reduce dependence upon oil-related activities. The DIFC was setup in September 2004 and has been actively encouraging global financial firms, including Indian institutions, to set up operations there.

Most successful IFCs in the world reflect the organic strengths of a city gained from a legacy of geography and commercial history, as well as the potential for becoming a 'global city'. Singapore exemplifies how an IFC can grow out of a policy effort at cultivating relevant strengths such as financial regulation and taking advantage of its geography in the context of the regional ASEAN economy. It has also exploited to the full its connections (trade, investment and ethnicity) with China and India.

By contrast, DIFC represents an enclave approach brought to bear on developing another IFC in the context of an extremely small domestic financial sector and no established stature as a regional provider of IFS for the Middle East and Persian Gulf. That role, until now, has been dominated by Bahrain. Dubai is essentially a township surrounded by 1.2 million square miles of desert. DIFC's aim is to have 20,000 people providing a wide array of IFS to its region and to the world.

DIFC is providing world class infrastructure to global financial firms for their offices, communication and transportation. As with Singapore, a good quality airport, a world-class airline, and excellent telecommunications facilities are already in place.

In the case of both Singapore and Dubai, there is full capital convertibility. In addition, Dubai has set up unique tax privileges, declaring a zero tax rate on profits with a 50-year tax holiday. While the OECD has embarked on a synchronised effort at preventing countries from helping foreigners evade taxes, Dubai is in a unique position by virtue of having a zero income tax for *locals*.

The institutional structure at DIFC involves a series of specialised agencies with supervisory and regulatory tasks: *i.e.*, DIFC Financial Services Authority, DIFC Courts and the DIFC Registry of Companies. These institutions will allow DIFC to operate independently of UAE federal law while still being under its broad umbrella.

These institutions are being staffed with world class talent recruited internationally. As with Singapore, this institutional infrastructure is supportive of global financial firms that use modern practices, and are fairly effective at supporting the innovative deployment of new kinds of financial products and practices. In terms of organised financial trading, Dubai International Financial Exchange and Dubai Gold and Commodities Exchange were started in September and November 2005.

DIFC is a very recent entrant in the IFC space. It is too early to tell how successful it will be. ICICI Bank and Kotak Mahindra (UK) have set up offices in DIFC, where a total of 73 global firms, including the likes of ABN-Amro, Lehman Brothers, Merrill Lynch, Morgan Stanley, JP Morgan Chase, Goldman Sachs International, Franklin Templeton Investment, Citigroup Global Markets, Deutsche Bank and Barclays Bank, have begun operations. However, as yet, DIFC is more of a location where staff is placed by global firms to book transactions and attract clients, rather than undertake the range of IFS activities typically found in a fully-fledged IFC.

Dubai as a city has recorded a stunning rate of growth and transformation over the last 15 years. But it has the disadvantage of being located in a highly unstable and volatile neighbourhood – from the viewpoint of security, politics and economics as well as growing social instability exacerbated by ethnic tensions – that is unlikely to be perceived as totally safe by global investors in the foreseeable future.

But, from the perspective of Indian corporates, Indian HNI with growing wealth management needs, and most importantly, a growing number of increasingly powerful and capable private Indian financial institutions, the DIFC is being seen as a convenient and easily accessible alternative for meeting their IFS needs in the immediate

neighbourhood (a mere 2.5 hour flight from Mumbai).

That opportunity will be evaluated – along with Singapore – by every Indian financial firm that believes its capacity to expand, by providing essential IFS to their large client base, is being artificially restricted in the present Indian environment.

Domestic and Offshore demand for International Financial Services (IFS) in India

chapter 4

1. Implications of a large, rapidly growing home market for IFS

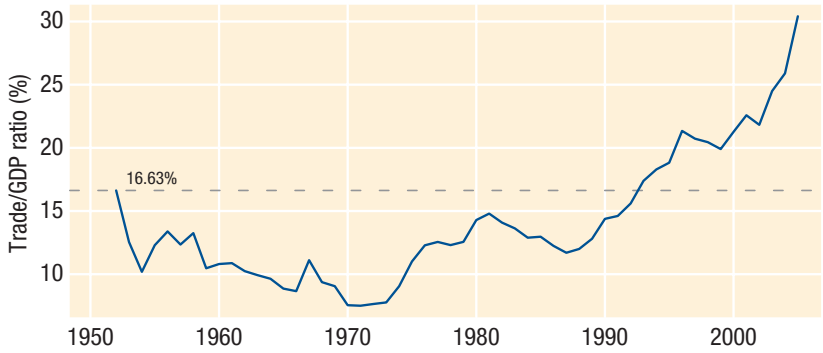
A little appreciated aspect of India's impressive growth from 1992 onwards is that it has resulted in even faster integration of India with the global economy and financial system. There has been a rapid escalation of two-way flows of trade and investment. Since 1992, India has globalised more rapidly than it has grown, with a distinct acceleration in globalisation after 2002. Capital flows have been shaped by (a) global investors in India (portfolio and direct); and (b) Indian firms investing abroad (direct). Indian investors – corporate, institutional and individual – have as yet been prevented from making portfolio investments abroad on any significant scale by the system of capital controls.

By the same token, Indian firms have borrowed substantially abroad. But foreign firms and individuals have yet to borrow from India. Capital controls still preclude that possibility.[1] Despite the controls that remain, these substantially increased two-way flows reflect an increase in demand-supply for IFS related to trade/investment transactions in India. Put another way, there has been an increase in IFS consumption by Indian customers and by global customers in India. Demand for IFS from both has been growing exponentially.

Cumulative two-way flows in 1992–2005 were a multiple of such flows in 1947–92. The degree of 'globalisation-integration' that has occurred in the last 15 years, since reforms began in earnest, is much larger than in the 55 years between independence and India embarking on 'serious' reforms. We have made up for six lost decades of economic interaction with the world in a decade and a half. Still, what has happened over the last 15 years is a small harbinger of what is to follow over the next twenty: particularly if the current growth rate of 8% per annum is accelerated to 9–10% as is evocatively being suggested, and if India continues to open

[1] In saying that, however, it has to be recognised that, over the past decade, the US Treasury has effectively 'borrowed' over US$ 110 billion from India. But, it does not appear that way because that 'borrowing' is seen as an investment of India's official reserves; *i.e.*, as meeting India's investment needs, rather than meeting the deficit financing needs of the US. The fact is that they are meeting both, because there is no such thing as a one-way financial transaction. By the same token European governments have 'borrowed' another US$30–40 billion or so in India as well. Such 'borrowing' may rise to US$ 200–250 billion or more by 2010. One problem created by not liberalising the domestic financial system, and removing capital controls more rapidly to permit more private investment abroad, is that such borrowings (by external issuers of reserve obligations) will remain increasingly confined within the ambit of 'official finance' rather than being marketised. That will result in concentration risk in India's reserve portfolio. It will make India vulnerable to increased currency, interest rate and political risk as reserves keep growing. Instead India's reserves could (unlike China's) be made more manageable by opening the capital account to encourage development of a more efficient, open and robust financial system that promoted rapid growth and global integration simultaneously. In that event Indian assets might not be concentrated only in US Treasuries or similar Euro obligations. They would be spread across a wider risk-return matrix of securities issued by the official and corporate world. That would yield higher returns in an overall economic 'welfare gain' sense if not for the central bank.

Figure 4.1: Evolution of the trade/GDP ratio



up the economy on both trade and capital flows.

This chapter illustrates the impact that economic growth in India is having on two-way financial flows by making them quantitatively explicit. The typical discussion about an Indian IFC exporting IFS (especially made by those arguing for locating such an IFC in a SEZ) has been analogous to that for software exports: *i.e.*, a sterile relationship between Indian producers and foreign customers of 'support-services'. However, in the case of IFS, India is itself a large, fast growing customer of IFS.

Conservative estimates of IFS consumption in India just a few years out, amount to $48 billion a year. That is more than the output of many Indian industries today. Domestic customers for IFS are India's to lose through neglect. If India does not make significant financial reforms **now**, this IFS demand will be continue to be met by IFS providers in New York, London and Singapore. Dubai may command an increasing share of that business in the coming years.

The HPEC believes that such reforms are urgent to unshackle the Indian financial system, and make it globally open and competitive, in the same way that Indian industry was freed and obliged to become globally competitive a decade ago. In the absence of a credible Indian IFC, the more capable Indian financial firms will have no option but to establish full-scale operations in IFCs elsewhere, simply to retain their customer base and not lose it to competing foreign financial firms that can provide their Indian customers with a more complete array of IFS. But, these customers constitute India's 'hinterland advantage'. India's attempt to establish an IFC in Mumbai will be aided by retaining such customers on the books of Indian financial firms. Dubai and Singapore have to go out of their way to attract them. India's own IFS customer base contributes a critical mass and induces economies of scale in a way that was not available to the Indian software industry in its nascent phase.

The local-customer argument should not be confused with 'self-sufficiency'. A self-sufficiency rationale for IFS provision from Mumbai – implying an autarkic mindset that has resulted in past failures – would be counter-productive. The Committee is not arguing that, because India has a rapidly growing need for IFS, only Indian financial firms should meet it. What it is arguing is that India's demands for IFS are large and growing rapidly; it would be cavalier, therefore, if not negligent, to forego using that 'home-market advantage' for developing IFS-provision capacity in a competitive IFC.

Such capacity should involve Indian and global financial firms operating in Mumbai to serve the world (and the home market) as, or more, competitively than extant IFCs are able to. That is not a self-sufficiency argument. It is an argument for using the advantage of a large and growing home-market for IFS to develop an IFC that can immediately achieve: (a) economies of scale and scope; (b) global competitiveness; and (c) substantial revenues from IFS exports.

A domestic customer base with rapidly growing IFS needs will provide an IFC in Mumbai with a comparative and competitive advantage that can be sustained for the foreseeable future. That is what the US, EU and Asean economies provide as hinterlands for New York, London and Singapore. These three GFCs have not grown through self-sufficiency: they grew because they were effective, competitive and innovative. That is what Mumbai should strive to be.

2. India's growing integration with the world

India's post-independence retreat into autarky till 1991, followed by hesitant

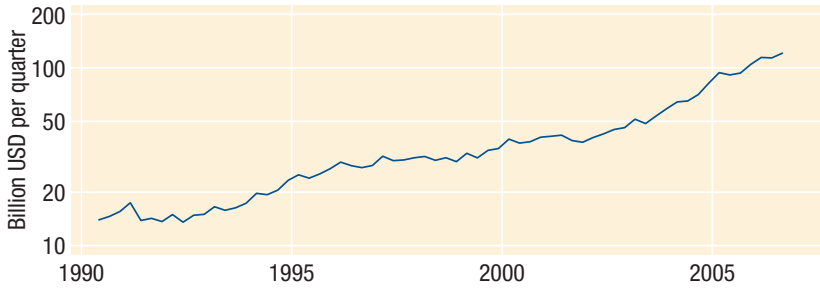
reintegration into the world economy since 1992, is illustrated in Figure 4.1 (Bhagwati, 1993; Desai, 1999; Panagariya, 2005). It measures the size of *merchandise trade* compared with GDP. At independence, the merchandise trade/GDP ratio stood at a respectable 16.6%. Almost all of it at the time involved transportation by sea. In the following decades, the trade/GDP ratio fell sharply - to below 10% - at a time when world trade was growing dramatically, assisted by technological improvements in transportation and communications. East Asian countries successfully harnessed world growth in trade to eradicate poverty. But India turned inwards, losing out on growth and faster poverty reduction for four decades.

The lowest Trade/GDP ratios in India were seen in the late 1960s to the mid 1970s which was an era of increasing state control of the economy. The timid liberalising reforms of the 1980s did not emphasise globalisation. As a result, the trade/GDP ratio actually fell through most of the 1980s. What distinguished the 1991 reforms from previous desultory attempts was the rapid growth of trade and investment related financial flows that resulted from openness. They have gathered steam continuously since. India reverted to its 1952 trade/GDP ratio (16.6%) in 1993. China had achieved that level (of 16.6%) in 1980 - i.e. Chinese trade reforms were roughly 13 years ahead of India. But then India opened up (1991–92) 13 years after China (1978).

Three interesting facts emerge from the graph above:

- The trade/GDP ratio in 1952 (16.6%) was 2.2 times bigger than the lowest-value of 7.5% reached in the 1970–73 period.
- The most recent trade/GDP ratio, in 2005–06, of 36.1% is almost five times the lowest-value. In other words, the Indian trade-GDP ratio dropped by 2.2 times with the retreat into socialism, and has recovered by four times thereafter. That suggests a six-fold turnaround from the nadir.
- The rate of change of the trade/GDP ratio has accelerated palpably in recent years. Insights into why India's globalisation has accelerated in recent years suggest that projections for the future should take into account a faster pace of change in recent years, when compared with the *average* pace of change that has taken place from 1991 to 2006.

Figure 4.2: Growth of gross flows on the current account



India has been particularly successful in exporting services. Services exports grew faster after the telecom reforms of 1999. Hence, the trade/GDP ratio for goods understates the extent of India's globalisation. This reinforces the sense of a palpable acceleration in the pace of globalisation from 1999 onwards.

Figure 4.2 shows the gross flows on the current account - summing across import and export of both merchandise and invisibles - in log scale. Starting from levels of roughly $15 billion a quarter in the early 1990s, gross flows have grown dramatically, and come to exceed $100 billion a quarter.

A casual examination of Figure 4.2 suggests that the rates of growth have not been constant over the 1990-2007 period. Using the econometrics of structural change,

Table 4.1: Growth rates for transactions volumes in **India's Balance of Payments**

CAGR 2004 over 1993	12%
CAGR 2006 over 1993	15%
CAGR 2006 over 2002	29%
CAGR 2006 over 2004	35%

Figure 4.3: Structural breaks in growth of gross flows on the current account

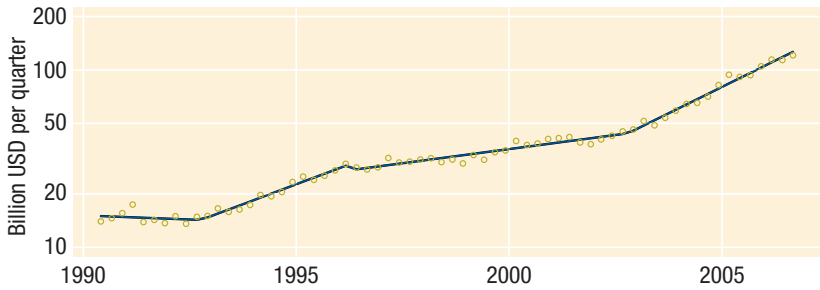
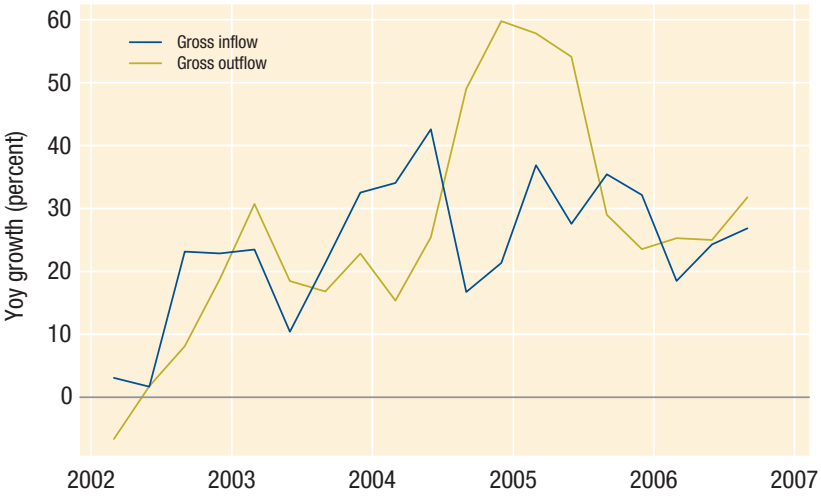


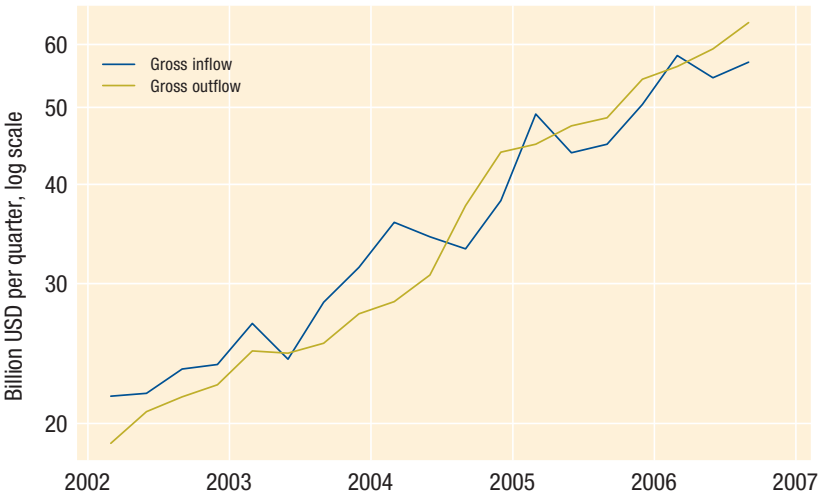
Figure 4.4: Year-on-year growth (in percent) of gross flows on the current account: 2002-2007



breakpoints are identified in the time-series. This analysis, shown in Figure 4.3 yields four phases of growth:

1. The early part is a continuation of the difficult conditions of the late 1980s, and actually involves a slighly negative slope.
2. Then the reforms of the early 1990s generated a positive trend, and gross flows grew from roughly $15 billion to roughly $30 billion by 1996.
3. This was followed by a period of slow growth until roughly 2002.
4. After 2002, the slope has sharply risen; indeed, the rate of growth seen in the post-2002 period exceeds the slope seen in the post-crisis recovery after the 1991-1992 reforms.

Figure 4.5: Gross flows (billion USD per quarter) on the current account: 2002-2007



These results encourage a focus on the 2002-2007 period as being different from the overall 1990-2007 experience, and being more pertinent for thinking about the coming decades. Figure 4.4 shows year-on-year growth rates of gross flows on the current account. Extremely high growth rates are seen for both the current account and the capital account, sometimes exceeding 50% per year.

Expressed in levels, gross flows on the current account for 2002-2007 are shown in Figure 4.5 in log scale. These values are in the units of billion USD per quarter. Both inflows and outflows have grown sharply, from the region of $20 billion per quarter in 2002 to $60 billion per quarter in 2007. This constitutes a *tripling in five years*.

An understanding of what drives rapidly growing demand for IFS in India needs to take into account two features:

- *First,* IFS demand is driven by increases in ***gross*** two-way financial flows that have occurred in transactions with the rest of the world. It is not driven by *net* flows. Demand for IFS by Indian customers – as well as foreign firms trading with and investing in India – is driven by imports ***and*** exports. India-related purchases of IFS are related to inbound **and** outbound FDI/FPI.
- *Second*, the annual growth of gross flows has accelerated dramatically in recent years. As shown in Table 4.2, India's external linkages have been transformed since 1991–92. **But that transformation has been more radical since 2002. The Indian economy is now exhibiting signs of a 'take-off' both in growth and even more rapidly in its globalisation (or integration with the world economy).**

Total two-way gross flows on all BoP transactions were $101 bn in 1992–93. They doubled to $237 bn in 2001–02. They increased another 2.8 times, to $657 bn in 2005–06. Doubling took nine years; the near-tripling took only four. What is noteworthy is that total gross transactions on India's balance of payments (BoP) accounts,

Table 4.2: Trends in India's Balance of Payments (in US$ billion)

		1992–93	2001–02	2003–04	2004–05	2005–06
INR/USD		30.65	47.69	45.95	44.93	44.27
GDP at factor cost		215.09	439.81	553.51	648.30	724.98
Current account (net)		−3.53	3.40	14.08	−5.40	−10.61
Merchandise	outflows	24.32	56.28	80	118.78	156.33
	inflows	18.87	44.7	66.29	82.15	104.78
Invisibles	outflows	7.41	21.76	25.71	40.63	50.54
	inflows	9.33	36.74	53.51	71.85	91.48
Total inflows		28.20	81.44	119.79	154.00	196.26
Total outflows		31.73	78.04	105.71	159.40	206.87
Gross flows on C Account		59.93	159.48	225.50	313.41	403.13
Gross flows on K Account		44.63	77.97	135.04	172.74	253.92
FDI	outflows	0.03	1.50	2.08	2.73	2.79
	inflows	0.35	6.23	4.46	5.97	8.52
Portfolio (equity + debt)	outflows	0.00	7.31	16.86	31.63	55.63
	inflows	0.24	9.26	28.22	40.54	68.12
Loans and Banking Capital	outflows	17.31	24.39	37.6	30.04	52.34
	inflows	20.67	25.47	38.39	44.26	57.88
Miscellaneous	outflows	1.4	1.52	2.62	3.40	3.85
	inflows	1.36	2.3	4.31	8.06	4.79
Net flows on K account	Total	5.16	8.56	16.76	31.03	24.70
Total external flows		101.29	237.45	360.54	480.04	657.05

Table 4.3: CAGR Growth comparison during selected reference periods (%)

		2002/1993	2006/1993	2006/2002
GDP at factor cost		8.27	9.80	13.31
Merchandise	outflows	9.77	15.39	29.1
	inflows	10.06	14.10	23.74
Invisibles	outflows	12.71	15.91	23.45
	inflows	16.44	19.19	25.62
Total inflows		12.50	16.09	24.59
Total outflows		10.52	15.79	27.60
Gross flows on Current account		11.49	15.79	26.09
FDI	outflows	54.45	41.72	16.78
	inflows	37.92	27.97	8.14
Portfolio (equity + debt)	outflows	148.81	119.72	66.09
	inflows	49.79	54.22	64.69
Loans & Banking Capital	outflows	3.88	8.88	21.03
	inflows	2.35	8.24	22.78
Miscellaneous	outflows	0.92	8.09	26.15
	inflows	6.02	10.18	20.13
Gross flows on K account		7.3	14.98	34.33
Total external flows		9.93	15.47	28.98

after having grown at a Compound Annual Growth Rate (CAGR) of 12% over the eleven years from 1992–93 to 2003-04, have **increased at a CAGR of 35% between 2004 and 2006.**

Table 4.3 shows a breakdown of the growth of gross flows. Large values characterise all components. Gross invisibles had been rising faster than merchandise trade in the Nineties, reflecting India's success with services exports, but merchandise trade growth has now caught up with the growth rates of services. The highest growth rates have been in FDI and Portfolio (FPI) flows, reflecting India's engagement with private capital flows.

As a proportion of GDP, external flows have increased from 47.1% of GDP in 1992–

Table 4.4: Trends in BOP components (as % to GDP)

		1992–93	2003–04	2004–05	2005–06
Current account (net)		**−1.64**	**2.54**	**−0.83**	**−1.46**
Merchandise	outflows	11.31	14.5	18.32	21.56
	inflows	8.77	12	12.67	14.45
Invisibles	outflows	3.45	4.6	6.27	6.97
	inflows	4.34	9.7	11.08	12.62
Total inflows		13.11	21.6	23.76	27.07
Total outflows		14.75	19.1	24.59	28.53
Gross flows on Current account		**27.86**	**40.74**	**48.34**	**55.61**
FDI	outflows	0.01	0.4	0.42	0.38
	inflows	0.16	0.8	0.92	1.18
Portfolio (equity + debt)	outflows	0.00	3	4.88	7.67
	inflows	0.11	5.1	6.25	9.40
Debt	outflows	8	6.8	4.63	7.22
	inflows	9.6	7	6.83	7.98
Miscellaneous	outflows	0.7	0.5	0.52	0.53
	inflows	0.63	0.8	1.24	0.66
Gross flows on capital account		**19.2**	**24.40**	**25.7**	**35.02**
Total external flows		**47.1**	**65.14**	**74**	**90.63**

Box 4.1: *Hong Kong and China*

Hong Kong evolved as an enclave IFC to provide IFS for traders dealing with a closed China. In the 1970s and 1980s, Hong Kong had superior institutions, and provided IFS to North Asia (China, Taiwan and Korea) as well as part of ASEAN (the Philippines and Vietnam which are closer to Hong Kong than to Singapore). But, as a colonial artifice, Hong Kong's role as an IFC was compromised, if not damaged, as China opened up and connected itself to the world through Shanghai and Beijing. Since the 1980s, China has not required its economic partners to deal with it exclusively through Hong Kong. With the gradual rise of Shanghai as an IFC, Hong Kong's role as an IFC serving China is diminishing, although it is unlikely to be completely eclipsed. At the same time ASEAN regional finance has gravitated decisively toward Singapore.

93 to 90.6% in 2005–06. Indian capital controls have resulted in slower growth of gross flows on the capital account; their share grew from 19% of GDP to 35%. The bulk of the growth has taken place on the current account, where India has reduced controls to a greater extent. This analysis illustrates in quantitative terms: (a) the potential generated by India's globalisation *i.e.*, the growth of two-way foreign trade and investment, for providing IFS through an IFC in Mumbai; and (b) the acceleration that has occurred in India's globalisation since 2002.

3. The impact of globalisation on IFS demand and on IFCs

When the economy of a country or region (*e.g.*, the EU or ASEAN) engages with the world through its current and capital accounts, a plethora of IFS are purchased as part-and-parcel of these cross-border transactions. The hinterland effect of a rapidly growing national or regional economy has been a crucial driver of growth in IFCs.

The 21st century has yet to unfold. But the emergence of China and India as global economic powers is likely (as in the US, EU and ASEAN) to provide the same raison d'etre for these two economies evolving their own IFCs to interface with those that serve other regions. History suggests that no country or regional economy can become globally significant without having an IFC of its own. But the emergence of IFCs has not always been a tale of growth potential and start-up followed by prolonged competitive success in exporting IFS to global markets. The trajectories of IFCs can wax and wane depending on how world events unfold.

Growth in Indian IFS demand is driven by the progressive, inexorable integration of the Indian economy with the world economy. As such integration deepens it triggers a variety of needs for IFS. For example:

- Current account flows involve payments services, credit and currency risk management.
- Inbound and outbound FDI (as well as FPI like private equity and venture capital) involves a range of financial services including investment

Table 4.5: Gross cross-border financial flows (in USD billion)

	Current account		Capital account		Overall		
	Inflows	Outflow	Inflow	Outflows	Inflows	Outflows	Total flow
1992–93	28	32	23	19	51	51	102
2001–02	81	78	43	35	125	113	238
2003–04	120	106	76	59	196	165	361
2004–05	154	159	99	68	253	227	481
2005-06	196	207	139	115	337	322	657

banking, due diligence by lawyers and accountants, risk management, etc.

- Issuance of securities outside the country involves fees being paid by Indian firms to investment bankers in IFCs around the world.
- The *stock* of cross-border exposure (resulting from accumulation of annual *flows*) requires risk management services to cover country risk, currency risk, etc. This applies in both directions: foreign investors require IFS to protect the market value of their exposure in India while Indian investors require the same services to protect the market value of their exposure outside the country.
- The shift to import-price-parity (owing to trade reforms) implies that Indian firms that do not import or export are nevertheless exposed to global commodity price and currency fluctuations. These firms require risk management services.
- Many foreign firms are involved in complex infrastructure projects in India. Indian firms are involved in infrastructure projects abroad. These situations involve complex IFS. The same applies to structuring and financing privatisations (especially those involving equity sales to foreign investors) and public–private partnerships which are becoming a growing feature in infrastructure development around the world.
- The growth of the transport industry (shipping, roads, rail, aviation, etc) involves financing arrangements for fixed assets at terminals (ports, etc.) as well as for mobile capital assets with a long life: *i.e.*, ships, planes, bus and auto fleets, taxis, etc. That is done by specialised firms engaged in 'fleet financing'. India is now one of the world's biggest customers of aircraft buying roughly 40% of the world's new output of planes in 2006. This requires buying 40% of the world's aircraft financing services.
- Indian individuals and firms control a growing amount of globally dispersed assets. They require a range of IFS for wealth management and asset management.

Outbound FDI by Indian firms in joint ventures and subsidiaries abroad has increased since 2004–05 as they have globalised. Foreign investments by Indian firms began with the establishment of organic presence, and acquisitions of companies, in the US and EU in the IT-related services sectors. Now they encompass pharmaceuticals, petroleum, automobile components, tea and steel. And, geographically, Indian firms are spreading well beyond the US and EU by establishing a direct presence or acquiring companies in China, ASEAN, Central Asia, Africa and the Middle East.

Such outward investments are funded through: draw-down of foreign currency balances held in India, capitalization of future export revenue streams, balances held in EEFC accounts, and share swaps. Outward investments are also financed through funds raised abroad: *e.g.*, ECBs, FCCBs and ADRs/GDRs. Leveraged buy-outs related to these investments and executed through SPVs abroad are not captured in the overseas investment transactions data. The Tata Steel-Corus transaction, for example, involved substantial IFS revenues going to financial firms in Singapore and London.

When two firms across the globe agree

Box 4.2: *Derivatives on Indian underlyings trading outside the country*

In the case of equity derivatives, Nifty futures started trading in Singapore at roughly the same time as trading started in India. However, over the years, the market share of Singapore as a trading venue has dropped to zero. This reflects the strength of institutional mechanisms and liquidity of the onshore exchange-traded equity derivatives market.

There is a significant market for OTC equity derivatives, on Indian underlyings. That market comprises dealers in Hong Kong, Singapore and London who sell OTC derivatives of two kinds. Sometimes, derivatives on Indian equity underlyings are sold to customers outside India who are barred from participation in India. At other times, OTC derivatives transacted outside the country are not available in India. The 'Participatory Note' (PN) is the simplest OTC equity derivative, sometimes with a simple linear payoff structure. It is favoured by customers who lack a license to trade in India, or by customers who find it cost efficient to not deal with the regulatory frictions of India.

As an example, an FII or FDI portfolio could choose to buy a one-year Nifty put option in order to eliminate downside risk on the portfolio. Nifty options of this maturity are not available in India. The maximum options maturity on NSE is only three months. This customer would typically access the OTC market in Hong Kong. A dealer in Hong Kong would sell the investor this option. The dealer would then go on to lay off this risk by setting up a hedging strategy utilising the Nifty derivatives that do trade in India. As an example, the risk of the put option can be hedged by a dynamic trading strategy based on a large number of transactions on the Nifty futures, which replicate the payoff of the put option.

In the case of currencies and interest rates, the onshore market has much weaker institutional mechanisms and liquidity. This has led to a blossoming of derivatives on the INR/USD exchange rate, and on the INR yield curve, outside India. As an example, the onshore interest rate swaps market has the following features:

- The market comprises a mere 15–18 active dealers and 80–100 participants. This compares adversely with the enormous scale of participation in the onshore equity derivatives market.
- The average daily dealt volume is about Rs. 2,500 crores of notional value. The bid-offer spread seems to be 1–2 basis points for OIS and 3–5 basis points for MIFOR swaps. While some liquidity is available all the way out to 10 years, the most liquid segments are 1 year and 5 years for OIS, and 2 years and 5 years for MIFOR swaps.

The currency derivatives market is similarly burdened with many problems. Both markets – the currency derivatives market and the interest rate derivatives market – lack speculative price discovery and market efficiency rooted in arbitrage. As a consequence, trading in derivatives on Indian interest rates and the INR/USD exchange rate has inevitably blossomed outside the country. The currency derivatives on the INR/USD exchange rate are typically "non-deliverable forward" (NDF) contracts.

The 'other benchmarks' in the table include MITOR swaps, CP based swaps, 1-year MIFOR swaps, etc. In addition to the products listed in the table, a recent development has been the rise of credit derivatives (CDS and CLN) on Indian credit risk underlyings, outside India. This is linked to the rise of FCCB borrowing by Indian firms, which generates demand for hedging against this credit risk. Global hedge funds are known to sell credit protection on Indian corporations, but these entities lack access to a local credit derivatives market.

Putting these together, there is perhaps a billion dollars a day of notional value of derivatives which are traded outside the country on Indian underlyings. This is an important development that has largely escaped the attention of policy makers. The growth of these markets underlines two points. First, India's movement towards *de facto* convertibility is now at a level of maturity that permits substantial derivatives trading on Indian underlyings outside the country. Second, these markets will wax and wane in response to the sophistication of Indian financial regulation. When India runs a tight license-permit raj, there will be a greater shift of trading to locations outside the country. When India runs relatively liberal policies, these markets could shift to India – though that cannot be taken for granted once liquidity has become well entrenched in markets trading elsewhere.

HPEC proposes no policy hostility to these markets. These offshore derivatives markets are a positive development for the Indian economy. When Indian financial regulation obstructs derivatives, offshore production of these products helps end-users to obtain these services and thus undertake better risk management of their securities portfolios. This helps the sophistication and growth of the Indian economy. On the other hand, these offshore derivatives trading situations represent a loss of IFS markets that could more easily and efficiently be onshore and fuel the growth of Indian financial firms and markets, if policy impediments were removed. There is a case for reforms of Indian financial sector policy so that some of this market shifts to Indian soil; there is no case for trying to force foreign banks to cease and desist from these activities so as to extinguish these markets.

OTC Debt Derivatives	Onshore			Offshore		
	Market lot	Spread	Avg. daily volume	Market lot	Spread	Avg. daily volume
OIS swaps	25 cr.	1 bps	2500–3500 cr.	$5Mn	1.5–2 bps	$50–150
MIFOR swaps	25 cr.	3–5 bps	250–500 cr.	$5Mn	10–15 bps	$50–100
Forward rate agreements	25 cr.	10 bps	250–500 cr.	Not liquid	N.A.	N.A.
1Y GOI swaps	25 cr.	10 bps	250–500 cr.	Not liquid	N.A.	N.A.
Other benchmarks	25 cr.	15 bps	100–200 cr.	Not liquid	N.A.	N.A.
Currency forwards	$5Mn	0.5–1 ps	$1.5–2.0 Bn	$5Mn	0.5–2 ps	$500–750 Mn

to undertake current or capital account buy–sell transactions, the associated IFS are usually bought by the firm with better access to high quality, low cost IFS. Consider the example of an Indian firm exporting complex engineering goods to a firm in Germany. It can contract and invoice in: INR, USD or EUR. Because India has limited IFS capabilities, and a stunted currency trading market, the transaction is likely to be contracted in INR or USD. But the German importer generates revenues in EUR. It has to buy INR or USD to pay the Indian firm. It may have to use a currency derivative (future, forward or option) to cover the risk of a movement in the exchange rate of the INR or USD *vs.* the EUR between placing the order and receiving the goods. This would typically be done in London.

However, if India had a proper currency spot and derivatives market, the Indian exporter would be able to invoice in EUR. Local IFS demand would be generated by this local firm converting locked-in future EUR revenues into current INR revenues at a known exchange rate.

Indian exporters are not as flexible as they wish to be in their choice of the INR or of global currencies for invoicing (*i.e.*, USD, JPY, EUR or GBP) – or even the choice of currencies such as the SGD or CNY for trade with ASEAN and China. If they were, that could influence the effective price received by them. When goods are sold by an Indian exporter, and a German importer pays IFS charges in London for converting EUR into INR and managing the exchange risk, the net price received by the Indian exporter is lower. When the Indian exporter sells in EUR, and local IFS are purchased for conversion of EUR receipts into INR, the price received would be higher.

These differences are invisible in standard BoP data, which do not separate out and recognise charges for IFS being purchased or sold as part and parcel of contractual structures on the current or the capital account. For this reason, the standard BoP data grossly understate the size and importance of the global IFS market. Focusing on the transactional aspects of trade flows would tend to understate IFS demand since this tends to ignore the risk management business which rides on trade flows.

4. Estimates for IFS consumption by India

As elaborated upon earlier, different types of IFS are required for different types of cross-border trade and investment transactions. A wide range of fees are charged. Baseline transaction fees on open trade financing accounts (*i.e.*, normal trade flows without L/Cs or guarantees) vary from 0.10% to 0.25% (*i.e.*, 10 to 25 basis points). Investment banking transactions typically involve fees of 2% to 4% of transaction value. Annual fees for asset management services are typically between 1–2% of the portfolio under management (at the time of valuation and not the originally committed funds) with entry fees varying from 2–5%. Private banking and hedge funds involve higher annual loads and charges that can be partly performance based and are negotiable on an individual basis; especially for very large portfolios.

Basic transaction *flows* are accompanied by layers of multiple hedging and derivative transactions to cover risk *exposures*. For instance, an ECB issue might have secondary transactions hedging currency risk. Underlying securities might be integrated into an asset pool for mitigating underlying credit risk, and so on. Trade finance involves hedging as well. In the case of the capital account, as economic agents within and outside the country build up larger *stocks* of cross-border assets, the exposure that requires hedging grows. Substantial assets outside the country are controlled by Indian households. They induce a flow of revenues for IFS such as private banking, money management, payments services, etc. which are being lost by India.

Using simple but defensible extrapolations for this report, it is estimated that IFS purchases related to trade/investment in India amount to about 2% of gross flows. This average is based on a weighted composite of: (a) generic charges for corporate transactions (fund raising, asset management etc.) and (b) standard service charges

on current account flows. These estimates have been derived after extensive discussions with customers and producers of the kinds of IFS enumerated above.

In 2005–06, applying 2% (base case) on gross two-way flows of $657 billion, the estimated IFS market was US$ 13 billion or INR 600 billion. If estimates of 1% (low case) and 3% (high case) are used, then the associated IFS market size would work out to a low of $ 6.5 billion and a high of $ 19.7 billion.

These estimates are conservative because they are based on *plain vanilla* transactions. In the real world, financial firms put together increasingly sophisticated packages of IFS with risk management services layered over a vanilla transaction. Structured products involve significantly higher fees. But, the HPEC's inclination to be conservative in making such broad projections/estimates, on a relatively simple but understandable basis, has precluded such complexities from being considered.

Regardless of arguments about how these broad estimates of extant and potential IFS revenues are derived and interpreted, what is unarguable is that rapid globalisation of the Indian economy has created domestic demand for IFS at a faster rate than the economy's growth. The 'globalisation over growth multiplier' is driving Indian demand for IFS more rapidly than the supply of IFS in India can cope with.

India has not yet made the policy, regulatory, structural, institutional, and market changes that are needed to match domestic supply of IFS with growth in domestic demand. Essential supply-side changes include: (a) the removal of capital controls at a more rapid rate that currently envisaged by the CAC-2 report to permit demand and supply of IFS to equilibrate more efficiently and responsively in tune with growth and globalisation; and (b) further rapid deregulation and liberalisation of Indian finance accompanied by structural, institutional and market integration of the Indian financial system with the global financial system, through a focused and intensive programme of financial sector structural adjustment and reform.

5. Projections for IFS consumption by India

5.1. Outlook for deep globalisation in India

Whether the focus is on trade in goods or services, or on the capital account, what India has done so far (1992–2006) to reintegrate into the world economy represents a small series of hesitant steps. The bulk of exports from India so far are sterile: *i.e.*, where an Indian company produces a good or service and tries to find buyers (importers) outside the country unconnected with the exporting company. 'Deep globalisation' comes about when a production facility in India is woven into global production chains that are becoming vertically (and horizontally) integrated. As a number of reports from UNCTAD and other sources confirm, over 35% of world trade in goods and services is now **'intra-firm'** trade; *i.e.*, transactions across borders that occur within the boundaries of a single MNC. A further 25% is **'inter-firm but intra-industry'** trade: *i.e.*, across firms, but within industries (*e.g.*, the auto industry).

Those percentages are likely to grow. As that happens deeper globalisation will occur with global MNCs in India (domestic and foreign) exporting to subsidiaries and/or affiliates of those same groups and their suppliers/customers worldwide. At this point, trade/GDP ratios that have already risen impressively since 1992 will turn upward even more dramatically as happened in China. Deep globalisation requires:

1. Continued reduction of government-induced barriers to trade, such as customs duties or capital controls, and a shift over to a modern VAT framework where imports of goods or services are charged the national VAT rate at entry and exports are zero-rated.
2. Global standards of physical infrastructure – *i.e.*, transportation and communications, ranging from container terminals and airports to fibre-optic cables giving broadband connectivity at world prices, with ubiquitous voice-over-internet protocol (VOIP) telephony, etc.
3. A substantial presence of the world's

major MNCs– whether Indian or foreign – being located in India; since the lion's share of trade in the world today takes place *within* MNC boundaries. This requires removing India's barriers to FDI and opening up to MNC participation in all sectors of the economy without as many obstacles, and encouraging more Indian firms to become global multinationals.

India has made significant progress on this three-fold agenda. It is worth noting that, post-1999 when swift advances on these three issues were made, gross flows rose dramatically. Yet, much work on all three fronts still remains to be done.

India cannot be sanguine about how far it has come in the last 15 years; although it has much to applaud in that regard. It has come a long way. But now India has to focus on how far it still lags behind the rest of the world (especially ASEAN, China, Korea, Brazil, South Africa, leave alone Japan, the EU and US) and what it must do to catch up; not in decades, but in months and years.

On the issue of tariffs and capital controls, the empirical experience is that substantial reduction of restrictions *compared with earlier years* led to small economic benefits as long as the *level* of the barriers remained high in absolute terms. When a tariff for a product is lowered from 100% to 50% this seems like a dramatic improvement. But 50% is still a high barrier that fundamentally undermines imports. It affects adversely the export competitiveness of industries that utilise the protected product as a raw material.

In the same way, in the financial world, allowing mutual funds to start schemes for overseas investment (subject to a series of quantitative restrictions on investment per fund and aggregate investment by all funds) is quite different from decontrolling overseas investment by mutual funds altogether and leaving them to get on with it. That is a key issue for understanding the outlook for India's future.

Since 1991–92, it appears as if India has made considerable progress in: lowering tariffs, lowering capital controls, improving infrastructure, and permitting entry to MNCs. But, on all these fronts, what has really changed in India is a shift from egregiously high barriers to modest barriers that are still much higher than they should be. Incremental changes have been made in lowering tariff and non-tariff barriers. Tariffs are still too high by global standards and for meeting India's own growth and development interests.

The reduction in barriers that has occurred so far, and the consequent improvement in competitiveness, while significant, are not sufficient; except in a few instances where remarkable results have been achieved. Similarly infrastructure has improved; but, insufficiently in terms of quantity or quality in every sub-sector: whether power, water, irrigation or transport. Communications infrastructure has improved dramatically; simply because reforms in that sector were more sweeping. It would improve even faster if such reforms were continued and foreign entry was opened up further. Entry barriers to MNCs have been lowered; but a host of mind-numbing restrictions, differentiated by sector, size and location, still remain.

The biggest economic gains (in terms of growth and diversification) will be achieved when India takes the next step in moving from modest barriers to no barriers. When barriers to entry and competition are removed altogether in the real and financial economies, two-way cross-border financial flows will grow dramatically – not incrementally – in the next ten years. As shown earlier, they doubled in 1992–02 and nearly tripled in 2002–06. If India 'goes for broke' in reducing extant barriers, especially in the financial sector, those flows may multiply yet again in 2007–10.

Another perspective that encourages nonlinear thinking is the empirical experience of IFCs such as Singapore. When Singapore became a GFC, the volume and variety of IFS transactions grew exponentially, not incrementally. If India is able to establish an IFC in Mumbai quickly, a point of inflection will be reached when growth will be non-linear and not incremental. The establishment of an IFC is similar, in that sense, to the provision of liquidity in financial markets where only a binary outcome is

Table 4.6: Segment-wise projections of BoP accounts (amounts in $ bn)

		GDP Share (%)			BoP component flows	
		2006	2010	2015	2010	2015
		1	2	3	4	5
Merchandise	outflows	21.6	26	28	305.14	600.05
	inflows	14.5	17	23	199.52	492.90
Invisibles	outflows	7.0	7.44	8.62	87.32	184.73
	inflows	12.6	15	16.7	176.04	357.89
Total inflows		27.1	33	32.62	375.56	850.78
Total outflows		28.5	29.44	32.79	392.46	784.78
Gross flows on C Account		55.6	62.44	66.00	768.02	1,635.56
Gross flows on K Account		35.0	35.20	35.20	412.64	754.35
Official flows	outflows	0.0	0.3	0.3	3.52	6.43
	inflows	0.0	0.5	0.5	5.87	10.72
FDI	outflows	0.4	1	0.6	11.74	12.86
	inflows	1.2	2	1.47	23.47	31.50
Portfolio (equity + debt)	outflows	7.7	6	8.94	70.42	191.59
	inflows	9.4	9.4	11.37	110.32	243.66
Debt	outflows	7.2	5	4	58.68	85.72
	inflows	8.0	9	6	105.63	128.58
Miscellaneous	outflows	0.5	0.46	0.27	5.40	5.79
	inflows	0.7	1.5	1.75	17.60	37.50
Total external flows		90.6	98	101	1,181	2,390

feasible: (a) explosive growth or (b) abject failure.

5.2. Baseline projections of external flows

Under reasonable and plausible assumptions, India's GDP at nominal market rates will exceed US$ 1 trillion in 2008. It will be over US$ 1.5 trillion by 2012 and over US$2.25 trillion by 2015.[2]

Based on these GDP growth rates, a crude metric of India's globalisation is provided by the proportion of total gross cross-border flows to its GDP. In 2005–06, this was 90% of GDP. This ratio is projected, conservatively, to rise to 100% of GDP by 2014–15. It is on that basis that the table below summarises BoP projections of India's external flows in the years 2009–10 and 2014–15. The figures in column 1 are actual shares of individual BoP components in 2005-06. Given deepening globalisation (*i.e.*, share of BoP as a share of GDP) observed in the past, and faster GDP growth likely in the future, we have assumed that external flows would be as large as GDP (columns 2 and 3 of the Table). The actual flows are computed by multiplying GDP (in USD billion) by the respective shares. The reasoning for these shares is as follows:

- Exports and imports (other than petroleum) have been growing at over 20% annually in the last two years. India's share of global merchandise trade remains below 1%. But its increasing competitiveness will take it above 25% of GDP by 2015. On the current account, India's merchandise trade share will rise, especially after 2009, with India's accession to the WTO trade regime. Moreover, providing further impetus to Mumbai's growth as an IFC, India's linkages with other growing countries will increase.
- In recent years, Asian economies have been emerging as major trading partners of India. Trade with these countries has grown faster than overall trade. Emerging Asia accounted for 22.4% of India's exports in 2004–05 (16.0% in 1999–2000) and 20.1% of total Indian imports (16.2% in 1999–2000). In 2004–

[2] Kelkar (2004b) offers arguments about why Indian GDP growth will accelerate into the coming decade.

Table 4.7: External BoP flows under different scenarios (US$ billions)

	CAGR	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Low	10%	657	723	795	875	962	1058	1164	1280	1408	1549
Medium Low	15%	657	756	869	999	1149	1322	1520	1748	2010	2311
Medium	20%	657	788	946	1135	1362	1635	1962	2354	2825	3390
Medium High	32%	657	867	1145	1511	1995	2633	3476	4588	6056	7994
High	40%	657	920	1288	1803	2524	3534	4947	6926	9697	13575

05, China emerged as the second major export market for India after the US. It has now become the largest source of imports, surpassing the US. Exports to China surged by 81% in 2004–05 and imports increased by 67%. A similar trend was noticeable vis-à-vis the ASEAN-5. Looking ahead, there is further scope for expansion in trade with these countries.

5.3. Alternative scenarios for foreign transactions growth

There are already signs of a profound qualitative change in India's financial linkages with the world, in its current and capital accounts. Table 4.7 indicates a rough quantitative measure of the change, in terms of overall transactions levels over various periods, starting from 1992–93 (the first inflexion point) to the latest year for which data is available, *i.e.*, 2005–06.

The following table indicates the magnitudes of BoP flows associated with a range of CAGRs that could be achieved over the next decade. It starts with BOP numbers for 2005–06, to which these different CAGRs are applied, assuming that the indicated compound growth rate continues apace over the next ten years. Obviously, this simplifies reality; but it provides a useful illustration nonetheless. The resulting projections of total BOP shares are consistent with the conservative CAGR's of 10–15% in the scenarios presented in Table 4.7 above.

The different growth rates shown above indicate the magnitudes of total external flows that would be generated. The choice of CAGRs corresponds to those observed over various time horizons in India. The 10–15% rates are in line with the CAGR in India's BoP over the 1990s and the early years of this millennium. The 20–32% rates correspond to growth in the last two years. The data available for 2006–07 indicate that an assumption of a 40% growth might be more justified in projecting two-way flows for the next few years.

5.4. Projections for the revenue potential of Mumbai as an IFC

The direct fees that IFS in Mumbai might generate by 2010 and 2015 are illustrated below. Ancillary taxes and other influences on current account flows, resulting in surpluses, would be additional. Although the range of fees varies widely across financial services, it is reasonable to estimate an aggregate average of these fees across various services. We have assumed fees for intermediating external sector flows to be about 2% of flows. We arrive at this approximation using the weighted average of generic charges for corporate transactions, including fund raising, asset management and add the service charges on current account flows.

In summary, our median (base case) projections involve IFS demand in India

Table 4.8: Projections of Fees (end-March, US$ billion)

	2006	2010	2015
Total external flows	**657**	**1,181**	**2,390**
Total fees @ 1%	6.57	11.81	23.90
Total fees @2%	**13.14**	**23.61**	**47.80**
Total fees @ 3%	19.71	35.42	71.70

rising from $ 13 billion in 2006 to $ 48 billion in 2015. A low-case assumption would see IFS consumption rising from US$ 6.6 to nearly US$ 24 billion over the same period. A more optimistic (but not implausible) 'high-case' assumption would see it grow from US$ 19.7 to nearly US$ 72 billion.

6. Implications for India's aspirations to create an IFC in Mumbai

The estimates shown and projections made for the purposes of this chapter require a new way of thinking about an IFC in Mumbai. The traditional approach for Indian service exports has been that of tapping into a quasi-infinite world market. This approach was taken in the case of the software industry. That industry has domestic sales of $0.5 billion a year and exports of about $15 billion a year. Indian software firms have grown by expanding their lists of *international* customers. The domestic market does not feature as significant in the minds of the CEOs of these firms. It certainly played no role in their graduating into multinational export-oriented firms.

IFS are similar to software in that they are labour and skill intensive. They thrive on human capital, telecommunications infrastructure, and sound policies. As has been argued in this chapter, there is a fundamental difference between finance and software: *i.e.*, India's hinterland advantage for IFS provision. The sheer size of the Indian economy, its growing integration with the world, and the high growth rates of cross-border flows that are likely to materialise in the future, all imply that *India* is already a large and growing customer for IFS. It will be one of the three largest customers in the world for these services within a short span of time.

6.1. The threat

Intuitively, a simple analogy for IFS might be made with (say) the steel industry. India's rapid growth implies that Indian demand for steel will rise sharply. Steel, like IFS, is a superior good: a 1% growth in GDP is likely to induce an above-1% growth in demand for steel. If Indian steel producers are unable to keep pace with the quality and quantity of steel required in the country, then Indian demand will be met by producers outside. Applying similar reasoning, if India chooses not to make the financial and urban governance regime changes required to create a viable IFC in Mumbai, then Indian customers will look to Singapore, Dubai, London and other IFCs. Financial firms and policy-makers in these three cities are already attuned to opportunities for selling IFS to India. They have embarked on strategies to exploit the infirmities of the Indian financial system, which – as discussed earlier – has not evolved apace with the IFS (or DFS) needs of a rising India.

6.2. The opportunity

At the same time, Indian IFS demand provides an opportunity for developing the overall capability of the IFS industry that the software industry never had. Indian software exports took place by dint of Indian human capital. IT firms asked nothing from the State other than telecom reforms though they were given tax benefits as well. Indian IT genius was able to conquer world markets in 1996–2006 in a way that could not have been predicted.

In the case of IFS, there is an identical opportunity for Indian financial genius to achieve success in the world market; but with one key difference. Unlike IT exports, the potential for achieving IFS exports are increased dramatically by a hinterland advantage. India's growth and the consequential domestic demand for IFS generate natural opportunities for IFS producers in India (local and foreign) to gain skills and realise economies of scale. But just as Indian software exports required an enabling framework from the State by way of telecom reforms, Indian IFS exports will require an enabling framework from the State through:

- The removal of capital controls as early as practicable
- Further reforms in the financial sector – involving deregulation, liberalisation, gradual exit from public ownership of

Table 4.9: The Global IFS market

	Market share (%)						Size (USD tn)
	UK	US	Japan	France	Germany	Others	Total
Cross-border bank lending (09/05)	20%	9%	8%	8%	11%	44%	20.3
Foreign equities turnover (2005)	43%	31%	–	–	3%	23%	5.8
Foreign exchange turnover (04/04)	31%	19%	8%	3%	5%	34%	600
Derivatives turnover							
- exchange-traded (2004)	7%	31%	2%	4%	12%	44%	
- over-the-counter (04/04)	43%	24%	3%	10%	3%	17%	368
International bonds - secondary market dealing (2005)	70%	...	...	...	...	...	50.6
Fund management (as a source of AUM, end-2004)	8%	45%	12%	5%	4%	26%	45.9
Hedge funds assets (end-2005)	20%	62%	1%	2%	–	8%	0.9

Sources: International Financial Services, London; Bank of International Settlements; London Stock Exchange, Bank of England, Systematics International, International Securities Market Association, World Federation of Exchanges, International Securities and Derivatives Association

financial firms, markets and exchanges, and open competition without restriction, by removing all remaining barriers to foreign and domestic competitive entry by financial and non-financial firms as investors in financial firms

- A dramatic improvement in the quality of urban facilities and governance in Mumbai.

To become a viable IFC, Mumbai must aspire to, and actually become, no less than a cosmopolitan and metropolitan 'global city' in every sense of that term.

7. IFS customers outside India as a market for an IFC in Mumbai

India's opportunities for providing IFS are not, however, confined to demand in its own market. Unlike continental European IFCs and Tokyo, an IFC in Mumbai need not be confined to serving only Indian customers; although that customer base gives it a clear start-up advantage. For the reasons discussed earlier, Mumbai has the potential as an IFC– if national financial policies and state/municipal urban governance are radically improved – to go beyond the confines of India and serve the world in a manner similar to London, New York and Singapore. The following tables should enable policy-makers to appreciate how large that opportunity is.

The scale of global IFS transactions is mind-boggling. The largest volumes are in currency and derivatives trading. These

Table 4.10: Global financial stock (USD trillions)

	2003	2010
Equity securities	31.9	56.8
Corporate debt securities	30.8	60.7
Govt debt securities	20.3	32.4
Bank deposits	34.8	58.8
Overall	**117.8**	**208.7**

segments will grow dramatically when the INR, CNY and ASEAN currencies become globally tradable. Foreign currency trading volumes were conservatively estimated at over US$ 600 trillion in 2004. The table shows that to be a credible 'global' IFC, a country has to cross the threshold of a 5% market share. France and Germany (Paris and Frankfurt) are examples of countries/IFCs that are clearly not 'global'. They have values of slightly below 5% in some areas and values of slightly above 5% in other areas. Singapore, which has mounted an impressive effort to become an IFC, has 5% of global currency spot trading with a daily turnover of $125 billion. In comparison, Indian currency spot turnover seldom exceeds $5 billion per day.

Funds under management by asset managers were nearly US$ 50 trillion in 2004. They have increased significantly since. Hedge funds now manage over US$ 1.2 trillion. That figure is growing by 40% annually. With both asset and hedge fund management, there is an important distinction between IFCs that are primarily *sources* of assets seeking management, and

Table 4.11: The Global IFS market

Component	*Projected world market in 2010 (Trillion USD)*	*5% market share (Trillion USD)*
Fund management (assets under management)	100	5
Turnover per day		
Currency spot	4	0.2
Exchange-traded derivatives	25	1.25
International bonds	0.3	0.015

GFCs in which fund managers set up their operations. Looking into the future, the consulting firm McKinseys estimates that the stock of global financial assets will almost double from US$ 118 trillion in 2003 to US$ 209 trillion by 2010. The breakdown of these totals is shown in Table 4.10.

The fees and profits associated with these magnitudes are enormous. A major mental paradigm-shift is required in India to comprehend these numbers: for market size, and the corresponding fees generated. As an example, most financial policy makers in India today would perceive a currency spot market with a daily turnover of $200 billion, or $50 trillion per year, as inconceivable.

Profits from investment banking services alone, internationally, were estimated at $53 billion in 2005. If India had a 5% share of 2005 investment banking revenues, that alone would have amounted to over US$ 2.6 billion. This estimate of course ignores the phenomenal growth of this particular IFS market after 2005.

It is worth reiterating that the services considered are only a small subset of the total range of financial services that are currently on offer.

8. International comparisons

Tables 4.12 and 4.13 show a rating comparison of established and emerging IFCs on demand for IFS from their national, regional and global clients. When compared against established IFCs, Mumbai fares well on domestic demand, but poorly on regional or global clients. When compared with emerging IFCs, Mumbai lags the others on demand from the region or the globe. But Mumbai stands out – and perhaps is matched only by Shanghai – on having a vibrant domestic market.

Table 4.12: Comparing Mumbai against emergent IFCs

Attributes, Characteristics and Capabilities of an IFC: (Scale of 0–10 with 0 = worst; 10 = best)	Mumbai	Hong Kong	Labuan	Seoul	Sydney	Dubai
A. Demand Factors for IFS						
A1. National (Domestic) demand for IFS	10	4	2	7	6	2
A2. Demand for IFS from Regional clients	1	7	5	2	3	9
A3. Demand for IFS from Global clients	0	2	2	2	3	5

Table 4.13: Comparing Mumbai against existing IFCs

Attributes, Characteristics and Capabilities of an IFC: (Scale of 0–10 with 0= worst; 10= best)	London	New York	Tokyo	S'pore	F'furt	Mumbai
A. Demand Factors for IFS						
A1. National (Domestic) demand for IFS	10	10	10	4	10	10
A2. Demand for IFS from Regional clients	10	10	3	9	7	1
A3. Demand for IFS from Global clients	10	10	3	5	3	0

Augmenting IFS provision via BPO

chapter 5

1. How does an IFC produce IFS?

As argued in preceding chapters, the provision of IFS differs from the production of conventional goods and services. It involves strong economies of agglomeration. This is partly because of the network externalities that shape liquid markets and complex inter-personal and inter-firm relationships. In addition, financial regime governance is an intrinsic, inextricable, 'un-detachable' part of the financial product/service, leading to IFS provision being focused in a few IFCs whose governance regimes have achieved global acceptability.

Spectacular progress in IT and in the costs of transportation of goods has helped to disperse the production of goods and services around the world – often within the umbrella of a single MNC. Such dispersion has occurred because firms wish to be nearer to sources of cheaper/better labour, large consumer markets, sources of key raw materials, or inputs such as water, access to infrastructure, or simply a more tax advantageous location.

Paradoxically, the concentration of global IFS provided from London and New York has increased even as the dispersion of production of goods has taken place in the last 30 years. Today, the provision of global IFS is more concentrated than (say) global automobile production and assembly. The latter is decentralised around the world through a production chain that involves fragmentation of component manufacture and synthesis in assembly. The most intense concentration of auto production in the world – in Detroit – is far less important in determining the contours of global car production when compared with the role that just three GFCs now play in shaping the contours, setting the standards, providing the instruments and trading platforms, doing the deals, and generally innovating for global finance.

A lot is made of the 'death of distance' (Cairncross, 1997) resulting from new technologies. But, that has not yet affected the primacy of IFCs, or of national financial centres within large economies. The web of human networks, inter-personal relationships, and information flows (about clients, products and markets) that make a national or international financial centre what it is, has eluded functioning over a distance; despite facilities such as e-mail and video-conferencing. For example, despite the enormous growth of financial trading across India with the use of ICT since 1990, the fact is that Mumbai remains the financial capital of the country. That is just as true for London, New York and Singapore as GFCs serving the world well beyond the needs of their own national or regional economies.

The addendum to this argument is that – if the history of IFCs over three centuries is any guide – all globally significant economies have no option but to turn their *national* financial centres into IFCs, as their integration with the global economy widens and deepens. That process occurs by design or default. It cannot be avoided. That is because every globally significant economy has to have a central node connecting its financial system with the global financial system. The question for such economies (particularly for China and India – now the world's two largest emerging economies) is whether the nascent capacities of their financial centres (*i.e.*, Mumbai and Shanghai) as IFCs will remain limited to serving only their own economies (like Paris, Frankfurt and Tokyo) or whether they will grow into export-oriented GFCs, serving the IFS needs of their regions and the world, and making a handsome living from service export revenues by doing so.

The bulk of the *value* of financial services production (particularly IFS) lies in creative thinking and complex decision making. It involves a combination of: fine judgment and client/market knowledge shared across networks of professionals across financial firms. It has close access to exchanges, regulators (especially at policy-making levels), and sophisticated legal, accounting, and tax expertise.

The process of creating and producing new financial services involves: (a) a small number of hours of high value human capital in financial, legal and accounting firms as well as in regulatory agencies; supported by (b) a large number of hours of lower-priced labour, handling the more routine tasks of recording, confirming, booking and correcting the trading involved in two-way financial transactions. These routine tasks need to be performed meticulously in real time.

The former involves creative thinking and complex decision making. As in the case of Silicon Valley or Bangalore – or Stanford, Harvard, Oxford and Cambridge – those processes are critically dependent on specialised human capital with specific domain knowledge interacting in a geographic cluster. For IFS such clusters are found in Wall Street or the City of London. Physical proximity in one location enables people to bounce all kinds of ideas off each other and to develop/refine them into tradable IFS transactions on an 'eye-ball to eye-ball' basis. Finance involves more than processing data through mathematical formulae. It involves human knowledge, requiring fine judgment when faced with different shades of grey, or when tailoring or matching client demands and needs (whether clients are users of finance or investors) to sets of circumstances that keep changing, and involve different combinations of risks that are evolving or mutating continuously.

An IFC is a place where a set of humans can converse, compete and trade in the confines of the 'financial world', interpreted in the broadest sense of that term. Decision-making and innovation in IFCs takes place through ceaseless communications among financial analysts, tax specialists, accountants, fund managers, speculators, arbitrageurs, investors, exchange managers, regulators, and treasurers from the financial and non-financial worlds. The nuances of these conversations, the millimetric raising of eyebrows or pursing of lips, and the non-verbal body language so crucial in understanding human reactions in negotiations, are not yet as amenable to subtle interpretation at a distance or on a screen. Phone calls, e-mails and video-conferencing are no substitutes for a chat over coffee or agreement on a deal structure over a game of golf or at a recreation club.

The endless stream of conversations at an IFC is fertile raw material for creative intellectual leaps and imaginative connections through lateral thought. The mind of the successful financial engineer can creatively link three apparently unrelated conversations with clients/colleagues during the previous week, into a set of financial transactions that meet the different needs of three counterparties, while leaving a tidy profit on the table. Spotting such deals requires a regular flow of top quality conversations in an environment that encourages them.

But the ingredients of creativity, imagination, and ingenuity notwithstanding, another phenomenon that has been at work in the world of global finance is an ever-increasing flow of high quality data about firms and countries from an increasing variety of sources, coupled with rapid analysis and global dissemination of this data, through the electronic medium. In principle, a speculator or investor (holidaying in Albania) could be far removed from an IFC (in London) while looking at data on a laptop, engaging in analytical thinking, deciding to buy, sell or hedge a position or security, and placing the trade order with a broker/agent to execute immediately. When trading is driven by cold analytical data processing and remote decision-making, such activity could indeed move out of London and New York to Mumbai, even when the hub of conversations is not in Mumbai. That migration might be driven by nothing other than better service standards, better execution capability at a better price, better

communications, a more convenient time-zone, and lower overall costs in servicing that customer's account.

In some ways, quantitatively oriented finance companies find it easiest to leave the hub of conversations and move to venues with lower-cost labour, since their trades are driven by computerised data processing and not conversations amongst humans. But even in this field, London and New York have crucial advantages. Securities markets are extremely effective at consuming publicly available data and rapidly incorporating it into the price of a contract (owing to speculators all over the world who take educated risks based on this data). Obtaining an edge in decision making, requires human judgment in planning the trading strategies which are implemented in computerised analytical and trading systems. Such judgment is concentrated in the human capital hubs of IFCs.

2. An outsourcing approach to IFS provision and IFC development: Possibilities, opportunities and pitfalls

An alternative approach to developing IFC capabilities involves deploying 'sub-contracting' or 'outsourcing'. The success of such an approach depends on the potential for breaking up the 'stack' of IFS into different layers, and sifting out those tasks that require discretionary judgment, as opposed to those that can be driven by a well-defined process manual.

Close examination of IFS provision reveals numerous sub-systems for which process manuals can be codified, specific activities can be outsourced, and the technical performance of a sub-system can be objectively measured. These sub-systems can be outsourced – using protocols now well established – from any IFC in the world to India (not necessarily just to Mumbai but to any city that provides global IT support services). Understanding the role that BPO can play in IFS production, then, reduces the policy-making conundrum to four questions:

1. What can be done by way of IFS provision that is based on computer systems consuming electronic information and requiring analysis that could be done by human capital in Mumbai, Bangalore, Hyderabad, Chennai, Pune, *etc.*?
2. What is the potential for outsourcing IFS sub-tasks to Mumbai from other IFCs?
3. What does India need to do to succeed with an outsourcing strategy involving Mumbai or any IT-enabled Indian city immediately in global IFS provision?
4. How can an outsourcing strategy be used to lead to full-scale IFC development in a short span of time? Or would an outsourcing strategy result in deferring emergence of a fully-fledged IFC by compromising its development because of implicit or explicit non-competition arrangements between clients and service-providers?

In answering these questions, it has to be noted that India is already providing ICT software systems development/maintenance and management support to global financial firms, operating in almost all extant IFCs, for 'back-office' operations. Increasingly, higher value processes are being outsourced to India such as the financial analysis of companies, stock market research, credit rating research, *etc.* using the same standards, models and practices that are used by major global securities brokerages, related investment banks, as well as the world's principal credit rating agencies. Hard statistics about the scale of employment in Mumbai, of BPO jobs requiring finance domain knowledge, is hard to come by. Some news stories suggest a significant scale of employment that is undertaking increasingly complex functions. A Bloomberg column by Mark Gilbert records significant movement up the value chain with more complex tasks being done in India.[1] This is being done within the ambit of major Indian IT service providers as well as the captive IT processing centres owned and operated by major global LCFIs such as Citibank, Deutsche Bank, HSBC, ING, some global insurance companies and many others.

[1] See `http://tinyurl.com/yzpbqf` on the web.

The question for Indian policy-makers and financial firms interested in developing IFS-provision linkages through sub-contracting/outsourcing is not whether the BPO models and systems already in place (between global financial firms and Indian IT service providers) can creep up the value chain. Of course they can; and they will. But will that result in developing full-fledged IFC capabilities in Mumbai? Probably not: unless Indian financial firms (rather than IT firms) organise themselves into being sub-contractors, service providers or partners to global financial firms. That would need to be done under contractual arrangements that enabled them to graduate into providing IFS services on a fully-fledged basis seamlessly through natural progression. It may require an entirely different approach to outsourcing and different relationships with extant global IFS providers through the three GFCs.

In looking at that possibility, policy-makers and financial leaders in India need to understand why global financial firms (viz. Merrill Lynch, Goldman Sachs, J.P. Morgan Chase, Barclays, Natwest, *etc.*) – that entered India as joint-venture partners with Indian firms (particularly in investment banking and securities markets) – are now arranging amicable separations from their Indian partners, and preferring to 'go-it-alone'. These joint-ventures, on the face of it, offered one possible structure and venue for the Indian partners eventually to develop their own IFS provision capabilities for the Indian market and beyond. What was the crux of the concern that led these global financial firms to abandon those partnerships and retain their own brand identities within organisational and institutional structures that they controlled on their own rather than in partnership?

In the view of HPEC, some of whose members are CEOs of the Indian partners of global firms, these global firms probably felt that: (a) the Indian market was too large and globally significant for them to share the returns from it in perpetuity with partners they were forced to 'marry' to enter India; and (b) their Indian partners had the innate ability to compete with them in global markets (if they were permitted to) on level terms and with a distinct cost advantage.

Under those circumstances a continued relationship that did not offer the possibility of complete absorption of the Indian firm by its global partner would only result in continuation of the forced 'marriage' being of more net benefit to the Indian partner (in terms of access to learning and increasing competitiveness) than to the foreign one. Those conclusions have an important implication: *i.e.*, that: (a) established global financial firms already acknowledge both the significance of the Indian market in global terms, and (b) the innate capability of Indian financial firms to compete in it. Indeed the faith of these global firms in Indian financial firms appears to exceed that of India's policy-makers and regulators.

3. A BPO opportunity: Asset management in Mumbai based on algorithmic trading

An increasing proportion of the trading strategies of major global financial firms can be classified as 'algorithmic trading'. Such trading involves the translation of public information into mathematical models that compute orders that are placed automatically on the market for execution. There is, of course, a continuum in two dimensions. To what extent does a human get involved in decisions? And, to what extent is order placement automated? In both dimensions, there are shades of grey.

- ***The decision-making dimension:*** In the decision-making dimension, different trading houses have varying levels of automation. Some firms build complete IT systems that analyse information and make decisions. Some firms build sophisticated models that analyse data and interact with humans. But the final decision is taken by the human.
- ***The order-placement dimension:*** Similarly, there are shades of grey on the extent of automation for order placement. Some firms build systems where sophisticated quantitative information processing drives the thought process, but the actual order placement is done

Box 5.1: *Algorithmic Trading (AT) and Direct Market Access (DMA)*

From the late 1980s onwards the phenomenon of algorithmic trading (AT) has become increasingly prominent in international financial transactions. At first such trading was viewed as an exotic side show. But it now occupies centre-stage: to a point where 80% of the NYSE turnover now comes from AT. In the case of the Chicago Board Options Exchange (CBOE) the proportion of business accounted for by algorithmic trading is even higher.

AT represents a fusion of human traders and computers where the role of the human input shifts away from executing trades to instructing the computer on how to place buy/sell trades. Computers excel at repetitive work; *i.e.*, at the task of processing vast amounts of information using pre-defined rules. AT consists of providing electronic market exchange feeds and news feeds into a computer simultaneously. The computer is controlled by a human decision-maker. But it processes all the data it receives in real-time and places buy/sell orders on the exchanges it is connected to and receives price information from. The connection between the AT system to the exchange is through Direct Market Access (DMA).

The sophistication of the algorithms in use is limited only by human imagination and by mathematical modelling capacity. At their simplest, algorithms can scan the spot market and the futures market simultaneously, looking for violations of the cost-of-carry mathematical model. If a situation is found in which the futures price exceeds the fair price, the computer immediately swings into action buying the spot and selling the future. This is an equilibrating response, one that brings the spot price and the futures price back into alignment. Computers are inherently superior, when compared with humans, at relentlessly scanning the prices of a vast range of contracts on a large number of futures and spot markets and at responding to a mispricing within milliseconds. A market with computers watching for mispricing, and undertaking the arbitrage transactions needed to eliminate it, is much more efficient than a market where this task is done in a labour-intensive way.

In London and New York, hundreds of the best mathematical minds in the financial industry are continually at work analysing historical data and the performance of extant AT systems. They are constantly improving the models and the thought process that drives such trading. There is a continuous process of analysis of past performance, learning, and innovation leading to building better and better AT systems all the time.

AT systems are not just liquidity consumers – placing orders into an existing order book. Computerised algorithms can also place limit orders. Algorithms are able to patiently place and revise thousands of orders, even when only a few turn into trades, in a way that would exhaust human traders. Through this, AT systems tend to drive up the number of orders processed by an exchange per trade matched at the exchange. In return, these orders give greater liquidity and greater resilience of liquidity.

Contrary to popular perception, the computers involved in AT do not continuously make rapid trades or run amok without any human supervision. On the contrary AT systems are intensely monitored and controlled by humans and exchanges. As an example, in doing cash-and-carry arbitrage, the role of the human is that of choosing which traded products to monitor, setting the cost-of-carry parameters to be applied when comparing the spot and the futures prices, handling special situations such as close of market or futures expiration dates, and applying a manual override when the system misbehaves.

In the options market, "auto-quote" systems are particularly important, given the large number of listed option products. As an example, on the NSE, there are 9,000 different traded options. It is impossible for humans to monitor all these products. Computers excel at interacting with a human manager, computing a fair price for every traded option, and performing market-making functions on the options market. The human manager with such an auto-quote system infuses liquidity into a vast array of options, and runs an options book. The overall risk of the book is then laid off using the futures market using delta-hedging or other dynamic trading schemes.

In India today, the absence of such sophisticated systems is a key factor explaining the poor liquidity of the options market, since human traders are simply unable to produce liquidity in all 9,000 traded options.

For the last quarter century, a debate has taken place world-wide about the relative efficiency of the exchange as a way of organising financial trading; as opposed to the over-the-counter (OTC) market. In some areas, OTC markets have been unusually successful, such as in the currency forwards market. In recent years, the rise of algorithmic trading has re-emphasised the importance of the exchange as a venue. OTC trading is extremely labour intensive; it involves humans talking to one another, which is expensive and time-consuming. Minutes if not hours are taken by humans to do what computers can do in milliseconds. In addition, humans are more error-prone. It is therefore simply impossible to obtain the cost efficiency, enhanced liquidity, and enhanced rationality that comes from plugging an algorithmic trading into an OTC market. This is one of the reasons for the significant gains in market share of exchange-traded derivatives, and particularly the growth of currency futures, in the last five years.

The prospect of fully automated computerised trading systems without human intervention raises fears on the part of many mathematically unsophisticated people, who worry about a Frankenstein that can run amok and destabilise the market. It is often claimed that the October 1987

Box 5.1: *continued..*

crash in the US was caused by such trading systems. The Committee debated these issues at length and agreed on the following positions: (1) Just as an individual human trader can make mistakes and lose money, one computerised trading strategy can make mistakes and lose money; as with thinking about human traders, this is not a policy problem as long as there are a large number of market participants with no one market participant possessing market power (2) Whether human or computerised, all trading strategies are subject to position limits and margin requirements. (3) Shifting from human traders to algorithms changes nothing in terms of compliance with the risk management system; the computer is only a highly efficient clerk responding to the rules programmed into it by humans..

The October 1987 crash was indeed related to relatively primitive systems (by today's standards) at the NYSE being unable to cope with the sheer number of sell orders coming in over computer networks outside established price parameters incorporated into the models at the time (Kleidon and Whaley, 1992). But that was in 1987 – almost 20 years ago – when we did not know what we know now. Computer systems have become perhaps 1000 times to 4000 times more powerful between 1987 and 2007. With modern computer systems, it is now possible to handle enormous spikes in the order flow and incorporate into AT models much greater variations in prices caused by one-way herd instincts.

In that sense 1987 provided a profound learning experience that was on the whole positive for the lessons it taught. Despite the fears and spectre of doom that it raised, in the aftermath of 1987, AT has only become more important all over the world. It does not seem to have induced any new problems although AT driven volumes are hundreds of times larger now than they were then. The evocative mental image of one Frankenstein computer running amok and destroying the foundation of global finance is as fictional as it is inaccurate. The reality is the opposite when hundreds of different AT systems, all with different trading preferences, parameters and ideas, are competing with each other and trading with each other in the global finance market place. No one trading system is disproportionately important. The biases of one AT system are likely to be offset by the counter-biases of others. So even if a few AT systems suffer losses, others make gains (as is always the case when there is a buyer and seller whether human or not). Therefore they do not affect the market as a whole.

Indeed, the argument is now made in international finance circles that the algorithms are a force in favour of liquidity and stability. Their absence causes illiquidity and instability because the algorithms work ceaselessly to analyse information, trade and thus supply liquidity, while humans often back away irrationally from placing orders at times of market stress when emotions come into play. Human traders are more likely to suffer fear and panic; whereas computerised AT systems are relatively free of such human failings; they are able to objectively analyse information, and continue on with their work of making markets efficient even in times of market stress.

From an Indian policy perspective, the key argument that the HPEC would emphasise is that AT based on DMA provides a unique opportunity for India. Whether we like it or not, all IFCs now have prolific AT. It provides an extremely remunerative entree into the global IFS business where India can play an important role, even without making progress on local problems of financial or urban governance or capital account convertibility. Hence, it is particularly important for India to work on converting Mumbai into an internationally respected centre where the world's best financial engineers and computer engineers – who build and manage AT systems – are to be found.

by humans. Other firms build systems where the IT system interfaces directly with exchanges and orders are placed by the machine.

All this appears exotic in the present Indian context, where algorithmic trading using Direct Market Access (DMA) is banned with the exception of just one (DMA–NSE) trading strategy: one-shot futures arbitrage through cash-and-carry or reverse cash-and-carry. NSE staff read the computer programs of the trading house to verify that this is the only strategy that is being used before permission to trade is given. This policy framework eliminates the possibility of developing proprietary trading strategies for algorithmic trading. Such an approach is out of touch with global reality. There is no other country where regulatory staff read the computer programs written by algorithmic trading firms. Roughly 80% of the order flow into the NYSE now comes through DMA, so India might be losing half or more of potential order flow by erecting regulatory barriers to DMA. Such barriers are costly for India given the unique role of algorithms in improving market efficiency, and fostering liquidity at moments when human traders are thrown off balance.

In terms of contractual structures, what is often seen in established IFCs is such work being housed in a specialised asset management firm. Assets thus managed might flow in from a hedge fund, or from large institutional investors like pension funds, insurance companies, banks or mutual funds. But this is not the only possibility. Most large international banks have a quantitative arbitrage group either housed within the bank as an affiliate or as a 100% captive subsidiary.

From an IFC/IFS provision perspective, India can host quantitatively orientated firms that analyse vast data feeds with decision-making by computers. This re-

quires high quality skilled labour in econometrics, quantitative finance, advanced mathematics, and computer science. Access to top-end staff of this nature, at present, is best obtained in a GFC like London or New York. However, it would be possible for India to compete in this space based on low-cost but high quality human capital.

There are two possibilities open to India for exploiting this opportunity (in which India could excel) regardless of capital controls:

- As long as capital controls remain, such firms would be restricted to managing foreign assets, consuming information feeds from outside the country and sending orders back into financial markets outside the country. Some firms have established operations in India, with a structure involving tax domicile in a tax-haven, raising funds in a number of IFCs, and undertaking actual operations in India.
- When India removes capital controls, this business will be transformed owing to: (a) opportunities for obtaining assets for management within the country and (b) opportunities for sending orders back into Indian financial markets. This would benefit India in three ways: these finance firms would be more viable; Indian assets would be managed more professionally; and Indian markets would obtain global order flow.

Consuming public information and sending orders back into exchanges is a highly competitive business. Every trader and every financial firm has the identical information set. Yet some firms believe they can obtain an edge by faster and superior processing of information. A large number of high IQ people, along with a very large mass of capital sourced from banks and hedge funds, strive to obtain supernormal returns through such strategies. Algorithmic trading is therefore a highly competitive field. There are two possible sources of competitive advantage. The first is original ideas in how to process the information available and imagine which trades would be profitable: this is shaped by high-end intellectual capacity in modern financial economics. The second is labour cost of the highly sophisticated human capital inputs that account for the bulk of this business.

4. IFS subcomponents amenable to outsourcing

The essence of an IFC is the web of human relationships and information flows which lead to the best possible decision making when faced with complex problems where judgment is required. This is the defining feature of GFCs like London and New York. It might be the most difficult characteristic for Mumbai to replicate without the acquisition of more knowledge and experience. That will take time, as well as openness to importing sophisticated human capital with the kind of experience and expertise that India does not, at present, possess.

However, computer and communications technologies are now making it possible to break down the production process of specific IFS into sub-tasks, which are then done at locations around the world. Consequently, an increasing number of IFS sub-tasks are being performed outside established IFCs. These include customer call centres and direct selling, accounting, back office processing, software development, systems administration, data processing, research, *etc.*

What makes outsourcing possible is codifying the task that has to be performed in a process manual defining how it will be performed. A global financial firm operating in an IFC has a financial incentive to identify tasks that can be outsourced at a lower cost. Firms in Mumbai are well placed to bid for and win such contracts given the low prices of labour with adequate skills and finance domain knowledge. This process is already underway. Some sub-tasks of IFS are simple and require no domain knowledge. These can be easily performed at low-cost BPO centres like Jodhpur or Chandigarh. Other sub-components of IFS production require greater domain knowledge in finance. It is in performing these tasks that Mumbai has an edge that overcomes the labour cost advantage of Jodhpur or Chandigarh.

There is a direct relationship between increasing sophistication in Indian finance,

Table 5.1: What is happening in Indian finance through BPO?

Value chain	Business process	Technology
Research	Equity research Credit research	Capabilities in building research tools and portals
Execution	Trade allocation	Capabilities in delivering global execution platform
Settlement	Settlement instructions Cash operations Cash management Electronic payments	Experience in different messaging protocols, infrastructure and converters
Risk management	Risk modelling and management	Creating and supporting information systems for risk management
Data management	Data setup	Experience in data quality and practices, including analysis of market data
Reconciliation	Reconciliation	Nostro reconciliation. Position reconciliation
Fund processing	Manage payables/ receivables	Development and maintenance of fund processing applications
Corporate actions		Development and maintenance of corporate processing applications

Source: Infosys Technologies

and India's ability to win IFS outsourcing contracts requiring higher value addition. As Indian finance acquires greater sophistication in risk management and trading derivatives, it will create a larger pool of qualified human capital in these fields. That will result in more risk management tasks being outsourced to India. The disadvantage of outsourcing, from a strategic perspective, lies in low price realisations. Once an IFS sub-task has been codified, and the initial cost-saving allure of out-sourcing has subsided, the outsourcing contract will be opened up to competitive bidding. This will result in a price close to long-run average cost. Prices will be cut to the bone through global competition. India will get high billing rates in comparison with Indian per capita income. But the much larger revenues and value-addition generated in an IFC will remain elusive.

5. Making progress along two paths: IFC Evolution and BPO

The key feature of the evolutionary opening up for an IFC and the BPO path – whether for outsourcing or quantitative fund management – is that they both rely on highly skilled labour with finance domain knowledge. That requires a large number of postgraduates – masters and doctorates – in economics, mathematics, finance and computer science. All four are areas in which Indian output of high quality graduates is woefully inadequate. While India's labour force is internationally acclaimed, there are important gaps in education that need to be redressed.

Specifically, formal education in economics and finance is inadequate. At present, there is no programme in India offering a *Master of Science in Finance* or a *Master of Science in Computational Finance*. These two degrees are of crucial importance in the labour market for analytical finance jobs. On the international landscape, top universities in the US and EU that have a strong economics department *and* a strong mathematics department produce doctoral students in quantitative finance who enter the top end of the financial labour force. That has not yet happened in India where there is no world-class university that has a good mathematics department *and* a good economics department together in the same place.

IGIDR, IIT Mumbai, and some of the other free-standing quantitatively, mathematically orientated research institutes

around India could be built up into such institutions. But they would need to have: (a) leadership vision; (b) complete independence of operation that is not circumscribed by their funding sources; (c) an adequately funded corpus to attract and retain the best faculty at globally competitive wages; (d) incentives to develop cutting edge research programmes in financial derivatives and develop state-of-the-art trading strategy algorithms: (e) the right global partnership arrangements with the best institutions in the area of quantitative finance from abroad such as Wharton, Chicago, Stern, and LBS, for example. This turnaround in otherwise moribund institutions could be achieved quite easily and swiftly if the political and administrative will needed for the purpose were exercised. The Indian (and global) financial sector would fund and support such institutions enthusiastically; if for no other reason than because they would be the principal beneficiaries of their human and research outputs.

There is a considerable flow of knowledge across three financial domains: domestic finance, outsourcing, and quantitative fund management. All three draw upon a common labour force. The learning-by-doing that takes place in these areas is pertinent for all.[2] Hence, increasing the sophistication of domestic finance would improve the quality of the financial labour force. It will engage in learning-by-doing in response to demand for more sophisticated skills. For example, despite the profound weaknesses of graduate education in finance, India has one of the world's most respected equity derivatives markets. This came about through learning-by-doing assisted by NSE's mandatory certification program.

In the quantitative fund management arena, which is a specific area of opportunity for India, the goal should be to create an ecosystem of a hundred operational firms applying such an approach, located in Mumbai. This would lead to a fluid labour market with relevant skills, and a set of employees able to network with each other. The development of skills would be further facilitated if SEBI restrictions on DMA were eliminated to put India on par with other countries. Skills development by local firms engaged in quantitative trading would improve the viability of Mumbai as a venue where such activities could be located. Electronic trading and DMA are easily implemented in the equity spot and derivatives markets, and commodity futures exchanges. Reforms in the debt and currency markets that lead to successful electronic exchange platforms will help augment the scope and knowledge with quantitative trading firms.

In sum, there are two things that India should do to foster an agenda of using high-value outsourcing as a means of preparing IFC capabilities on a fast-track. First, it should attach great priority to the development of an elite, high-skill labour force with masters and doctoral programmes in economics, mathematics, quantitative finance, and computer sciences. Second, it should adopt regulatory attitudes and policies that induce and encourage, rather than inhibit and discourage, sophistication in domestic finance. That would automatically increase the pool of qualified labour with relevant domain knowledge. One specific control which particularly needs to be removed, as part of a quest for sophisticated finance, is the ban on DMA.

6. Conclusion

The expansion of BPO in India is a positive development that can exploited to advantage in strengthening symbiotically the attempt to create an IFC in Mumbai. Some kinds of BPO, involving low skills, are irrelevant for that purpose. Owing to cost factors, these are not already performed in Mumbai but in other low-cost centres across the country. However, an impressive array of tasks that requires finance domain knowledge has already come to India. These tasks are performed in Mumbai where specialised domain knowledge exists. A synergistic feedback loop now results in Indian finance creating specialised human capital; it attracts

[2] Many research articles, such as Lucas (1993), have emphasised the role of learning by doing in the context of a competitive and globalised economy, rather than formal education, as being of decisive importance in the process of economic development.

BPO to Mumbai and further enhances the quality of human capital. A two-way flow of highly skilled people between domestic finance employers, and BPO employers, is already taking place.

High-skill BPO work done in Mumbai enhances its prospects of becoming an IFC. It gives Mumbai prominence in the minds of senior decision-makers in global financial firms. That strengthens India's ability to attract such firms into other IFS activities in Mumbai. It enhances the development of greater skills and induces a more international outlook on the part of Indian staff, whose knowledge of global capital market opportunities would otherwise be more limited.

With telecom reforms there are no impediments to the growth of BPO other than rising labour costs and labour skill shortages. Through finance-related BPO, the skills of the financial labour force in Mumbai are being deepened. But further development of BPO hinges on two factors.

- *First*, India needs to create an elite labour force in quantitative finance. That is lacking in Mumbai at present. London and Mumbai have a similar number of individuals – roughly one million – engaged in providing financial services. But the knowledge of London's labour force (augmented by easy immigration in filling skills that are domestically in short supply) is vastly superior.
- *Second*, a programme of financial sector reform, leading to greater sophistication of domestic finance, would enhance further the quality of skills through on-the-job learning. India's success in creating an equity derivatives market has led to a large labour force that can do equity derivatives arbitrage. India's lack of a liquid and efficient bond market for sovereign, sub-sovereign, supranational and corporate issues, has led to the lack of a labour force that can arbitrage the yield curve.

While the continued development of BPO in finance is a positive feature that is supportive of the development of an IFC in Mumbai, winning high-value BPO contracts in financial services does not necessarily result in creating an IFC. The real value in IFS production lies in areas where creativity and judgment are required. India's sights need to be set higher than relying on more BPO revenues. These are infinitesimal compared to the revenues that could be derived from creating a successful IFC. That requires a policy approach quite different from Mumbai being promoted as a host for higher value-added BPO.

The only sub-component of the overall IFS universe, where distance is not an insuperable impediment to capturing full value from such services, is algorithmic trading. It is an area in which India could participate immediately in the global IFS marketplace with a pure BPO model, even if India makes no progress on regulatory difficulties of the local market or on capital controls. The universe of algorithmic traders comprises firms that consume vast quantitative data feeds, analyse them through algorithms, and automatically place buy-sell orders on the world's exchanges. This activity is the least firmly anchored in existing IFCs, since the conduct of such business does not require the human interactions that can only be found at an IFC.

Hence, DMA is an area in which India can make early progress in attracting global financial firms to establish operations. India's growth in this area will be assisted by DMA operations in existing financial exchanges that trade in equities and commodities. It will facilitate progress in bringing currency and fixed income trading to these exchanges as well. A key goal should be to have about hundred international DMA firms operating in Mumbai. That can commence even with capital controls, though deriving the full benefits for India would require their removal.

Market deficiencies in Mumbai that inhibit the provision of IFS

chapter 6

1. The context in which Mumbai must develop and evolve as an IFC

This chapter aims to provide a strategic perspective on some interrelated questions: (a) what kind of IFC should Mumbai strive to become? (b) How should its IFC capabilities relate to those of its domestic financial system; (c) What market deficiencies inhibit Mumbai in becoming an IFC? (d) Which institutional deficiencies prevent financial markets in India from functioning as they should? (e) Do these deficiencies compromise prospects for a successful IFC – rooted in the domestic financial system – to emerge?

First, therefore, this chapter looks at the obvious gaps in the market and institutional structures of Indian finance; viz. seen specifically from the viewpoint of provision and export of globally competitive IFS. If the provision and export of IFS from Mumbai were to capitalize on the inherent capability of the domestic Indian financial system – and, by the same token, be compromised by its weaknesses – where do the most important gaps lie and what has to be done to fill them? What are the main priorities?

By way of a necessary but brief digression, it must be noted that posing this question precludes an IFC in Mumbai that is either initially or eventually an artificial annex, affixed opportunistically, to the domestic financial system. In other words an IFC in Mumbai should not be an OFC. Nor should it be like the DIFC that does not relate to the wider UAE economy. Those models of de-linked IFCs are inappropriate for India.

India is not a small entrepot economy like Dubai or even Singapore; although it is a much poorer one in per capita income terms than both. It does not need an IFC to diversify from dependency on oil income. Nor does it have any other dependency that limits its diversification alternatives. The Indian economy is deep and immensely diversified in the production of goods and services. India needs an IFC because it is a growing global powerhouse. It is already one of the four largest economies in the world in 'real' purchasing power parity (PPP) terms. It will achieve the same rank by 2012 in nominal terms. By the middle of the 21st century India will be the world's second or third largest *national* economy, competing only with the US and China on the world stage, having surpassed the individual economies of Europe (but not the EU as a whole) and Japan. By the end of the century, India may well be the world's largest and most powerful economy in size though not in per capita income.

In that context, for Mumbai to become the kind of IFC that India needs (as opposed to the kind of IFC that SEZ developers might wish to promote) it must start out and develop properly. It must do so in a way that does not at any time compromise its prospects for becoming like, and competing with, newer GFCs like Singapore, or even established GFCs like London and New York, in the provision of IFS to its *extant* national, and its *latent* regional and global clientele.

These are the benchmarks that Mumbai must aim to target from the outset. It must not be seduced to emulate the easier targets of Dubai or Mauritius simply because those models are quicker to kick-start, or conform better to an SEZ-based IFC model.

To achieve its destiny, there is no option other than for Mumbai's IFC capabilities to be rooted in its domestic financial system – in the same way as New York, London (representing the EU rather than the UK) and Singapore (for the wider ASEAN bloc).

Given that reality, the only sensible choice for Indian policy-makers is to focus on deregulating, liberalizing and unleashing the domestic financial system in the rest of this decade, in the same way that India's manufacturing and trading sectors were liberalized and unleashed in the previous one. A Mumbai-based IFC that is rooted in a large and efficient domestic financial market, and that operates on global lines, is likely to be more successful and useful to India and the world, than one that is a mere artifice created to indicate movement rather than commitment. In creating an IFC the Indian authorities would make a serious mistake if they were to repeat the experiment of failed offshore banking units (OBUs).

In contemplating the emergence of Mumbai as an IFC, one has to envision movement towards the removal of capital controls, on a purely hypothetical basis at the start. But, assume for a moment that capital controls were out of the way: Would strong revenues immediately emanate from exports of financial services? Or, even with the removal of capital controls would there be structural deficiencies and institutional gaps in the financial markets that would impede the export of IFS? The purpose of this chapter is to answer the question: If India had to sell services in global IFS markets today, and capital controls were not an issue, what are the other key deficiencies of the existing financial system that would prevent this from happening?

2. Inadequate currency and bond markets (BCD Nexus)

The most important deficiencies that India must overcome, in developing its domestic financial market and moving towards an IFC, lies in the absence of efficient, liquid, currency and bond markets. Transactions on currency spot and derivatives markets are, by definition, the lifeblood of an IFC. Every IFS customer generates immediate transactions on the currency spot (and possibly derivatives) markets even if he/she just buys Indian equity shares, bonds, country index funds, index futures or options. Furthermore, every successful IFC is a centre for global currency trading. In the absence of currency trading, a country cannot have a 'real' IFC. Currency trading services, sold by Indian markets to national, regional and global customers, are an essential ingredient in the creation of a functional Indian IFC in Mumbai.

Similar considerations surround the domestic bond market.[1] Before too long, the INR will be one of the six most traded currencies (*i.e.*, the USD, JPY, EUR, GBP, CNY and INR) in the world. International bond issues, sovereign and corporate, will be denominated in these six currencies. In many cases, global issuers will probably want to issue and trade debt securities in all of them. For an IFC in Mumbai to succeed it will be essential to attract *global* issuers and investors into the Indian bond market. An appetite will need to be created and expanded on the part of global investors for INR denominated bonds issued by domestic and foreign, public and private, entities. This will require a liquid and arbitrage-free INR yield curve, backed by interest rate and credit default protection derivatives of every kind.

The use of the INR in global markets for bond issuance, portfolio trading, and investment necessitates an active market for *all* bonds issued by every type of issuer, with an even more active market for credit derivatives tiered on top. These essentials – the yield curve and interest rate derivatives markets and the currency spot and derivatives markets – are inextricably bound together by arbitrage. The currency forward curve is but a reflection of interest rate differentials. A plethora of arbitrage and speculative trading strategies fuse the currency and debt markets.[2]

[1] For a treatment of the problems of bond markets in Asia, see Eichengreen (2004).

[2] Arbitrage is well understood to be the foundation and cornerstone of market efficiency. As Shleifer and Vishny (1997) have famously pointed out, quasi-infinite capital in the hands of arbitrageurs cannot be taken for

Box 6.1: *Indian Experience with Offshore Banking Units (OBUs)*

In the Exim Policy of 2002–07, the Commerce Minister announced that, for the first time in India, OBUs would be permitted to be set up in Special Economic Zones (SEZs). Accordingly, RBI formulated a scheme in November 2002 that was implemented with some modifications in 2003. However, the scheme implemented is not an OBU in the usual sense of the term. In RBI's scheme OBUs are 'SEZ Banks'. They are only permitted to serve customers in an SEZ or lend to SEZ developers.

The SEZ, aimed at promoting internationally competitive exports, is a duty free enclave, deemed to be foreign territory for the purpose of trade operations and duties/tariffs. The OBUs are like *foreign* branches of banks operating in India but located in India. Any bank authorized to deal in foreign exchange can set up an OBU in a SEZ. Banks with overseas branches and experience of running OBUs are given preference. This differs considerably from the notion of an OBU outside India. OBUs in countries such as Singapore and Bahrain have lighter regulatory obligations for minimum capital, taxation, and reserve requirements. In India, OBUs are exempt from CRR requirements; but they are not ordinarily exempt from the SLR requirements (except ICICI Bank that was given special treatment for 3 years). Profits of OBUs are not taxable for the first 5 years of operations. Although no separate capital is required for OBUs, the parent bank is required to provide a minimum of US$10 million to its OBU as start-up funds. All prudential norms applicable to overseas branches of Indian banks would apply to the OBUs. OBUs in India, as in some other countries, are intended to carry out wholesale banking operations dealing only in foreign currencies. An OBU can meet the foreign currency needs of corporates in the domestic tariff area (DTA) but only under the scheme of external commercial borrowings (ECBs); *i.e.*, only for term loans with a minimum maturity of 3 years, and up to a maximum of 25% of its total liabilities. OBUs are prohibited from undertaking cash transactions.

Their sources of funding must be entirely external, other than the initial support from the parent bank and foreign currency accounts of units in the SEZ. OBUs can get foreign currency deposits of non-residents, including non-resident Indians, subject to KYC guidelines. However, deposits of OBUs are not covered by deposit insurance. OBUs can invest their funds overseas and they can trade in foreign currencies abroad. OBUs are not treated as foreign branches in all respects. They do not enjoy the benefits that OBUs do in other countries. For example, OBUs in India cannot lend overseas nor participate in international syndications or consortia at par with foreign offices. They cannot finance overseas acquisitions. They cannot even fund third country trade.

At present, there are about a dozen SEZs in the country and half a dozen banks have set up OBUs. At SEEPZ Mumbai, the banks that have set up OBUs are SBI, ICICI, PNB, BOB, and UBI. At NOIDA, Canara Bank has set up an OBU. While data are not available on the total size of OBU operations, the scheme has not induced export of IFS. The OBU experiment, limited to SEZs, is regarded by the banks with these licenses and by users as a damp squib.

These relationships are summarised in Figure 6.1. Speculation and arbitrage (which are essential ingredients for ensuring liquidity) in the three key markets – the INR bond market, the currency market and the derivatives (BCD) market – will integrate tightly the INR yield curve, Indian credit quality curves, and foreign yield curves such as those in the USD, EUR, GBP, and JPY.

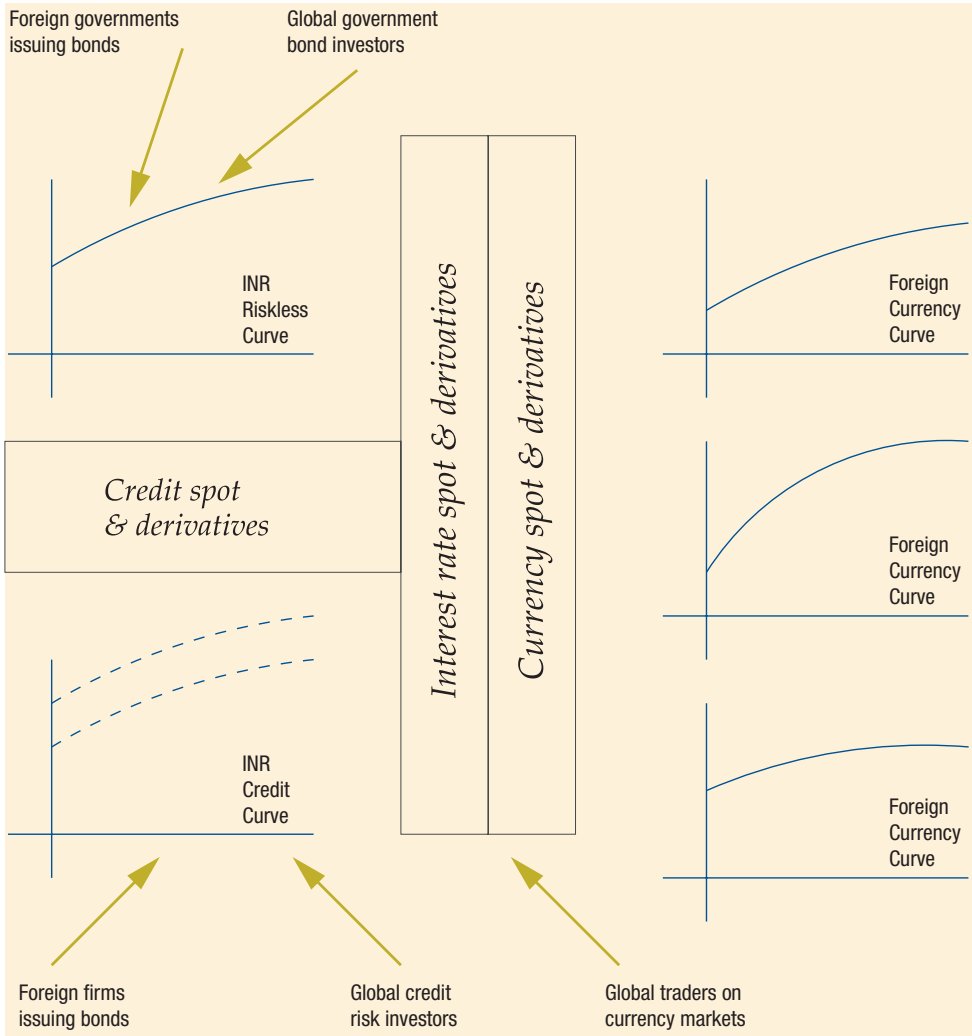
Once these informational relationships are in place, with three liquid and efficient markets, they will set the stage for five IFS flows: *i.e.*, from two types of foreign issuers (governments and corporates), from two types of foreign fixed income investors (in government and corporate bonds), and from global customers of currency trading. For these reasons, in creating an IFC in Mumbai, the Indian authorities need to comprehend the challenge of developing the BCD nexus – *i.e.*, the bond market, the currency market, and the derivatives market (in interest rates and currencies) – as an integral package whose individual components cannot be de-linked. All three markets need to develop rapidly in order to: attract local and foreign participation; have vibrant trading in spot and derivatives; have vibrant speculation and arbitrage to guarantee liquidity. In the case of the yield curve, the defining issue is that of attracting foreign issuers and investors into the INR yield curve.

The absence of these three markets is a key impediment to an IFC emerging in Mumbai today and offering the basic range of IFS. At present, these markets have fundamental problems. Institutional structures are weak. Liquidity is poor. There is no width or depth. Participation is artificially constrained through a number of eligibility and origin barriers. Speculative price discovery is lacking because arbitrageurs and risk-takers – who are essential for providing liquidity, and binding these markets by ensuring informational efficiency – are lacking. Their participation is discouraged.

In that context, it is odd for Indian regulators to regard risk-hedging through selling futures as proper, safe and prudent, while seeing buying futures as speculative and harmful. How can counter-parties buy a future or option (deemed good and prudent) in a market if there is no one to sell it, because it is deemed risky

granted. This suggests a special role for public policy in identifying and removing regulatory restrictions which inhibit arbitrage transactions.

Figure 6.1: Integrated markets for interest rates, currencies and credit risk



and speculative and therefore discouraged? The implicit value judgements made about the desirability or undesirability of certain types of activities or players by regulators in this regard need to be revisited and revised.

An example of the difficulties with these markets in India at present lies in the most basic arbitrage relationship on the currency forward market: *i.e.*, *covered interest parity* (CIP). The CIP principle requires that two alternatives for borrowing should have identical returns: (a) borrowing in USD and using funds in India with a locked-in INR/USD exchange rate for repayment in USD; versus (b) borrowing in INR over the same maturity. In an efficient currency market, arbitrage by risk-takers will ensure that these two paths will yield borrowing at the identical all-in cost after currency and interest rate risks are covered. In an inefficient market, with barriers to arbitrage they almost certainly will not; instead they will increase exposure to currency and interest rate risk (while the borrowing is outstanding) and will distort the costs of hedging.

In India, the CIP principle is persistently violated (Figure 6.2) to a point where the CIP deviation is utilised as a predictor of future currency fluctuations (Shah and Patnaik, 2007, Forthcoming). For a comparison, in mature market economies, the size of the CIP deviation seldom exceeds 10 basis points. The CIP deviation in India points to hurdles in the way of arbitrage

transactions that induce CIP in all mature financial markets.

Financial integration between the three elements of the bond-currency-derivatives (BCD) nexus – *i.e.*, the risk-free INR yield curve, the currency market and the credit risk market – is supported by other elements that go beyond them.

The market for corporate bonds is, in turn, tightly linked to the market for corporate equities. Indeed, modern financial economics sees the corporate bond and the corporate share as being two different derivatives written on the same underlying assets of the firm (Merton, 1974). The underlying assets of many firms are interlinked with commodity derivatives: *e.g.*, there is a clear relationship between steel futures and the shares/bonds issued by Tata Steel. Finally, in an age of import parity pricing, there are tight relationships between currency fluctuations and Indian commodity futures markets. The larger picture is thus one where there is full financial integration, where speculative and arbitrage strategies run across all kinds of financial instruments, inducing liquidity and market efficiency.

In India's present situation, considerable progress has been made with achieving organised financial trading for equities, equity derivatives and commodity futures.[3] But the development of a concomitant BCD nexus has lagged, though it is a pivotal element of the global IFS market. Hence, any attempt to create an IFC in India has to frontally attack the barriers that have held back the emergence of the BCD nexus.

3. Missing currency & derivatives markets: An illustration

'Missing markets' in currencies and derivatives are markets that either do not exist in India, or are so small as to be insignificant, when compared with the requirements of the global market for IFS. In order to understand gaps in the range of traded IFS products where India has (or lacks) liquidity, it is useful to make normative and comparative judgments – even if crude and somewhat imprecise – in order to identify areas where India is doing well and areas where it is weak.

Figure 6.2: Deviation from covered interest parity on the INR/USD

The US provides a good benchmark comparison because it is (like India) a large domestic economy with primarily domestic-focused financial markets where the IFS component is relatively small. In London the opposite is the case with its financial markets being primarily global IFS-focused. London does not serve as large a national economy as the US although it does serve a regional economy (the EU) that is now larger than the US. The size of financial markets in London is disproportionately large in comparison with the size of the UK economy, but not against the size of the EU. For that reason it does not provide as useful a comparator for Mumbai.

An Illustrative Comparison: In comparing India with the US, two ratios are relevant:

- In the Indian fiscal year 2005–06, US GDP (in nominal US dollars) was $12.66 trillion. Indian GDP at that time was $725 billion. In other words the US economy was 17.5 times larger than India's in nominal terms.
- On 24th October 2006, the Russell 3000, a stock market index of 3,000 companies, which covers practically all US equities listed, had a market capitalisation of $15.5 trillion. On 30th September 2006, the CMIE-Cospi index of 2,485 firms had a market capitalisation of $696 billion. In other words total market capitalisation of US listed firms was 22.3 times the size of Indian listed firms in nominal dollar terms.

[3] See Thomas (2003, 2005).

Table 6.1: Biggest futures contracts in the US by daily trading volume, with an associated illustrative Indian calculation showing one-twentieth this turnover

Rank	US exchange	Futures contract	Turnover (USD bn. per day)	5% of US turnover (INR crores per day)
1	CME	Eurodollar	1581.75	357,317
2	CBOT	Federal Funds (30 day)	224.61	50,739
3	CBOT	Treasury notes (10 year)	95.41	21,553
4	NYBOT	Sugar #11	58.21	13,150
5	CBOT	Treasury notes (5 year)	52.53	11,867
6	CME	S&P 500 (mini contract)	50.10	11,318
7	CBOT	Treasury bonds	39.79	8,989
8	CME	Currency futures – Euro	21.52	4,861
9	CME	S&P 500 (big contract)	18.60	4,202
10	CBOT	Treasury notes (2 year)	17.57	3,969
11	NYMEX	Crude oil	13.53	3,056
12	CME	NASDAQ 100 (small contract)	9.05	2,044
13	CME	Russell 2000 (small contract)	7.42	1,676
14	NYMEX	Natural gas	6.90	1,559
15	CME	Currency (Yen)	5.70	1,288
16	CBOT	Dow Jones index	5.26	1,188
17	CME	Currency (Pound)	3.98	899
18	NYMEX	No.2 heating oil	3.62	818
19	CME	Currency (Swiss Franc)	3.14	709
20	NYMEX	Gold	2.83	639

These relationships suggest that, as a rule-of-thumb, by averaging these two broad multiples, financial stocks/flows in India should be just under one-twentieth (or 5%) of the amount of those in the US. It must be emphasised that this percentage should not be taken literally but illustratively. There will be contract-to-contract variations reflecting differences between the two countries. However, the intent is not to isolate fine-grained differences but to understand the dimensions of broad gaps.

Table 6.1 shows the twenty largest futures contracts in the US.[4] The turnover of each, measured in billions of US dollars, is shown. In addition, 5% of this turnover, expressed in crores of Indian rupees, is also shown. This serves as an illustrative number which illustrates in broad brush strokes where the gaps in India lie.

The two S&P 500 futures contracts on equities (a big contract and a small contract) add up to a trading volume of US$68.7 billion per day of turnover; 5% of this amount works out to about Rs. 15,497 crores (or INR 155 billion) per day. That is in the ball-park when compared with daily trading in Nifty futures. But, this one isolated case apart, India lags substantially in every other respect:

- The **key interest rate contracts** in US markets – Eurodollar futures, Fed funds futures, Treasury notes (10, 5 and 2 years), Treasury bond contracts – **are all missing in India**.
- India has made a beginning with commodity futures. Some of the turnover numbers in India have crossed the 5% threshold. But, as yet, these markets lack the regulatory credibility required to attract national or global IFS customers.
- India has only one successful stock index contract – the Nifty. Other contracts such as the Nifty Junior have yet to commence trading or obtain liquidity.
- The trading of currency futures is banned in India.

The India/US crude comparative ratio of 1:20 or 5% cannot, of course, be interpreted as hard and fast. The share of agriculture in Indian GDP is larger than for the US; so Indian agricultural commodity derivative contracts should have ratios of greater than 5%. In any row of the table, interesting differences can be pointed out between the

[4]We are grateful to Michael Gorham and Poulomi Kundu of the Illinois Institute of Technology, Chicago, who constructed this information from primary sources at the request of the Committee.

US and India where the ratio should be higher or lower than 5%. The main point of this table is to show the areas where there is a large gap when compared with the normative ratio of 5%.

Apart from Nifty futures, there are important gaps in all rows. The premier derivatives exchange in the US – the CME Group, which represents a merger of the erstwhile CME and the erstwhile CBOT – has a daily turnover (futures and options) of $4.4 trillion a day: *i.e.*, trading every day is valued at roughly one-third of annual US GDP. The premier exchange where derivatives are traded in India – the NSE – is well below 5% of this amount (which works out to $220 billion a day).

If India is to export IFS a normative goal of 5% of the market size of the US is not good enough. Indian GDP is growing at a trend rate of 7 per cent, while US GDP is growing at a trend rate of 2.5 per cent. Taking that into account, within 10 years the multiple of 20 will be replaced by a multiple of 13. Or, inversely, from 5% of US contract equivalents in nominal terms, Indian values will come up to 7.7%. From an IFS/IFC perspective, however, a market size in India that is merely 5% or 8% that of the US is not sufficient for entry into a globally competitive IFS market. If India had an USD-EUR futures market that was only 5% the size of the USD-EUR futures market at the Chicago Mercantile Exchange, the IFS business that would come to India for this contract would be zero.

Purchasing power parity (PPP) translations are made by economists because nominal exchange rates do not reflect reality. **A reasonable rule-of-thumb that India should utilise for the desired size of an Indian financial market, from an IFS export perspective, is 15% of the size of a comparable US market, and not 5%**. That would reflect economic reality more closely by removing the distortions of an exchange rate that does not reflect the 'real' size of the Indian economy in comparison with the US. Applying such a PPP adjustment, it would stand to reason that if the CME Group does $4.4 trillion of derivatives turnover a day, India should have about $660 billion (or Rs. 30 trillion) of derivatives turnover per day at the NSE. HPEC believes that only when NSE is at a point of doing such a daily turnover of $600 billion a day will crucial exchange-traded derivatives in India have liquidity that is competitive when compared against global exchanges.

With a number of critical missing markets in bonds, currencies and derivatives, Indian finance is operating in a setting where the equity spot and derivatives markets are the only financial markets that are liquid, efficient and market rather than fiat driven. This distorts the relative importance of the equity market for financial and non-financial firms and for signalling. The supporting bond, currency and derivative (BCD) markets either do not exist or are mutations. In a properly functioning market economy with a responsive financial system, when relevant news breaks, adjustments should take place instantaneously at myriad places: *i.e.*, in currencies, interest rates, credit spreads and stock prices. In India, the brunt of adjustment to all news is concentrated in equities. That has probably resulted in excessive volatility in that one market because the other markets needed to share the strain do not exist or function as they should.

Similarly, the differences between a modestly functioning equity market, and other dysfunctional and undeveloped financial markets (in particular the bond market), have led to a situation where equity financing (internal and external) dominates the financing of firms and distorts efficient resource allocation and use. In 2004–05, the market value of equity for all large firms in India stood at Rs. 16.7 trillion. Their total debt stood at only Rs. 6 trillion. Under normal leveraging that figure should have been closer to Rs. 33 trillion. Thus, on a market value basis, the debt-equity ratio of corporate India stood at just 0.36 (Thomas, 2006) or about a fifth of what it should have been. That represents a phenomenal degree of inefficient under-leveraging, and a distortion of returns between equity and debt, than would be expected in a more efficient market economy with more balanced debt and equity markets.

This domination of equity financing in corporate finance reflects in part the rational

choice of minimising leverage on the part of firms faced with considerable uncertainty and crowding out by government debt. But it also reflects the differential pace of progress in the development of the equity and debt markets.

4. The market weakness of institutional investors

The other weak link in Indian finance lies in the relative incapacity of institutional investors in India to be more responsive to market-signals, to induce liquidity and market efficiency, and to interface between India and the world.

As far as mutual funds are concerned, the regulatory framework in India and the behaviour of such funds as institutional investors broadly reflects world standards. But, at present, mutual funds have assets under management (AUM) of about INR 3 trillion or just 9% of GDP. This is not large enough to influence overall price formation.

The universe of other institutional investors in India – *i.e.*, banks, insurance companies, and pension funds – is characterised by too large a proportion of public ownership (and therefore prone to directed, rather than market-responsive, behaviour). There are barriers to the entry of a wider range of private financial firms as institutional investors, coupled with many regulatory weaknesses. These constraints coalesce to make a considerable difference between the role that market-responsive institutional investors normally play in mature market economies and the role that (mainly publicly owned) institutional investors play in India.

The achievements of the Indian equity market in building speculative price discovery have been driven primarily by non-institutional participants, with only a supporting role played by mutual funds and FIIs. The equity market reflects a unique situation in India. Financial repression was absent in that market. The government did not have much overt involvement in influencing prices (except when UTI was the dominant mutual fund and responded to government direction) and there were no quantitative controls. Other markets in the country lack speculative price discovery given the constraints of institutional investors and the lack of non-institutional participation.

One strategy for India would be to replicate the features of its equity market in other financial markets: *i.e.*, harnessing non-institutional participants to induce liquidity and market efficiency. Non-institutional investors are a powerful agent for driving market efficiency. Each participant is motivated, deriving the full profits or losses of his or her own actions. There are no principal-agent problems that affect decisions made by employees of financial firms. The actions of participants are oriented towards rationality and maximisation, and undistorted by regulators. So, this approach would work to some extent. But the imperatives of creating a viable IFC in Mumbai requires going beyond this and building a wider, more diversified, base of 'normal' institutional investors because they have unique advantages in certain respects:

- Institutional investors have the capacity to build systematic processes of investment analysis and decision-making that can be applied across millions of transactions in different market segments. Sophisticated, modern analytical methodologies based on quantitative financial economics can be embedded into these processes. Institutional participants can engage in unique market-efficiency-enhancing trades when such groundwork drives their decision making.
- Institutional investors can marshal pools of capital that individuals cannot match. India is a large economy. Institutional investors are the only channel through which the large mass of savings of the economy can be brought to bear in financial markets to induce greater efficiency and liquidity. Only a tiny fraction of the country is presently able to participate directly in markets. The assets of most households, and thus the opportunity for India to use its huge size in order for Mumbai to succeed as an IFC – will not come into play in the

Table 6.2: Comparing Mumbai against existing IFCs

Attributes, characteristics and capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	London	New York	Tokyo	S'pore	F'furt	Mumbai
B. Supply factors for IFS: Markets, products & services						
B1. Full Array of international banking services for corporates and individuals	9	9	9	10	6	5
B2. Full Array of international capital markets, products and services	10	10	7	8	5	3
B3. Full Array of risk management services	10	10	5	7	6	2
B4. Full Array of insurance and reinsurance services	10	10	7	5	8	1
B5. Full Array of commodities markets, trading and hedging services	9	9	5	5	4	1
B6. Full Array of business support services for IFS (accounting, legal, IT support)	10	10	8	10	8	5
C. Institution/market endowments enabling range of IFS product/service offerings:						
C1. Range, width, depth of international commercial banks represented in the IFC	10	7	5	8	6	2
C2. Range of global, regional and national investment banks represented in the IFC	10	10	8	9	7	2
C3. Range of global, regional and national insurance companies represented	10	9	8	6	8	2
C4. Existence of wide and deep reinsurance markets	10	9	8	6	9	1
C5. Existence of global, regional, national equity markets (*i.e.*, exchanges & support)	10	10	9	8	6	4
C6. Existence of wide and deep bond markets for government, corporate, other bonds	10	10	9	5	9	1
C7. Existence of wide, deep and liquid derivatives markets for: Equities and indexes	10	10	6	7	6	5
Interest rates	10	10	8	7	7	1
Currencies	10	10	7	8	8	1
Commodities	10	8	7	5	8	3
C8. Innovative Abilities of Institutions and Markets	10	10	5	6	4	5
D. Services offered						
D1. Fund Raising, Wholesale and Corporate Banking	10	10	8	7	7	5
D2. Asset Management	10	10	8	9	6	4
D3. Private Banking & Wealth Management	10	7	5	7	5	2
D4. Global Tax Optimisation & Management	6	5	3	8	4	1
D5. Corporate Treasury Management	10	10	9	8	8	4
D6. Risk Management	10	10	7	7	6	2
D7. Mergers & Acquisitions: (national, regional, global)	10	10	6	5	5	3
D8. Financial Engineering for Large Complex Project and PPP Financing	10	10	8	7	6	3
D9. Leasing & Structured Financing of Mobile Capital Assets (ships, planes *etc.*)	10	10	9	9	10	2

financial markets without considerable strengthening of institutional investors.

- Institutional investors – both domestic and foreign – are likely to have a unique edge in intermediating between India and the world. International finance involves greater complexity and new kinds of knowledge than are reflected in the capabilities of extant non-institutional participants in India. If institutional investors are faced with enough competition, there arise the possibility of their building the needed quality of human capital and the analytical processes required to perform such roles.

The Nifty derivatives market – justly portrayed as a success with the creation of a genuine financial market characterised by speculative price discovery, and free play of hedging and arbitrage strategies – still has residual weaknesses. Mispricing persists in that market (Thomas, 2003). Significant liquidity is limited to a maturity of one month, and at-the-money options. In the NSE derivatives market, liquidity for options lags futures liquidity by too wide a margin. While turnover in Nifty derivatives is impressive, the overall health and structure of this market leaves much to be desired. A good case could be made that many of the problems of Nifty derivatives would be resolved by having an adequate mass of institutional investors, with sufficient room for manoeuvre, so that they could perform their proper role as they do elsewhere in the world. It also indicates that banks should be more involved players in the derivatives market especially if it offered interest rate and currency derivatives for hedging their debt portfolios.

In summary, the most successful parts of Indian finance at present are those in which non-institutional participants have engaged in rational, undistorted, speculative price discovery. This large mass of retail participants in sophisticated

Table 6.3: Comparing Mumbai against emerging IFCs

Attributes, characteristics and capabilities of an IFC: *(Scale of 0–10 with 0 = worst;10 = best)*	Mumbai	Hong Kong	Labuan	Seoul	Sydney	Dubai
B. Supply factors for IFS: Markets, products & services						
B1. Full Array of international banking services for corporates and individuals	5	7	4	6	7	6
B2. Full Array of international capital markets, products and services	3	6	2	5	7	5
B3. Full Array of risk management services	2	5	2	5	6	5
B4. Full Array of insurance and reinsurance services	1	5	0	3	5	2
B5. Full Array of commodities markets, trading and hedging services	1	6	2	5	6	2
B6. Full Array of business support services for IFS (accounting, legal, IT support)	5	8	5	5	8	6
C. Institution/market endowments enabling range of IFS product/service offerings:						
C1. Range, width, depth of international commercial banks represented in the IFC	2	7	5	5	7	4
C2. Range of global, regional and national investment banks represented in the IFC	2	6	1	3	6	4
C3. Range of global, regional and national insurance companies represented	2	6	1	5	6	3
C4. Existence of wide and deep reinsurance markets	1	3	0	3	4	1
C5. Existence of global, regional, national equity markets (*i.e.*, exchanges & support)	4	5	2	4	5	2
C6. Existence of wide and deep bond markets for government, corporate, other bonds	1	1	0	4	7	0
C7. Existence of wide, deep and liquid derivatives markets for: Equities and indexes	5	5	1	5	6	2
Interest rates	1	3	0	4	7	1
Currencies	1	7	2	6	8	5
Commodities	3	5	0	4	6	3
C8. Innovative Abilities of Institutions and Markets	5	5	1	4	7	5
D. Services offered						
D1. Fund Raising, Wholesale and Corporate Banking	5	7	3	7	7	5
D2. Asset Management	4	9	4	6	6	8
D3. Private Banking & Wealth Management	2	9	6	4	5	9
D4. Global Tax Optimisation & Management	1	9	7	4	4	9
D5. Corporate Treasury Management	4	7	2	7	8	7
D6. Risk Management	2	6	1	4	6	3
D7. Mergers & Acquisitions: (national, regional, global)	3	5	0	5	5	4
D8. Financial Engineering for Large Complex Project and PPP Financing	3	5	1	7	6	5
D9. Leasing & Structured Financing of Mobile Capital Assets (ships, planes *etc.*)	2	9	5	5	5	7

financial markets is a unique edge that India has when compared with established or emerging IFCs. But, a world-class IFC cannot be built without private institutional investors. Such investors bring special qualities through their participation in financial markets by: (a) using sophisticated analytical tools in quantitative trading systems; (b) bringing enormous pools of capital into financial markets; and (c) linking Indian finance with the rest of the world. India has established a solid beachhead with institutional investors such as mutual funds and FIIs. The regulatory strategies applied in these two areas need to be deployed into reaching those parts of Indian finance that have not yet been reached by these types of investors.

5. A cross-country comparison

As has been done elsewhere in this report, we have attempted an international comparison of Mumbai against established and emerging IFCs on a variety of metrics. A subjective classification has been made, where each city has been scored on a set of measures on a scale from 0 to 10.

As Tables 6.2 and 6.3 suggest, there is a large gap between Mumbai and established as well as emerging IFCs on a wide variety of *supply factors* in the provision of IFS.

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 under-compensated 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 re-orienting 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 ±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.

Financial Regime Governance: Its role in an IFC and a comparative perspective

chapter 8

1. The intrinsic value of regulation for IFS production

The fundamental difference between the pre- and post-1991 approaches to development strategy in India – i.e. the themes of outward orientation and openness to enhance technology, efficiency, productivity, quality and competitiveness throughout the economy – apply with equal force when it comes to providing IFS. An inward-looking policy aimed at protecting the domestic market for financial services (e.g. protecting financial firms from the force of competition from other domestic and foreign competitors) exacerbates and prolongs: intermediation inefficiency, over-staffing, cost-ineffectiveness, higher intermediation margins, poor management, poor service quality, sub-optimal technology, and inability to capture fully a number of economies of size and scale.

In establishing an appropriate context for the discussion on Indian financial regulation that follows, it is essential to underline that, since 1991, India has made a belated but fundamental shift from an import-substituting development model to an outward oriented strategy emphasising greater openness and trade (particularly exports). In the process, India has discovered that achieving export-competitiveness requires a combination of: (a) cost-effective human capital inputs; (b) good management and corporate governance; (c) the use of cutting-edge technology that is continuously updated; and (d) the application of best global practices. A side-effect has been that export-orientation has improved the productivity and efficiency of production, as well as the quality/quantity of goods and services available, for the domestic market. In addition, competing in global markets has proved to be useful in sidestepping problems of domestic competition policy, reducing rent-seeking impulses in local political economy, and thus accelerating growth.

However, it is important to take note of a fundamental difference between the export of financial services and the export of goods and non-financial services.

IFS *exports are intrinsically different from ordinary exports*. When a car is exported from India, its quality/value is measured without regard to the difficulties encountered in its manufacture. Dealers/customers who sell/use the car – anywhere in the world – evaluate/verify its quality and relative value by applying objective tests. An Indian car is accepted by the world market if it passes these tests; it is rejected if it does not.

Production of the car in India might take place in a difficult institutional and operating environment characterised by a number of weaknesses such as: poor infrastructure, restrictive labour laws, high real costs of capital, inefficient taxation, a weak legal system, difficult trade unions, poor public governance, poor standards of regulation (e.g. health and safety standards, factory hygiene, conformity with local planning rules, etc.).

These difficulties induce additional 'coping costs' for firms manufacturing cars

in India. For example, an industrial process that consumes tap water in an OECD country might require a special purification plant in an India; or the unreliability of power supply may require investment in a captive power plant; or a car manufacturer may need to have special infrastructure for effluent discharge and sewage. However, once the car is made, these problems do not affect either the reality or user perceptions of its quality. An objective technical assessment of the finished car is '*ahistorical*'; it has no links to the policy, regulatory or physical environment under which it was produced. This applies for a wide range of ordinary goods and services – ranging from motorcycles to steel to computer programmes. For this reason, India has made considerable progress in exporting a variety of goods and services, even though the underlying institutional environment continues to be deficient in many respects. High coping costs induce lower wages, yielding globally competitive prices for finished goods in most industries.

But this separation between final product and the institutional/policy and regulatory environment in which it was produced (i.e. the regime that governed its production) does not hold for IFS. Finance is about the fulfilment of contingent contracts that specify performance of stated actions by stated parties at future dates. The quality, performance, and value of a financial product or service depends critically on ***confidence*** in the mind of the customer, and ***trust*** on his/her part, that stated actions/obligations at future dates will be performed/fulfilled as promised. Given their very nature, the implicit obligations that underlie all financial contracts, and the regulatory regime that governs their fulfilment, become an intrinsic part of such contracts – represented operationally as financial products and services.

Financial Regime Governance: i.e. the framework of laws, rules and regulations governing financial products/services (and the way in which authorised regulatory institutions specify, apply and enforce them) is therefore ***intrinsic*** to the value of financial services in a way that governance is not intrinsic to the value of a car or a ball bearing. For example, a simple deposit at a bank involves the performance of an action or fulfilment of an obligation by the bank to the customer at a future date: i.e. when one buys or invests in a CD for Rs. 1,000 at an interest of 10% for 12 months, one expects the bank to return Rs. 1,100 at the end of that period with even thinking about it. The thought process of the customer involves the financial regime governance at two levels. First, *is the bank well regulated and supervised, so as to induce a low probability of failure?* And, *if the bank goes bankrupt, is there an effective bankruptcy procedure with a high and predictable recovery rate, on a highly predictable time horizon?* If Mumbai is to become an IFC, and attract global customers who place deposits in banks in Mumbai, then an intrinsic part of the product offering would be to have answers to these questions that instil confidence in the global customer that in these and other respects an IFC in Mumbai operates with world-class standards.

When an Austrian customer buys an Indian car, he is concerned with its quality, performance, reliability and functionality. He is blithely unaware of the Indian policy framework for auto manufacturing, the legal regime, the infirmities of physical infrastructure, or the capability and competence of the regulatory institutions that governed its production. Once the car is produced and used, those connections cease to matter. In contrast, when an Austrian customer places an order on an Indian USD-CNY futures market, or buys an Indian bond or share, he is inextricably and inexorably affected by Indian law and regulation. Indian law and regulation are an intrinsic part of the financial product/service purchased. They cannot be stripped out.

For that reason, one of the key elements in judging the technical merits and relative safety of a USD-CNY futures position on an Indian exchange, in the eyes of a foreign customer, are the strengths and weaknesses of Indian law and regulation; as well as the credibility and capability of its regulatory institutions and exchanges. Hence, achieving success in the export of IFS such as currency futures trading, or involving

global investor participation in Indian bond, equity, derivatives or commodity markets, is not just about having good issuers, attractive products that are liquid and tradable, or globally competitive entities in the private sector, such as exchanges or brokerage firms. It is equally about having foundations, institutions and practices of law and regulation or, more holistically, of ***financial regime governance*** that is also globally competitive in meeting the best standards of regulatory practice applied around the world. In this sense, Mumbai's seeking to become a globally competitive IFC requires Indian law, regulation and overall financial regime governance to be as good as the best 'state-of-the-art' equivalents at other IFCs.

Financial regulation is thus an intrinsic, inseparable component of any financial service/product; whether it is sold domestically or internationally. But, when sold internationally, the regulatory component of that financial service/product must conform to the best international norms/practices for it to be acceptable to global markets and the financial firms and players operating in them. This is a key premise that must be appreciated at policy-making levels.

When a financial product is sold or a service is provided *across borders*, issues of confidence and trust in the fulfilment of obligations by counterparties become more acute. This has two implications for an IFC in Mumbai. *First*, India as a newcomer in the global IFC space must aspire to higher standards than those in London and New York, in order to attract global IFS business. The same infirmities embedded in London and New York for historical reasons may not be acceptable to global customers operating in a new Indian IFC. Second, India will not be able to make rapid inroads into the global customer base without IFS provision in Mumbai by *global financial firms* that are recognised brand-names to global IFS customers. For Mumbai to develop as a credible IFC it will not be sufficient for IFS to be provided only or mainly by Indian financial firms that are not as yet globally recognised brand-names.

2. Three levels of international competition on regulation and law

International competition on issues of financial regulation and law, which shapes competition in IFS provision, occurs at three levels:

1. ***Banning products or markets; banning export:*** At the simplest level, one IFC can lose out to others because it is blocked from competing with them in the provision of particular financial products/services or of a wide range of them. At present, most products and services in the global IFS space are not exported from India because their production (even for the domestic financial system), or sale to foreigners, is prohibited.
2. ***Rules limiting the success of products or markets when they are permitted:*** Even when provision of a certain kind of IFS is permitted, restrictive regulation can limit the success of an IFC in providing IFS. Limitations on participation by certain types of firms in certain markets (e.g. banks being prohibited from operating in derivatives markets or foreign banks being prohibited from doing government business) or on proscribing certain kinds of trading strategies (e.g. algorithmic trading and DMA), can decisively influence the success of a product or a market by circumscribing its use to the point where the market becomes too small, fractured and illiquid with virtually no market-making. What are ostensibly 'prudential' requirements can limit product/service success when there is overstretch beyond a technically sound notion of prudence.
3. ***Intangible issues of trust and level playing field:*** Finally, the export of IFS is influenced by intangible concerns about legal/regulatory impartiality, fairness and trust as seen by private players (whether domestic or foreign) and global customers. Global customers have a choice of placing orders in competing IFCs for their IFS transactions. That choice is influenced by perceptions about

the soundness, stability and fairness of the legal/regulatory environment which an IFC has; i.e. the extent to which it is felt by customers that a particular IFC has fair processes of enforcement, and treats non-residents fairly.

3. Where does India stand? An illustrative bird's eye view

To obtain a bird's eye view on issues concerning regulation and the legal system, as they influence global competition on IFS, this report examines them in comparison against existing and emerging IFCs through a scoring scheme from 0 (worst) to 10 (best) on a list of crude but useful illustrative indicators. This is applied to groups of existing and of emerging IFCs. The indicators, and the numerical values for scoring shown below, are admittedly subjective. There is an inevitable cross-over where different indicators pertain to overlapping, and yet distinct, issues. Much time has been spent debating the choice of indicators, and the numerical values for each city and each indicator to obtain a more objective picture. But we should stress that there is no objective methodology underlying these numerical values.

These tables should be cautiously utilised as an *illustrative* input for insights and for policy analysis, rather than as precise numerical values that should be argued *ad infinitum*. Also it has to be recognised that in most of the comparator cities scores are based on subjective judgements about regulatory regimes for IFS and IFCs that are already in place. In most IFCs there is some overlap between regulation of the overall financial system *per se*, and regulation of IFS provided through an IFC. In the case of Mumbai there is no specific regime for IFS or an IFC in place yet. Its scores therefore reflect judgements about its current governance regime for financial services as a whole, including those for a limited range of IFS involving foreign institutional investors FIIs and the IFS activities of foreign banks.

Thirteen aspects of the quality and impact of the regulatory regime for the financial sector, from the viewpoint of global competitiveness in IFS production, are scored. The first measure is that of ensuring systemic stability (E1), the task of avoiding crises that engulf the financial system and the macro-economy at large. One part of this concerns the protection of the integrity and soundness of financial institutions (E2). But equally, recognising that firm failure is an inherent feature and a learning mechanism in any market economy, a sound regulatory regime has effective coping mechanisms when market and institutional failures do take place (E3) so that failures are handled in a manner that does not induce panic. A sound regulatory regime is one where good quality risk management occurs at the level of firms, markets and the system at large (E4). Failures to achieve this can arise from faulty rules, in a rules-based regulatory environment, or from moral hazard with finance firms which believe they will be bailed out in distress.

A key test of a sound regulatory regime is whether it assures consumer protection (E5). What matters is the degree of genuine protection that consumers get as opposed to a regime that is strong on rhetoric about the importance of consumers while failing to uphold the interests of the consumer in reality. As an example, financial repression is inimical to the interests of all households. It is inconsistent with consumer protection, regardless of rhetorical claims made by policy makers about the importance of the consumer. Another aspect of consumer protection is the distinction between notions of what consumer protection actually is, as opposed to making it synonymous with adherence with an intricate system of rules specified by regulators. As is now understood from global experience, financial firms often have clever compliance departments to ensure adherence with complex rules, while violating the spirit and reality of consumer protection in the conduct of business.

One of the strongest tools for consumer protection is competition policy (E6). A sound regulatory regime is one in which there is full and effective competition and where every market is genuinely contestable. This applies in two ways:

Box 8.1: *Case Study - The Nikkei 225 futures*

The newspaper Nihon Keizai Shimbun has computed the Nikkei 225 index, a price-weighted stock market index of large Japanese firms since 7th September 1950 (Azarmi, 2002).

The first index futures contract was the S&P 500 index futures, which started trading at the Chicago Mercantile Exchange (CME) in 1982. It was only a matter of time before a Japanese index futures contract started trading.

CME was interested in this market, as was the Singapore International Monetary Exchange (SIMEX). SIMEX was established in 1984, as a part of Singapore's plan to become a centre for international finance. It offered an open outcry trading system for investors across the Asia Pacific and European regions and to interested parties in the US through the mutual offset system. The time difference between Singapore and Tokyo made it convenient for Japanese traders to trade on SIMEX. Three factors affected the evolution of this market:

1. Japan had wagering restrictions that hindered cash-settled index futures contracts. An effort was made to launch a physically settled contract which quickly failed. This legal hurdle needed to be resolved in order to enable index futures trading.
2. Nihon Keisai Shimbun Inc. had to choose how it would license the index.
3. Japanese regulators had to setup a regulatory regime for the product.

Nihon Keisai Shimbun chose to license the index to three exchanges: CME (May 1985), Simex and Osaka. CME and SIMEX had the option of linking their Nikkei 225 contracts. These exchanges were already linked through a mutual offset arrangement in a number of futures contracts offered at both markets, such as the Eurodollar futures. Positions taken in these contracts at CME could be transferred to or liquidated at SIMEX and vice versa.

With a fungible contract, the risk that one market would grow at the other's expense was low. However, the rewards of offering a successful Nikkei contract exclusively were high. SIMEX chose independently to offer a non-fungible Nikkei 225 futures contract in September 1986 – thus it decided to compete and not cooperate with CME on this product.

Osaka Securities Exchange started trading Nikkei 225 futures in 1988 followed by CME in 1990. From the onset, trading in Nikkei 225 futures at Osaka was very successful. Chicago has a 14 hour time difference with Tokyo. That ensured Japanese traders could not access CME during business hours in Japan. However despite the Osaka market, there was much Japanese interest in trading the Nikkei Futures in Chicago. At the time, some traders seemed to prefer the open outcry trading mechanism of CME to the computerised trading at Osaka.

Now three different exchanges were trading the same product. Since all three markets were, to a large degree, targeting the same clients, there was a chance that one or more of these markets would not attract enough clients and suffer a liquidity problem. During these initial years, trading at SIMEX was not very active.

In the late 1980's, Japanese regulators allowed banks and securities houses in Japan to do brokerage business in futures markets for their customers. The biggest benefits of this decision were realised by the Osaka market. The trading hours, the economy of the host country, and the access to the local market by both foreign and domestic traders were all important to the success of Nikkei futures on each exchange. Most of these factors were in favour of Chicago and Osaka.

Consequently, by the early 1990's, the Chicago and Osaka markets were thriving. SIMEX was not. Since the Chicago and Osaka markets did not trade simultaneously, there were no arbitrage opportunities between the Chicago and SIMEX markets or the Chicago and Osaka markets. However, for most of the trading day, the Osaka and SIMEX trading times overlapped. So a trader could arbitrage between these two markets.

It looked like Japan had successfully captured the Asian day and the Western night business for its Nikkei 225 futures contract. While the Western day business was done in Chicago, Singapore was pushed aside to doing only marginal side business. SIMEX tried hard to attract more business. It offered an award to the brokerage firm that did the most business through it.

In the summer of 1992, the Japanese regulators gave Singapore a big 'omiage' (gift). The Japanese regulators had misdiagnosed the difficulties that had led to the October 1987 stock market crash in the US and had decided that programme trading was to blame.

Osaka imposed stringent rules on the options and futures deals in that market. In order to stymie programme trading, Japanese regulators imposed restraints on index futures trading in the Osaka Futures Exchange. In addition, the price was allowed to move only within tight limits. Osaka let the Nikkei contract move to about 3.3% of current market levels while SIMEX permitted a 10% fluctuation. Because of this the Osaka market was often suspended for most of the day, especially when markets were volatile, leaving traders with no domestic benchmark against which to buy and sell. Traders had to keep high margins with the exchange. Margins were raised four times in 1991 and in 1992, after which margin stood at 30% of the value of the contract, of which 13% was a non-interest bearing cash deposit. In addition, dealers' commissions were required meet a minimum rate that the exchange had specified. This enabled SIMEX dealers to gain a competitive advantage by offering discount commission rates that could not be matched at Osaka.

Within a few weeks of implementing these rules, trading began to move from Osaka to SIMEX. Trading in SIMEX rose from 4,000 to over 20,000 contracts per day. The success with the Nikkei 225 futures put SIMEX and Singapore on the global map. This was bad for Japan's financial industry, which lost fees for brokerage, transactions, research, advisory, etc. However, it was good for users in Japan, who were not locked into using their inferior domestic market: they were able to use the offshore market even when policy makers disrupted the local market.

The Nikkei 225 futures now trade in Chicago, Osaka and Singapore. Japan's regulators have since removed many of their restrictions, but an important Nikkei 225 futures market remains in Singapore. This is partly because liquidity is hard to dislodge once it comes about. In addition, Japan appears to have problems with competition policy, and treatment of foreign firms, which translates to elevated transaction and brokerage fees.

Table: Nikkei 225 futures: an example of three levels of international competition on regulation and law

Aspect		Example: Nikkei 225 futures
I.	Banning of products and markets	Nikkei 225 futures were banned
II.	Rules limiting the success of permitted products and markets	Restrictions on participation, and high margins, in Nikkei 225 futures traded in Japan.
III.	Intangible issues	Trust in Japanese regulatory mechanisms as seen by outsiders.

This case study illustrates all three levels of competition in export of IFS. At first, in the period after 1982, even though it was obvious from the success of the S&P 500 futures in the US that there was a market for the Nikkei 225 futures in Japan, the Nikkei 225 futures could not be launched in Japan owing to legal difficulties with cash settlement. Japan then squandered a head start owing to poor policy analysis in the aftermath of October 1987, which led to restrictions against program trading, high margins and regulated brokerage fees. Finally, SIMEX and CME were more attractive for global order flow in terms of the intangible issues of trust.

competition among firms, and competition across different financial 'technologies'. Competition among firms is impeded by entry barriers in any kind of business. Competition across technologies is best illustrated by an example: Money market mutual funds and checking accounts are alternative technologies through which certain kinds of services can be obtained by customers. Sound competition policy requires that both these sub-industries compete with each other in the marketplace. Any regime that blocks the growth of checking accounts in order to favour mutual funds, or blocks the growth of money market mutual funds in order to favour bank deposits, limits competition and damages consumer interests.

The next question is that of a level playing field (E7). It is related to competition policy. It seeks identical regulatory treatment of all firms. A key feature of an IFC is the treatment of foreign firms. One indicator is the extent of protectionism embedded in the regulatory system (E8). This seeks to measure the treatment of foreign firms in a broad sense. It is like a level playing field question where a domestic firm is compared against a foreign firm.

A key indicator affecting the performance of the regulatory system is the problem of conflicts-of-interest. Financial regulators tasked with various functions in financial regulation need to have clear goals that do not conflict with each other (E9). For example, around the world, an increasing number of monetary authorities are tasked with achieving the single goal of price stability. Separate institutions undertake regulation and supervision of the financial system.

But, in India, in addition to the core goals of monetary policy, the central bank as a regulator has other subsidiary roles. These include: protecting banks, enabling the provision of subsidised credit in some sectors, running a bond exchange and a depository, and financing the public deficit at lower than real market cost. Can a central bank that: is not constitutionally independent of government, has multiple roles, and is asked to achieve multiple non-monetary goals, possibly avoid multiple conflicts-of-interest from arising on a day-to-day basis? Can it do so when the government that is its apex authority, is also the country's largest owner of banks, owns other financial firms and is its largest borrower?

In the globally competitive game of IFS, innovation is the main source of competitive advantage. The impact of the regulatory regime on financial innovation (E10) directly affects success in establishing an IFC. This issue is also related to the extent of regulatory intrusiveness and micro-management of markets and institutions (E11). It is inimical to succeeding in the global competition for IFS. The ideal framework is one that is principles-based, open, market-friendly and competition inducing (E12). IFCs with rules-based regulation, entry barriers, low competition and opposed to the open internationalisation of their financial systems would score poorly on E12.

Finally, the overall value of a regulatory regime for finance is the extent to which it is conducive to efficient/effective resource mobilisation and allocation (E13). As emphasised above, the choice of these thirteen indicators, and the numerical scores of each city, are necessarily subjective. Yet, these tables yield useful comparative insights. First, they permit an understanding of the strengths and weaknesses of established and emerging IFCs on these 13 dimensions. But equally important, for the present purpose, they put the spotlight on the weakest links that will inhibit Mumbai from emerging as an IFC when compared with its global competitors.

An examination of the values in these two tables is revealing. As far as the overall score for the quality and impact of financial system regulatory regime is concerned, Mumbai lags behind both established and emerging IFCs. London, with a score of 9, is the benchmark that every IFC seeks to emulate. New York and Singapore both score an overall 7 along with Sydney and Dubai. Hong Kong fares better at 8. Seoul and Labuan follow up with 6 and 4 respectively. Mumbai lags at 3. Regulation is clearly an area where much needs to be done if Mumbai's aspirations to become an IFC are to be realised.

Table 8.1: Comparing Mumbai against established IFCs on the quality and impact of the financial system regulatory regime

		London	New York	Tokyo	Singapore	Frankfurt	Mumbai
Quality and Impact of Financial System Regulatory Regime		9	7	6	7	5	3
E1:	Ensuring Systemic Stability	10	8	8	8	8	7
E2:	Protecting Integrity and Soundness of financial institutions	9	8	9	9	8	6
E3:	Capacity to Cope with Market and Institutional failures	10	8	8	8	7	7
E4:	Sound risk management at all levels: systemic, market, institutional	10	10	8	8	8	5
E5:	Effective consumer protection	8	7	7	8	9	5
E6:	Encouraging full and effective competition across firms/segments	10	6	5	7	5	2
E7:	Ensuring level playing field for all players in all market segments	9	7	5	7	6	2
E8:	Extent of Protectionism embedded in regulatory system	9	6	5	5	4	1
E9:	Avoidance of conflicts-of-interest	8	7	5	6	5	1
E10:	Impact on Financial Innovation	10	10	5	5	4	1
E11:	Intrusiveness and micro-management of markets/institutions	10	7	7	6	5	1
E12:	Principles-based, open, market-friendly and competition inducing	10	7	7	6	6	1
E13:	Conducive to efficient resource Mobilisation and allocation	8	7	6	7	6	2

Table 8.2: Comparing Mumbai against emerging IFCs on the quality and impact of the financial system regulatory regime

		Mumbai	Hong Kong	Labuan	Seoul	Sydney	DIFC
Quality and Impact of Financial System Regulatory Regime		3	8	4	6	7	7
E1:	Ensuring Systemic Stability	7	7	3	7	8	5
E2:	Protecting Integrity and Soundness of financial instituions	6	7	5	7	8	6
E3:	Capacity to Cope with Market and Institutional failures	7	9	3	7	8	6
E4:	Sound risk management at all levels: systemic, market, institutional	6	7	5	7	8	5
E5:	Effective consumer protection	5	6	4	7	8	5
E6:	Encouraging full and effective competition across firms/segments	2	8	5	7	8	9
E7:	Ensuring level playing field for all players in all market segments	2	8	4	5	6	8
E8:	Extent of Protectionism embedded in regulatory system	1	7	5	5	7	8
E9:	Avoidance of conflicts-of-interest	1	6	4	5	8	4
E10:	Impact on Financial Innovation	1	7	2	5	7	5
E11:	Intrusiveness and micro-management of markets/institutions	1	8	5	5	7	5
E12:	Principles-based, open, market-friendly and competition inducing	1	7	2	5	6	8
E13:	Conducive to efficient resource allocation	2	7	3	6	6	5

A closer look at the numerical scores shows that Mumbai has better scores – such as 5, 6 and 7 – for indicators E1 through E5. Mumbai appears to match Frankfurt on one indicator (coping with market and institutional failures) with a score of 7. Mumbai may have a slight edge over DIFC on these measures, though this partly reflects

the relative age of DIFC; there is little doubt that Dubai will strengthen these features as time passes and experience is gained with episodes of failure.

Where Mumbai fares badly is on indicators E6 through E11 concerning competition, level playing field, protectionism, conflicts of interest, innovation, regulatory intrusiveness, micro-management, and rules-based regulation. Mumbai has to make progress on E1 through E5, where it lags emerging IFCs by a small extent. But fundamental rethinking is required on factors E6 through E11 where both established and other *emerging* IFCs out-perform the Indian financial regime governance.

On balance, these constraints hamper the ability of the financial system to perform its core task: that of supporting efficient resource mobilisation and allocation (E13). Here Mumbai fares poorly when compared with both established and emerging IFCs. An interesting feature of indicators E6 to E11 is that these are the areas in which London appears to fare better than New York. A deeper understanding of the task facing the Indian authorities in making Mumbai is an IFC is illuminated by the international debate about the UK approach to financial regulation as opposed to the US approach. Concerns in the US that New York is falling behind London in these respects are reflected in recent speeches made by the US Treasury Secretary and by the Committee on Capital Market Regulation that has been set up to see what can be done.

4. The overall legal regime governing finance

Underlying the key, but specific, question of financial regulation are a broader set of issues concerning the extent to which an IFC jurisdiction adheres in principle to globally accepted standards for the 'rule-of-law' as well as how such notions are applied in practice. Specifically, where the provision of IFS is concerned, global financial firms and investors place considerable emphasis on: (a) respect for property rights; (b) enforcement of creditor and shareholder rights; (c) the efficiency, cost and 'fairness' of recourse to the legal system; and (d) the integrity and competence of the legal system as a whole and all its components for resolving civil conflicts and disputes and assuring the enforcement of contracts through recourse in real time.

IFS invariably involve multiple instruments (underlying contracts accompanied by a variety of risk management instruments) bundled under a single financial structure (such as a syndicated loan or a sovereign bond with features and conditions attached). IFS also involves complex financial structures such as those involved with privatisations involving the participation of global investors and lenders, or PPP arrangements involving municipal, state and central governments acting in concert with private contractors, domestic and foreign, but with distinct performance obligations (and penalties in the event of default or breach) for each. These complex contractual structures require commensurately sophisticated contract enforcement mechanisms.

An illustrative approach, using indicators and scores in the same way as above, is brought to bear on understanding the quality, efficiency, effectiveness and supportiveness of the legal system insofar as it affects finance in general and IFS in particular. The quality, efficiency and effectiveness of legal recourse for redressing non-performance under contracts, is a fundamental ingredient in the globally competitive provision of IFS. In attempting that task, eight indicators are relied upon. The first (F1) concerns the knowledge base ('know-how') that exists in a particular IFC; i.e. in terms of having law firms, specialist lawyers and judges who understand and are experienced in the intricacies of dealing with complex financial contracts.

Most established IFCs are characterised by the presence of *global* accounting, law and tax advisory firms employing professional staff at all levels who have worked in several IFCs over many years. These institutions are familiar with not just the laws and regulations of the IFC jurisdictions concerned but of other IFCs and the source countries of global investors.

Though it does not yet have an IFC in Mumbai, India's legal system is

widely perceived as adhering *in principle* to the rule of law, underpinned by a time-tested constitution and a durable, resilient legislative democracy that has been time-tested for six decades. At its apex, India is perceived as having a paradoxical combination of: (a) world-class knowledge, competence and sagacity about global finance, reposed in a few accomplished individuals with technocratic backgrounds and relevant practical experience; coupled with (b) a lack of similar knowledge, and ideological opposition, at other levels as to how the global economy and financial system function.

The legal system – in terms of its ability to understand and deal with issues of international finance – is perceived as capable at the apex level, but weaker at intermediate and lower levels. The legal system in India/Mumbai is perceived by practitioners abroad as adequate by international standards but not as knowledgeable about global finance simply because it has not had the opportunity to acquire such expertise. The absence of recognised global legal firms in India, with specific expertise and experience in dealing with IFS, provides some cause for concern. That deficit represents a serious institutional handicap if Mumbai is to become an IFC.

The second indicator (F2) concerns the *efficiency* of the IFC's legal system. It conveys a composite assessment of factors like: the legal requirements and processes involved in getting conflicts/disputes resolved through the legal system; interruptions and delays in the progress of cases through the system; the backlog of cases in the civil system; the quality of decisions and incidence of successive appeals; the overall time taken for dispute resolution; and the cost involved. The World Bank's 'Doing Business' database has come out with numerical measures for the number of days that it takes to settle disputes in various countries. This is related to indicator F2. On this indicator Mumbai would not fare well relative to other IFCs.

Most global investors seem aware that the concept of 'real time' appears to be elusive in Indian legal practice. That was substantiated by the late Nani Palkhiwala who said that: "Anyone who does not believe in eternal life has never litigated in an Indian courtroom". The Indian civil legal system in every city at every level seems beset by frequent interruptions and delays in the way cases proceed. There is a phenomenal backlog of cases (several million) in the pipeline. It can take up to two decades for civil cases to be resolved; often after the demise of the original litigants and their immediate descendants. Such absence of time-consciousness would be a significant deterrent to global investors from using an IFC in Mumbai. Under such circumstances, even if property or creditor rights are respected in principle, they cannot be applied or enforced in practice, simply because of the perception that as many Indian eminent jurists have repeated: "justice delayed is justice denied".

Distinct from the time taken to resolve contractual disputes through legal recourse, an indicator (F3) of some concern to global firms operating in IFCs, and to global investors, is the issue of probity and *effectiveness* of the legal systems in an IFC, especially when it comes to enforcing judgements, and applying the rule of law in practice, as opposed to adhering to it in principle. Again, on this measure, India (Mumbai) would fare poorly when compared with IFCs in OECD countries.[1]

The next indicator (F4) deals with issues of integrity and probity across the legal system. It is an illustrative measure that indicates the degree to which attributes such as fairness, impartiality, and credibility characterise the legal system in an IFC, along with the relative presence or absence of corruption. Global publicity attracted by perceived miscarriages can affect the image of a legal system adversely.

The fifth indicator (F5) focuses on the quality (in purely technical terms i.e. by way of professional competence) and the human and institutional capacity of the legal system

[1]No comparative scores have been provided for Mumbai in these two tables. The HPEC felt that as there was no IFC in Mumbai, the basis for comparison might be misleading and controversial if numerical scoring was attempted to convey a spurious sense of accuracy. However it also felt in qualitative terms that Mumbai was quite far behind other IFCs in these areas and much needed to be done to catch up with best global practices.

Table 8.3: Comparing IFCs on the quality, efficiency and effectiveness of the legal system

		London	New York	Tokyo	Singapore	Frankfurt
Quality, efficiency, effectiveness of legal system						
F1.	Know-how in dealing with complex Financial instruments/arrangements	8	9	6	6	5
F2.	Efficiency of legal system (i.e. time for dispute resolution)	7	8	7	9	6
F3.	Effectiveness of legal systems - enforcement and rule of law	7	8	7	8	6
F4.	Fairness, Credibility, lack of Corruption in civil legal system	7	7	9	10	8
F5.	Human and Institutional Capacity and Quality of the Legal System	7	8	7	8	7
F6.	Adherence to global benchmarks and standards of best practice	8	8	6	7	6
F7.	Use of national law in national, regional and global contracts	8	9	3	5	4
F8.	Overall Assessment of Legal System Functioning	8	9	6	8	6

insofar as its capability for dealing with, and supporting, IFS is concerned. While this indicator may involve a judgemental overlap with the first indicator of 'know-how' (F1) it is different in the sense that it attempts to capture dimensions that go beyond simply the 'know-how' aspect. F5 tries to capture a sense of the quality standards of legal training and expertise in dealing with issues that the provision of IFS raises, the degree of professionalism, quality of jurisprudence, depth and width of human capital, and the professional capabilities of legal firms and advocates in comparison with their global peers. Again a comparison across established and aspirant IFCs would reveal Mumbai as comparatively weak as far as the capacity of the extant legal system for supporting the provision of IFS by financial firms in Mumbai is concerned. But that weakness could be corrected quite swiftly if the will was exerted to accomplish that.

In a similar vein, the sixth indicator (F6) attempts to convey a sense of how well extant IFCs adhere to global benchmarks and standards of best practice in matters of law and legal support where the provision of IFS is concerned. The seventh indicator (F7) assesses the extent to which: (a) 'national law' prevailing in an IFC jurisdiction governs the provision of IFS in/from that jurisdiction or whether IFS contracts are governed by the use of foreign law (invariably UK or US) or international codes (UN, BIS, IMF or WB) when they are available; and (b) which foreign jurisdictions are chosen by most IFCs as centres for adjudication and settlement of disputes. Again, on these two indicators, Mumbai would fare poorly but then so do most other IFCs other than the three GFCs and those that use US and UK law for their IFS contracts as a matter of course. An attempt to make Mumbai an IFC will require a substantial improvement in the functioning of its legal system for this purpose.

Under the present circumstances it would be unrealistic to assume – if an IFC were to emerge in Mumbai – that Indian law covering IFS contracts, or Mumbai as a jurisdiction for adjudication concerning IFS, would be immediately acceptable to global participants. It is more likely that, as in most IFCs at present, UK or US law would be chosen to cover IFS contracts. Over time – with experience, expertise and credibility being gained, along with improvements in the operating and quality standards of the Indian legal system – it is more than likely that Indian law could gradually be applied to IFC operations in Mumbai and become acceptable globally.

Finally, the eighth (F8) indicator attempts to encapsulate information contained by all the previous seven indicators into a composite judgement. Unsurprisingly it reflects what has already been alluded to above.

The two tables on the ability of the extant legal system to support the provision of IFS reveal a discouraging picture because in our subjective judgement Mumbai lags in all aspects. The four tables comparing different IFCs on financial regulation and the legal system are particularly illuminating in terms of two comparisons: against Shanghai and DIFC. While Mumbai might be competitive with Shanghai in these aspects, that is not the case with DIFC, whose legal governance and regulation is de-linked from the UAE's legal and regulatory regime for financial services. It is purpose-built for DIFC alone. DIFC has a stated policy of hiring the best available practitioners from abroad to ensure that regulation and dispute settlement at DIFC are of the highest world class standards; i.e. similar to those prevailing in the three GFCs. That could give an edge to DIFC as a competitor to Mumbai (as an IFC) in attracting regional and global customers for IFS. DIFC has a head start over Mumbai in the process of complex institution building required for financial regulation and the legal system governing its IFC. It is willing to be flexible, adopt the best global practices, and has the resources as well as the political will to employ the best people available in the world, as regulators and for administering the special legal framework that has been established for governing the operations of DIFC.

The second interesting comparison is Hong Kong. Here, the traditional argument made in Indian circles is that the Chinese financial and legal systems lag far behind those of India. That is undoubtedly true as far as Mumbai competing with Shanghai as an IFC is concerned. But China has an enormous asset in the form of Hong Kong, a thriving well-established IFC that has been shaped by over a half-century of liberal law and regulation based on the UK model. Hong Kong scores better than Mumbai on financial regulation and its legal system. This affects India in two ways.

First, in the global competition for IFS production, China may have a stronger position than appears to be the case, if the institutional attributes of Hong Kong are taken into account. The caveat lies in whether China will rely more on Hong Kong than on Shanghai as its premier IFC.

Second, if resource allocation in China is influenced by the way in which Hong Kong's financial markets operate, that will certainly improve the quality of capital productivity. This facet of having Hong Kong contradicts the stereotype that Indian finance and law are far superior to Chinese finance and law as far as IFS provision is concerned. A considerable deployment of Chinese savings, and fundraising by Chinese firms, especially for the southern special economic zones and the economic region surrounding Guangdong, is being done in

Table 8.4: Comparing emerging IFCs on the quality, efficiency and effectiveness of the legal system

		Hong Kong	Labuan	Seoul	Sydney	DIFC
Quality, efficiency, effectiveness of legal system						
F1.	Know-how in dealing with complex Financial instruments/arrangements	8	4	5	7	6
F2.	Efficiency of legal system (i.e.time for dispute resolution)	8	5	6	7	10
F3.	Effectiveness of legal systems - enforcement and rule of law	7	5	6	8	5
F4.	Fairness, Credibility, lack of Corruption in civil legal system	7	5	6	9	5
F5.	Human and Institutional Capacity and Quality of the Legal System	6	5	6	8	5
F6.	Adherence to global benchmarks and standards of best practice	8	6	7	8	7
F7.	Use of national law in national, regional and global contracts	6	6	5	6	9
F8.	Overall Assessment of Legal System Functioning	7	5	6	8	6

Hong Kong which outperforms Mumbai by a considerable margin as a financial centre.

5. Summary of cross-country comparisons

In summary, it appears that the weakest links in an Indian effort to compete with other IFCs are issues of financial regulation (E6 to E11) and the overall weakness of its legal system. These are the areas on which this report places great emphasis as needing immediate strengthening if a viable IFC is to emerge in Mumbai.

What are the limitations of financial regime governance?

chapter 9

1. Where do we stand? An IFS – Market × Players matrix

Apart from comparing financial regime governance in India with other global markets as done in the previous chapter, an illuminating approach to understanding impediments to IFS production in India is to look forensically into what constitutes IFS provision. That requires opening the 'black box' to describe precisely what takes place when different financial firms provide various kinds of IFS. This is done through a classification of IFS into the various activities/markets discussed at some length in Chapter 2 of this report along with a classification of financial firms into ten broad categories as follows:

BANKS

- Commercial Banks
- Private (not in the Indian vernacular sense but in the Swiss)
- Investment Banks and Universal Banks

ASSET MANAGERS

- Mutual funds
- Insurance companies
- Pension funds
- Hedge funds

FINANCIAL EXCHANGES
COMMODITIES EXCHANGES
SECURITIES FIRMS

Combining the 19 activities with the 10 financial firm classifications, a 19 × 10 matrix has been constructed as a wallchart (see Appendix 3). The rows indicate various types of IFS and the columns represent various firms. For each kind of firm, in each IFS activity, the cells in the matrix describe what takes place at an IFC. Each cell lists specific activities and accompanying restrictions. This can serve as a useful visual aide for Indian policy-makers to focus on the constraints that hold back IFS production in India at present. The wallchart can be downloaded from the MIFC website.

There is an inchoate sense of discomfort in the Indian financial community that regulation, more than any other variable, prohibits many mainstream activities from being undertaken by Indian financial firms in IFS space.[1] The wallchart translates such vague discomfort into operationally understandable specifics. In other words, for each kind of IFS, for each kind of financial firm, the wallchart shows what each financial firm does (or could do) in connection with each kind of IFS at an IFC, and the state of the play in the Indian regulatory regime.

This report attempts to describe and document, as comprehensively as possible, what IFCs do in clear detail and illustrate how much needs to be done in specific terms for Mumbai to become a credible IFC. The wallchart conveys the present situation in Mumbai by colour coding: *green* to identify permitted activities; *blue* for restricted activities; and *red* for banned activities. For India to become a player in the global IFS space, the colouring in a large number of cells will need to turn from blue/red to green, as is the case with other IFCs.

The most remarkable feature of the wall chart is the extent to which it is coloured red. Most of the activities that global financial firms undertake at IFCs as a matter of course are prohibited in India. This is only *partly* due to capital controls. Careful examination shows that many activities in India are not banned because of convertibility

[1] Bhattacharya and Patel (2005) have an insightful discussion about the difficulties of regulatory institutions in India.

constraints. There are regulatory restrictions as well, probably reflecting caution and conservatism on the part of regulatory authorities. That, unfortunately, stifles financial competition and innovation.

The detailed wallchart, colour coded line by line, indicates prohibitions, permissions, and lack of restrictions with some specificity for each activity in each cell. It shows colour variations within cells of prescribed and proscribed activities. A condensed chart colours each cell – rather than each line – in red, blue or green. The colour white denotes 'not applicable'.

This simpler rendition, dominated by red, shows the imbalance between what is allowed and disallowed when it comes to providing IFS from India. It illustrates how significant are the restrictions: (a) bans on the provision of financial products and services that are quite commonplace worldwide; and (b) excessive compartmentalisation of financial sub-markets in India by prohibiting certain financial activities from being undertaken by different kinds of financial firms.

Restrictions on financial market operations, instruments and services have not been sufficiently debated either academically or by the authorities concerned. This lack of debate is counterproductive for the kind of India that is emerging, and for the kind of financial system that a new India needs.

In summary, the wallchart serves two purposes. First, it documents the kinds of activities that are typically performed at an IFC. Second, it shows where India stands in terms of regulatory barriers impeding or obstructing the types of IFS typically provided at an IFC. The wallchart thus provides a finer-grained sense of the impediments we face in competing in the global IFS market. It provides a useful checklist for the task facing policy-makers and regulators in reforming and aligning financial regulation and policy to aim at enabling an IFC to emerge in Mumbai.

1.1. A caveat about what the term "financial firm" implies in the matrix

The columns in the wall chart attempt to classify different kinds of financial firms into ten categories or compartments that are mutually exclusive. But it is important to emphasise that in an IFC these are not watertight compartments. An IFC does not specify that there should be only ten different types of financial firms in broad terms. Financial firms self-select the categories they place themselves in. Large complex financial institutions (LCFIs in Basel parlance) that operate on a global scale, like HSBC and Citigroup, may embrace all ten categories under one brand, under a holding company structure. But different and distinct intra-group corporations may undertake different activities like commercial banking, investment banking, securities brokerage, insurance, and asset management to conform to regulatory and market requirements.

Or, alternatively, a single firm – like Goldman Sachs – might undertake any or all of these activities; sometimes with multiple activities being undertaken by one firm, or through dedicated subsidiaries for each separate activity. It may choose different routes in different IFCs depending on their particular rules. Competitive pressure is continually applied by the market contestability of each of the ten categories. But the financial authorities in any jurisdiction play no role in constructing walls between different kinds of financial firms to prevent them from competing with each other in undertaking whatever combination of these activities they wish in any way they wish.

Contrarily, in India, a 'primary dealer' or a 'mutual fund' for example is seen as a self-contained firm that is highly circumscribed in the business it is licensed to do. A 'primary dealer' in India can be a primary dealer in government bonds, and has numerous regulatory restrictions on what other activities it can perform. By contrast, in a typical IFC setting, a primary dealership is merely one activity undertaken by sophisticated financial firms. These financial firms do a myriad other things – based on business strategy and not regulatory restrictions – apart from having a primary dealership.

Matrix of Regulatory Issues Influencing the Emergence of Mumbai as an International Financial Centre (IFC)

	Banks			*Asset Managers and Funds*				*Securities markets*		
	Commercial	Private	Investment	Mutual	Insurance	Pensions	Hedge	Fin. Exch.	Comm. Exch.	Brokers/SFs
	1	2	3	4	5	6	7	8	9	10
Fund Raising										
Equity										
Debt										
Composite										
Asset Management										
Discretionary (assets managed purely by the manager; client has no involvement other than broad views about risk exposure).										
Non-discretionary (assets managed with partial or full instructions from client).										
Personal Wealth Mgt.										
Global Tax Management										
Risk Management										
Financial Markets										
Currency Trading										
Equity Trading										
Bond Trading										
Derivatives Trading										
Commodities Trading										
Mergers & Acquisitions										
Leasing/Structured Finance										
Project Financing										
PPP Financing										
Insurance & Reinsurance										

2. A pragmatic view of key areas for progress

The wallchart helps to illuminate for policy-makers those key impediments that restrain IFS provision in Mumbai. Policy makers can focus on specific cells in the wallchart matrix with the aim of converting all the 'blue' and 'red' cells into 'green'. That can be done by alleviating the regulatory and legal constraints that prevent financial firms in Mumbai from providing IFS to their domestic clients and exporting them as well.

However, such an attempt on an item-by-item, rule-by-rule basis is unproductive. A more effective approach would be to look categorically (rather than individually) into the more fundamental sources of the detailed prohibitions on IFS and deal with them at their roots; instead of focusing on trimming single branches and leaves, the detail of which would divert attention from the core problems that afflict Indian finance. The case-by-case and rule-by-rule approach to problem identification and resolution is precisely what has prevented Indian finance from being transformed in the same way that the real economy was transformed in the mid-1990s; through blanket reductions in tariff and non-tariff barriers rather than product-by-product, rule-by-rule, and industry-by-industry.

A careful analysis of the wallchart, and the comparison with other IFCs, suggests three areas of policy that need to be focused upon in a fundamental way:

- ***Competition policy:*** Examine the entry barriers that hinder competition across financial firms and market segments and remove them.
- ***Segmentation of the financial services industry:*** Examine the inefficiencies that arise from subdividing financial activities artificially and unnecessarily – to make regulation easier or make certain activities fall within the purview of one regulator rather than another – into sub-industries with excessive constraints on interactions and competition.
- ***Financial Innovation:*** Examine the causes of an innovation-unfriendly environment that limits the ability of financial firms to create new IFS products/services and to export them.

All three issues are tightly related to each other and need to be seen in an integrated context. Segmentation adversely influences competition; poor competition adversely influences innovation. HPEC believes that these three issues constitute the essence in understanding the regulatory constraints that inhibit India's ability to engage in export-oriented IFS production.

3. Lessons from applying competition policy in the real economy

A generic issue that cuts across Indian finance, but remains as yet unresolved, concerns the use of competition as a tool to drive financial system development and innovation.

In a large, complex economy like India's – that is gradually but inexorably shifting away from an autarkic model of development to a more market-driven model, and globalising rapidly as a result – the most profound insight gained from post-1992 experience for modern policy-making is the importance of competition. There was a time not so long ago (until the late 1980s) when the centrality of competition in Indian economic policy was treated as unproven conjecture. However, in the last fifteen years, India has seen the impact of greater competition in the real economy with tradable goods and services. Competition is now understood as being the most powerful tool for encouraging firms to innovate, adopt new ideas, abandon counterproductive beliefs and traditions, cut costs, and increase exports.

That view was resisted powerfully by the *crème de la crème* of Indian industry during the early phases of trade and tariff reforms. The universal belief on the part of the country's public as well as its most prominent businessmen and intellectuals was that foreign goods were 'naturally' better. Goods produced domestically under sub-optimal conditions would always be worse. The Mumbai Club claimed in 1992–93 that, if exposed to global competition,

Indian manufacturing would die. But such resistance proved ill-founded as events unfolded. India proved to be more resilient, flexible, adaptable and competitive than commonly believed. Indian corporations proved to have better management teams which were able to cope with global realities. The same industrialists who opposed such reforms at the time at the time are now their most ardent advocates.

Indian firms are now growing from strength to strength, and becoming major MNCs in their own right competing around the world with companies from the US, EU, China, Japan, Korea and ASEAN.[2] Indian consumers have benefited from goods of much better quality being available immediately at much lower prices. Inflation in tradable goods has been kept down through import parity pricing.

Table 9.1 shows that Indian customs revenues dropped from 61.6% of imports in 1987–88, to 10.2% in 2005–06. Over this same period, Indian manufacturing exports rose from $12.1 billion to $86.3 billion. This data understates Indian export revenue growth since service exports are excluded.[3] The sharpest gains – a nearly three-fold growth of exports – were concentrated in the recent period, from 1999–2000 onwards, where the customs collection rate dropped from 22.5% to 10.2%. This suggests that the gains obtained when going from very high protection to high protection are smaller than the gains obtained in going from high protection to moderate or low protection. India's emergence as an export powerhouse selling goods and services into the global market began only after a **significant**, though as yet incomplete, reforms initiative.

Policy reforms undertaken from 1990 to 2000 ignited manufacturing exports growth by injecting three kinds of competition into the real sector: *i.e.*, lowering/removing:

1. Barriers to entry in the domestic market by new Indian firms
2. Barriers inhibiting entry by foreign firms into the Indian market
3. Barriers against the sale of foreign goods in the domestic market.

These developments directly influenced the ability of Indian firms to compete in selling overseas in the following three ways:

- ***Modified factor markets:*** The removal of entry barriers led to heightened competition resulting in the exit of weak firms, thus freeing up the labour and capital controlled by these firms. This influenced the price at which healthy firms could obtain labour and capital.
- ***Modified product markets:*** Ease of importing made imported raw materials cheaper. It ensured internationally competitive sourcing of local raw materials priced at import parity.
- ***Modified technology:*** The entry of foreign firms brought technical knowledge. That set the stage for export from India of goods and services of international quality. In a world where 35% of international trade is intra-firm trade within multinational corporations, the reduction of barriers to FDI into India was a key element that enabled exporting from India. Foreign firms induced competitive pressure on Indian firms. That generated incentives for Indian firms to acquire the knowledge (technology, design, quality and market research) needed to become globally competitive. Individuals who gained this knowledge working at foreign firms went on to work at Indian firms and carried knowledge with them. Export of software from India by IBM and Sun Microsystems is as much a part of the great Indian software story as export by Infosys and TCS.

Through these three channels, India came to understand the intimate linkages between the three pillars of competition policy, and the ability of firms located in India (whether local or foreign) to compete successfully in selling to global markets.

[2] For an early treatment of MNCs emerging from the third world, see Lall (1986).

[3] The measure of protectionism – customs tariffs divided by imports – is a poor one, since it masks areas where high tariffs generate zero imports. There can be situations where a reduction in protectionism is associated with a rise in this measure. For the purpose of this table, "manufacturing" exports are defined as merchandise exports while excluding agricultural and natural resource based exports.

Table 9.1: Customs duties and manufacturing exports

Year	Customs duties (% of Imports)	Manufacturing exports (Billion USD)
1987–88	61.6	12.1
1988–89	56.0	14.0
1989–90	51.0	16.6
1990–91	49.0	18.2
1991–92	46.5	13.8
1992–93	37.5	13.8
1993–94	30.3	17.3
1994–95	29.8	21.1
1995–96	29.2	24.6
1996–97	30.8	25.5
1997–98	26.1	27.4
1998–99	22.8	26.3
1999–00	22.5	30.2
2000–01	20.8	37.0
2001–02	16.4	36.8
2002–03	15.1	44.1
2003–04	13.5	54.0
2004–05	11.5	70.0
2005–06	10.2	86.3

With competition in any industry, Schumpeterian *creative destruction* steadily reshapes the landscape of firms. It ensures that labour and capital gravitate toward efficient firms. Weak firms die. Strong firms gain market share. The process of creative destruction is not neat or tidy. It involves social disruptions caused by fluctuations in market share, death of firms, and entry by new firms. However, there is a fundamental distinction between a tidy and apparently stable industry – that is usually inefficient by world standards – as opposed to a competitive and efficient one.

When public policy seeks to prevent untidy events such as firms being kept alive artificially, this gives rise to firms that are unviable in competitive markets, but still kept alive on artificial ventilation by the state. Three kinds of effects come into play when barriers to exit are erected. The first is moral hazard. Managers of such firms make decisions knowing that they might be protected in a future eventuality. The second is the competitive pressure exerted by such firms on the market. Healthy firms are unable to make profits and invest, when prices on the market are artificially driven down by artificially-subsidised firms. Finally, such firms distort factor markets. They make claims on labour and capital that they could not make in a truly competitive market economy. Thus they drive up prices paid by healthy firms for these inputs. When an intervention is made to protect a firm from bankruptcy, damage is imposed upon the economy through these three channels.

Table 9.2 below provides empirical evidence about the competitive dynamism achieved in less than 15 years by the major non-financial firms in India by comparing the biggest firms of 1991–92 against those in 2004–05. The metric of size used is value added. This overstates the relative importance of natural resource extraction firms: a firm like ONGC, which pumps crude oil out of the ground and sells it at import parity pricing, appears to generate a lot of value added.

The most interesting feature of this table is the new firms in the 2004–05 ranking: TCS (8), Infosys (9), Wipro (10), Rashtriya Ispat Nigam (12), Bharti Airtel (13), Satyam (19), Hindalco (23), and Nuclear Power Corporation (25).[4] **Eight out of the top 25 firms in 2004–05 were not on the list in 1991–92.** Many ranks have changed. The role of PSU firms has been diminished. Apart from HPCL (which gained a rank) and ONGC (which stayed on top), all PSUs experienced

[4] BSNL is a new firm in 2004–05, but it is the corporatised arm of DOT which was present and large in 1991–92 also.

Table 9.2: Changing ranks of Indian firms (non-finance) by value added (Rs. crore): 1991–92 versus 2004–05

1991–92			2004–05		
Rank	Firm	Value added	Rank	Firm	Value added
1	ONGC	3,944	1	ONGC	32,710
2	SAIL	2,781	2	BSNL	24,941
3	NTPC	2,059	3	Reliance	14,366
4	Indian Oil	2,011	4	SAIL	14,115
5	MSEB	1,605	5	Indian Oil	10,618
6	MTNL	1,136	6	NTPC	9,780
7	Tata Steel	1,107	7	Tata Steel	7,311
8	Air India	940	8	TCS	6,540
9	BHEL	874	9	Infosys	5,703
10	Reliance	705	10	Wipro	5,005
11	Tata Motors	700	11	GAIL	4,199
12	Shipping Corpn. Of India	660	12	Rashtriya Ispat Nigam	3,671
13	IPCL	594	13	Bharti Airtel	3,624
14	BPCL	522	14	I T C	3,571
15	Western Coalfields	495	15	MTNL	3,506
16	Indian Airlines	477	16	BHEL	3,433
17	L & T	466	17	Tata Motors	3,351
18	NALCO	463	18	HPCL	3,150
19	HPCL	457	19	Satyam	3,031
20	I T C	440	20	Air India	2,991
21	I T I	440	21	Western Coalfields	2,864
22	Neyveli Lignite	424	22	BPCL	2,841
23	A C C	411	23	Hindalco	2,792
24	Century Textiles	400	24	NALCO	2,717
25	GAIL	391	25	Nuclear Power Corpn.	2,661

Source: CMIE Prowess.

a decline in rank. The scale of creative destruction amongst Indian non-financial firms would show up more sharply if firms engaged in natural resource extraction were excluded and only manufacturing firms were compared.

The remarkable growth of Indian exports of goods and services in the 1990s is intimately related to improvements in competition policy. Most non-financial firms now have zero possibility of a government rescue. That removes moral hazard and focuses the minds of managers. Firms buy raw materials from competitive industries, at import parity prices. That ensures the cheapest-possible sourcing of raw materials. The steady decline in customs tariffs has brought input prices in India close to those found internationally. FDI and imports have led to a flow of new knowledge into the Indian economy. The ecosystem of the Indian real economy has been transformed by competition making the remarkable growth of Indian non-finance exports possible.

These lessons apply equally to Indian finance. Indian finance now needs to benefit from similar modifications in its factor markets, product markets and technology as were made in the Indian real economy. The analogy is obvious when it comes to: (a) Indian exports of IFS to the world market; and (b) productive restructuring of the Indian financial system through creative destruction induced by competition.

India has enormous potential as a cost-efficient, competitive producer of IFS. But there is a gap between the present capabilities of Indian *financial* firms and the requirements of the world IFS market. The same situation characterised Indian manufacturing industry prior to 1991.[5] It was overcome by the visionary

[5]There is much synergy between an export-oriented real economy and an export-oriented finance industry. The real economy consumes a large quantum of financial services. It would be more globally competitive if it was able to buy world-class financial services at lower than world prices. Conversely, financial firms require purchase of non-finance inputs such as computer hardware/software. The global competitiveness of Indian financial firms would be

policies of a succession of governments from 1992 onwards. Through creative destruction, Indian *financial* firms must reinvent themselves just as non-financial firms had to a decade earlier. They must do so in order to: (a) compete in the global market and (b) improve the quality/range of their services in the domestic market to the same level. Some may die in the process of doing so; and they should be permitted to. There is no room for inefficient Indian financial firms to exist any longer for any reason. The operating environment of the new India provides no room for tolerating that. Inefficient and uncompetitive financial firms, of any hue or ownership, do not just diminish themselves. They compromise the market and environment in which more efficient firms operate and compete for resources and customers. The market process takes care of such firms through friendly or hostile acquisitions, mergers, and takeovers or, at the extreme, through bankruptcy. That process must now be allowed to work in Indian finance. If it is not unleashed, India's ability to compete in the global IFS market will be seriously compromised and dependent entirely on foreign firms.

The key instrument for achieving the transformation of Indian financial firms – to provide world-class IFS at lower than world prices – is competition. The same forces that induced competition for non-financial firms will be just as effective for financial firms. To repeat, they are the removal of: (a) entry barriers to domestic firms and corporates; (b) barriers to the entry of foreign financial firms; and (c) restrictions against import of IFS. The creation of such a policy framework will generate incentives for financial firms operating in India to provide world quality financial services competitively.

In the Indian financial setting, domestic entry barriers relate to the license-permit controls governing entry into a given business area by existing or new local firms. Entry barriers against foreign firms include barriers to FDI, and rules that disfavour foreign participants; such as those preventing foreign banks from doing government business. The import of financial services is restricted largely, though not entirely, via capital controls.

There is widespread recognition that some segments of Indian finance has, as yet, failed to achieve the level of competition now visible in the real economy. The National Common Minimum Program (NCMP) of the UPA recognised this problem, and promised: *"Competition in the financial sector will be expanded"*. That has not happened as yet.

Table 9.3 compares the ten largest banks in the country in 2004–05 and in 1991–92. The largest banks in both columns are remarkably alike. The new names of 2004–05 are shown in boldface. Of these, ICICI was always a big bank. But it was not on the list for 1991–92 because it was not classified as a bank then but as a 'financial institution'. Apart from that, there are only two new names in 2004–05. When this table is compared against the previous table for non-financial firms it is immediately apparent that competitive dynamism in banking has lagged far behind industry and the country.[6]

There is an intimate link between the implementation of competition policy and the mechanics of exit. As argued above, sound competition policy requires that no agency be permitted to keep inefficient financial firms alive through: infusions of capital from the exchequer; distorted regulation aimed at supporting weak firms; entry barriers; or a combination of all three. *In extremis*, in India the principal owner of financial firms has on occasion pursued anti-competitive policies to help weak financial firms accumulate retained earnings, and recapitalise themselves in a non-transparent way at the expense of customers. These maladies are typical in developing countries where exit processes for financial firms are weak, competition is poor, and financial systems are anaemic.

boosted by being able to buy world-class inputs at world prices.

[6]For a treatment of the difficulties of domestic banking policy, see Hanson (2003); Mor and Chandrasekar (2005).

Table 9.3: Biggest 10 Indian banks: 1991–92 versus 2004–05 (Assets in Bln Rupees)

1991–92			2004–05		
Rank	Bank	Total assets	Rank	Bank	Total assets
1	State Bank of India	947	1	State Bank of India	4600
2	Bank of India	232	2	**ICICI Bank Ltd.**	1684
3	Bank of Baroda	213	3	Punjab National Bank	1264
4	Punjab National Bank	192	4	Canara Bank	1103
5	Canara Bank	164	5	Bank of India	950
6	Uco Bank	117	6	Bank of Baroda	946
7	Indian Bank	110	7	Union Bank of India	724
8	Indian Overseas Bank	93	8	**Central Bank of India**	688
9	Union Bank of India	87	9	Uco Bank	545
10	Syndicate Bank	84	10	**Oriental Bank of Commerce**	540

Source: Thomas (2006)

India now confronts entirely different global prospects and challenges. It may still be a poor developing country in terms of per capita averages. But it can no longer afford to think or act like one, when it is the world's fourth largest economy in real terms, and an emerging global power in geopolitical terms. It has reached an inflexion point of rapid growth through domestic consumption and export competition. That is likely to be maintained for some decades to come. There is no room for complacency, sanguinity or maintaining an unacceptable *status quo* in Indian finance. Policy mindsets, expectations and attitudes now need to change as dramatically in political, administrative, legal and regulatory circles as they have in the corporate world. The public sector needs to catch up with the private sector and the world.

India therefore needs to apply market competition policy as forcefully in finance as was done in the Indian real economy to create efficient firms capable of exporting IFS. Financial authorities need to remove the domestic entry barriers that presently exist. They need to encourage rapid entry by foreign firms, and remove barriers to the open import of financial products and services. That effectively means removing capital controls as quickly as possible and not on an ambiguous, opaque timescale that can be stretched with infinite elasticity. Correcting competition policy in finance requires abandoning a preference for a tidy, stable and complacent financial services industry still dominated by state-owned firms, many of which are uncompetitive and uninnovative. So are many small private financial firms; but those do not pervade or dominate the system.

In a tidy and stable scenario financial firms are not permitted to expire. The established players remain the same, with little incentive to compete or innovate. This needs to be replaced with a preference for a vibrant, efficient, competitive, world-beating financial services industry, where entry and exit is taking place ceaselessly through a process of Schumpeterian creative destruction. Financial sector policy should be judged for the pace of entry and exit.

4. Artificial segmentation of the financial services industry

At present, Indian finance is subdivided into sets of firms operating in tightly sealed sub-industry compartments. There are two sources of segmentation: (a) rules that prohibit emergence of LCFIs (*i.e.*, financial conglomerates), and (b) boundaries between the domains of multiple regulators. As an example of the rules that prohibit complex firms, consider a 'primary dealer'. In an international setting, the term 'primary dealer' pertains to one activity of a complex securities-oriented financial firm. However, in India, the term 'primary dealer' is interpreted to mean 'a specialised financial firm that performs only the task of primary dealership'. The regulatory framework governing a primary dealer in India prohibits the firm from doing many other highly related activities on the securities markets, such as equity index arbitrage or commodity futures market making.

As an example of the boundaries between the multiple regulators in finance, the separation between SEBI and the Forward Markets Commission (FMC) has induced a separation between financial exchanges and commodity futures exchanges. In an international setting, an exchange is a place where all manner of spot and derivative products are traded in a unified fashion. However, in India, the term 'commodity futures exchange' pertains to 'a specialised exchange that performs only the one task of trading derivatives based on commodity underlyings'. The regulatory framework prohibits ordinary exchanges from trading in commodity futures, and commodity futures exchanges from trading in non-commodity underlyings. From an IFS perspective, such segmentation damages India in three ways:

1. **It reduces competition**. The essence of competition is unpredictable entry. No software company could have anticipated the entry of Wipro, a maker of edible oil, into the software industry. However, this entry did take place. Wipro is now one of the biggest IT services firms in the country as a consequence.

   If Telco (now Tata Motors) had been prevented from producing cars, this would have been a tidy world of segmentation where truck companies made trucks and car companies made cars. But it would have been a world with inferior competition.

   In a financial setting, a policy framework that hinders mutual funds from competing with bank deposits through retail sale of money market mutual funds, or prevents NSE and BSE from trading commodity futures, reduces competition.

   As argued above, the most important ingredient of public policy to enable export of IFS from India is competition policy, comprising three elements – domestic entry barriers, barriers against foreign firms and barriers against imports. Segmentation is a key domestic entry barrier.

2. **It results in the loss of economies of scope and scale**. A great deal of IFS provision involves correlated products serving the same customers. When a firm engages in providing multiple correlated products, knowledge of one area spills over into another. Cross-selling to common customers takes place. Risk is reduced by participating in diverse areas. These economies are lost through segmentation. Much financial services provision involves increasing returns to scale. Corporate strategy overhead, core processing work using IT systems, brand building and advertising all involve increasing returns to scale.

   As an example, the 'glass house' with computer systems at an exchange can process ten times the number of trades at three times the cost. The same 'glass house' at a bank can handle both bank accounts and depository participant accounts. These economies of scale are lost through artificial segmentation.[7]

   For example, the Indian notion of a primary dealer is a firm that does low-risk trading strategies on the government bond market. However, these skills are easily redeployed into market making and arbitrage on currency derivatives, equity derivatives and commodity derivatives. It would be cost efficient for the Indian-style primary dealer to run a 25% larger organisation which does 200% more business, by harnessing economies of scope across these areas.

   In the commodity futures setting, India has taken the unique path of having separate sets of: commodity futures exchanges and financial exchanges. Member firms are also forced to be separate. Each financial firm is forced to create a separate subsidiary in order to trade on the commodity futures market. This subdivision induces inefficiency and holds back India's export competitiveness. It is analogous to a policy framework that forced Telco to have separate companies for making cars and making trucks.

3. **It leads to a corrosive political economy**

[7] For a treatment of economies of scale in the securities markets, see Shah and Thomas (2003). Claessens and Klingebiel (2001); Claessens (2002) offer a discussion of economies of scale and scope in developing country financial policy.

in which sub-industries engage in persuading governments to help to increase their profits leading to pressures operating to modify or interpret a particular rule in a particular way. Millimetric calibration of rules can influence the profitability of a primary dealer or the market share of banks in the depository participant business. As with Indian experience in the real economy, this induces a corrosive political economy. When any such agency has such powers over an industry, it is difficult for its functionaries to stay focused on the public goods of regulation while being blind to the competitive market process and the profits of alternative regulated firms.

Every large finance firm in India is forced to create multiple legal personalities for participating in separate regulatory ponds. At a *de facto* level, these are unified finance companies with all the complexities of conglomerate regulation. At the same time, forced separation into multiple firms induces higher costs, the loss of economies of scale and scope, and the consequent loss of export competitiveness.

There remains a 'legacy affinity' in India – left over from the pre-1992 era – toward maintaining the tidy arrangement of firms and sub-industries in a planned economy context. For many decades, the financial services industry was carved up into neat little pieces, each of which was tightly compartmentalised. Each piece was prohibited from competing with the other. The authorities viewed their role as that of tending to the interests of each sub-industry, in an attempt to be 'fair' to everyone. In such an environment, each segment had minimal competition. A firm with a license to operate in any segment had a safe sinecure, with sustained profits, and a low-to-zero probability of extinction through its own default. The authorities could claim that a stable financial sector had been built. But such an approach misses the essence of a market economy; which relies on the process of ceaseless, unpredictable and subversive competition. A functional market economy is the polar opposite of a planned economy circumscribed by a license-permit-control *raj*.

When a *vanaspati* firm is compelled to sell nothing but *vanaspati*, it makes the **software** industry less competitive.[8] The essence of market competition is based on open entry by unexpected firms that produce in an unexpected way thus inducing sharp changes in the profits and market shares of existing players. It is this continual churning that induces efficiency, innovation and technological change. In finance, that is what makes exporting IFS possible and profitable and enables one IFC to compete with another.

In providing IFS, the most globally competitive financial firms are engaged in all manner of activities. A firm like Goldman Sachs is involved in every element of IFS: it is therefore able to harness economies of scale and scope. In recent decades, the breakdown of rules that induced segmentation, such as the Glass-Steagall Act in the US, has unleashed extraordinary competitive energies. Global securities firms are now competing in areas that were once considered 'banking' and global banks are competing in areas that were once considered 'securities'.

5. Barriers to financial innovation

Global competitiveness in the world of IFS is dependent almost entirely on innovation and much less so on fractionally advantageous cost-efficiency. Indian firms can compete on entry in providing IFS on the basis of cost-efficiency. But that edge will disappear quickly unless they are able to innovate rapidly and continually. If they cannot do so, they will not be able to compete on a global scale over a sustained period of time.

What may happen then is innovative ability (located in US and UK financial

[8]This apparently paradoxical link between the *vanaspati* industry and the software industry alludes to Wipro – one of the top 3 software companies in India. Wipro previously produced *vanaspati*, a hydrogenated cooking oil. If the Indian State had barred firms that produced *vanaspati* from competing in the software industry, and thus blocked production of software by Wipro, it would have hurt competition and India's success in the software industry.

Box 9.1: *Case Study – The Clearing Corporation of India Ltd (CCIL)*

India embarked on an important innovation, by world standards, when the idea of *novation* at the clearing corporation was applied to trades on the OTC market. Traditionally, there was a divide around the world between exchange ecosystems – that had transparent trading coupled with risk management at the clearing corporation – as opposed to the OTC market. which had neither.

In India, it was felt that even if the problems of transparency in trading could not be addressed, it was possible to make progress by introducing risk management at the clearing corporation. The clearing corporation would interpose itself into transactions, becoming the legal counterparty to both sides of the trade, and thus eliminate counterparty credit risk.

As argued above, a key feature of a sound financial sector is having a framework supportive of exit by firms. A clearing corporation is the institutional mechanism through which the externalities of firm failure are controlled. Even if a firm fails, counterparties on the OTC market are not affected by that failure because the clearing corporation is the counterparty. The introduction of a clearing corporation into the system makes it possible to lower entry barriers, by bringing in firms into the OTC market that have weak credit. It also makes it possible to have financial sector policy framework where more firm failure and exit of weak firms takes place in a smooth manner.

These ideas led to the creation of the Clearing Corporation of India Ltd. (CCIL). CCIL has undoubtedly been a valuable institution which has given a more modern, more stable financial system. However, the policy framework in which CCIL has operated has flaws on competition policy at two levels:

1. Competitive conditions on the bond market and currency market

The raison d'etre of a clearing corporation is to lower entry barriers. Once the clearing corporation handles firm failure, there are no difficulties in opening up entry to a large number of firms that might otherwise be considered weak credits. However, even though CCIL was created, bond market participation and currency market participation has remained restricted to the small club of financial firms that existed before CCIL. The key economic benefit of building a clearing corporation – lowered entry barriers – has not been obtained.

2. Competitive conditions for critical securities industry infrastructure

CCIL has monopoly status in performing clearing services for fixed income and currency markets. It is the only clearing corporation with access to clearing in central bank funds and connectivity into RBI settlement systems. The other clearing corporation in India – the National Securities Clearing Corporation Ltd (NSSCL) – is prohibited from performing these functions. This reflects the segmentation of the Indian securities industry into three parts, regulated by RBI, FMC and SEBI. Such segmentation, and the consequent loss of competition, is suboptimal. Particularly when dealing with the OTC market, it is easy to have competition between the two clearing corporation.

In a competitive policy framework, every player on the OTC market for currencies or fixed income would be free to choose between multiple clearing corporations based on price and services. Using cross-margining arrangements between clearing corporations, it would be possible to obtain seamless functioning when the two counterparties to a trade are customers of two different clearing corporations. Such a competitive framework would drive both NSCCL and CCIL to higher levels of cost efficiency, quality of service and customer responsiveness, which would improve India's ability to export financial services.

The CCIL case is thus an ironic blend of intellectual success and opportunity lost. On one hand, India's ability to conceive of an institution like CCIL, and swiftly translate the broad idea into a smoothly functioning institution, has been the envy of the world. But at the same time, the larger policy problems of segmentation and faulty competition policy have induced a lost opportunity, whereby India has benefited less from the creation of CCIL than could have been the case.

firms) may seek marriages with cost-efficiency (located in Indian firms) through acquisitions and mergers on terms more advantageous to the innovators. Conversely, if an innovation-friendly environment is setup, then Indian financial firms (that are more than intellectually capable of innovation) are likely to flourish. They will turn into financial MNCs in their own right and may even turn into predators (rather than be predated upon) and generate substantial export-revenues.

Innovation in finance is the creation of new products, new trading mechanisms, new contracting arrangements, and new kinds of finance companies. Innovation in Indian finance can be classified into two classes of 'newness':

- ***Catching up with the world:*** As an example, cash-settled currency futures are a familiar and well-proven idea on a global scale. They do not exist in India. The launch of currency futures trading in India would constitute an innovation for India but not for the world.
- ***New world-class innovation:*** One of the hallmarks of a first-class financial system is its ability to steadily create innovative new financial contracts and instruments to satisfy different risk appetites and needs. New institutions and methods of transacting are continually generated by a dynamic financial system. The best Indian example is the deployment of an idea from financial exchanges – the clearing corporation – into the OTC markets for currencies and fixed income, in the form of the Clearing Corporation of India (CCIL). This was a genuinely new idea by world standards, and translated into a successful implementation in India.

5.1. The economics of financial innovation

Indian finance currently exhibits a very low rate of innovation when compared with the world. To explain this anomaly, superficial

explanations are often invoked. It is claimed for example that because Indians naturally defer to authority, or to elders, they are 'culturally' unable to innovate. However, as experience in industry and software services has shown, Indian firms and individuals can excel at innovation when faced with difficult global competition. What they have lacked is the incentive to do so. Hence, understanding the problems of innovation in Indian finance requires understanding the economic incentives that shape innovation, rather than invoking irrelevant superficial explanations.

Innovations usually trigger regulatory and policy concerns (Rajan and Shah, 2005):

- ***Who is the target?*** Is the target sophisticated enough to understand a new financial instrument and benefit from it? Should the new instrument be restricted only to a smaller set of sophisticated buyers?
- ***What risks does it pose to the system?*** Does the instrument/institution create uncontrollable or unmeasurable risks? Who will regulate its use (if that needs to be done)? How will the costs of regulation be paid for?
- ***What are the tax implications?*** How will the instrument be taxed? Is it an instrument merely to evade taxes?
- ***What new legislation does it entail?*** Is the act covering financial instruments broad enough to allow for the instrument? If not, does new legislation have to be brought in? How can it be framed broadly enough to allow the maximum contractual freedom?

Policy makers and regulators governing the financial regime inevitably and understandably take time to consider and resolve these issues. Firms proposing a new instrument or product have to invest considerable resources in awareness building, research, and persuasion to achieve the required policy and/or rule-changes. A firm embarking upon innovation must weigh the costs and benefits from investing in new developmental work. In a Schumpeterian world, the innovating firm secures a temporary monopoly owing to a first-mover advantage that provides the return on investment in innovation. If the policy environment places high costs upon the innovator, and slows it down to a point where first-mover advantage is lost to competitors, then firms lose the incentive to innovate.

The public advocacy and policy work required to get innovations across induces focused costs on one or a few innovators. The benefits then become public, because all firms – whether pioneers or not – derive benefits from the policy and rule changes. Under this environment, a single private firm does not have the incentive to persevere and push proposals through hurdles in its way. It requires a special public policy effort to create an innovation-friendly environment and for government to push through contractual and institutional innovations.

The process in the case of many recent attempts at financial innovation in India appears to be too convoluted and time-consuming. This is illustrated by a series of examples.

Example: stock index futures. Box 9.2 shows a chronology of how trading in the simplest possible equity derivative, cash-settled index futures, came about in India. This process took from 14th December 1995 to 9th June 2000, a delay of 4.5 years. A further three years lapsed in dealing with first order difficulties of regulation and taxation. In this case, the innovator (NSE) could have had a five-year head start. Instead, trading on BSE actually started a few days before NSE and trading on SGX started a few days later. NSE captured no temporary advantage by invested in innovation.

Box 9.2: *Case study – Stock index futures*

Table: Chronology of stock index futures

14 Dec. 1995	NSE asked SEBI for permission to trade index futures.
18 Nov. 1996	SEBI setup L. C. Gupta Committee to draft a policy framework for index futures.
11 May 1998	L. C. Gupta Committee submitted report (Gupta, 1998).
24 May 2000	SIMEX chose Nifty for trading futures and options on an Indian index.
25 May 2000	SEBI permitted NSE and BSE to trade index futures.
09 June 2000	Trading of BSE Sensex futures commenced at BSE.
12 June 2000	Trading of Nifty futures commenced at NSE.
25 Sep. 2000	Nifty futures trading commenced at SGX.

Box 9.3: *Case Study – Collateralised Debt Obligations (CDO)*

The difficulties and delays faced in financial innovation are also illustrated by the first securitisation of corporate debt; a process worth describing in some detail. As of 1997 or so, there were four impediments which made it difficult to undertake transactions involving securitisation of corporate debt:

- When an asset-backed loan is sold, the existing laws erroneously require a stamp duty to be charged on the 'transfer' of collateral from one lender to the next.
- In a securitisation transaction, it is difficult to handle the withholding of tax, since it is not possible to decompose tax deduction at source (TDS) certificates amongst multiple investors.
- The special purpose vehicle (SPV) that would be the centrepiece of securitisation is not immune to income tax.
- The SPV needs to be made bankruptcy – remote from the sponsor, in two senses. If the sponsor goes bankrupt, then the creditors of the sponsor should not have a claim on the assets of the SPV. Conversely, financial profits or losses to the SPV should not impact on the sponsor.

In 1998 or so, it was understood that the mutual fund was the only structure in India that met all but the first requirement. Elsewhere in the world, trusts are used for the purpose, but Indian law does not support this.

- In 1999, an RBI committee endorsed the use of mutual funds as the vehicle for undertaking these securitisation transactions.
- In 2000, the 'Rajasthan route' was designed, because local laws in Rajasthan do not require charging stamp duty on the transfer of collateral when an asset-backed loan is sold. Using this bypass loans are now converted into 'pass through certificates' (PTCs) which can be traded.
- In October 2000, a private bank attempted one securitisation transaction using the mutual fund vehicle and the Rajasthan route. Investors did not buy this product.
- In March 2002, this bank attempted an improved design for a product that securitised roughly Rs. 500 crores of a bond portfolio and broke it up into a three-tier seniority structure.

The launch of this product faced four impediments:

- RBI regulations did not respect the bankruptcy – remoteness of the mutual fund. This would force banks to view these securities as credit risk of the private bank. That distorted their pricing and acceptance.
- IFC intended to purchase the middle tier of the three-tier seniority structure. RBI intended to forward this foreign investment application to the FIPB for approval.
- The existing SEBI regulations limited mutual funds from investing more than 5% of their corpus in other mutual funds. This impeded purchases by mutual funds in this securitisation transaction (which was packaged as a mutual fund scheme).
- NSE's rules did not see PTCs as securities, and impeded listing of PTCs.

Example: Collateralised debt obligations (CDOs). Box 9.3 shows a case study of Collateralised Debt Obligations (CDOs). Unlike the case with SEBI and exchange-traded derivatives, where there was just one problem (obtaining approval for trading index futures) this example illustrates the difficulties of creating complex financial products that have to deal with: (a) an outdated legal/tax environment and the need for creative solutions to tax/legal impediments; and (b) multiple regulators to come up with regulations adapted to bringing new products to the market.

On an international scale, the CDO is a perfectly mainstream and ordinary

Box 9.4: *Case study – Exchange-Traded Fund (ETF) for Gold*

An important new class of 'mutual fund' instruments that has emerged globally is the Exchange Traded Fund (ETF). The ETF is like a traded depository receipt. The fund holds a pre-defined portfolio. Units issued by the fund are traded on the secondary market. For example, an ETF implementation of an index fund consists of the fund holding the market index portfolio, and issuing depository receipts on the underlying portfolio, which are traded on the secondary market.

ETFs may appear to be like closed-end funds, but they differ in two respects: (a) Closed-end funds are not depository receipts; investors cannot present their units to the fund and exchange them for the underlying assets, and (b) Closed-end funds retain discretionary power of portfolio management, while ETFs pre-specify what the underlying asset portfolio will be.

An ETF on gold is a natural and small innovation on top of the basic idea of the ETF. Under this structure, the mutual fund would purchase the gold linked paper issued by banks under the Gold Deposit Scheme, 1999, or to 'dematerialised' gold warehouse receipts. The mutual fund would issue depository receipts (units) equivalent to 1 gram of gold that would be traded on the secondary market. This would allow transparent trading of gold, in a unit size that is amenable to retail participation. These units could be a convenient avenue for investment in gold by individuals, instead of dealing with physical gold.

In India, Benchmark Mutual Fund proposed a Gold ETF in May 2002. It would have been the world's first Gold ETF, and a rare instance where financial innovation emanated from India. For gold ETFs to come about, mutual funds need to be permitted to invest in paper issued by banks under the Gold Deposit Scheme, 1999. Their approvals process involves both SEBI and RBI, and is as yet underway despite one budget announcement about this issue. In the interim, Gold ETFs were launched at NYSE and the Australian Stock Exchange, and have been modestly successful.

The delay in this approval process has turned India from being an innovator to becoming a follower. In this case, the innovator (Benchmark) lost all the resources invested in innovation. When the problems are resolved, it is likely that two or three mutual funds will launch gold ETFs on roughly the same date as the launch date of Benchmark.

Box 9.5: *The introduction of interest rate futures in the US – a case study in innovation*

In 1975, the Chicago Mercantile Exchange (CME) obtained permissions to do the first trading of interest rate futures in the world. The then CEO of CME, Leo Melamed, tells this story on page 235 of this book *Escape to the Futures.* The following text is a verbatim extract from this book. Mark Powers, mentioned in the story, was Chief Economist of CME at the time.

Unlike our listing of currency futures four years earlier, which required no federal approval, this time around, new contracts required approval by our newly established federal regulator, the CFTC. That approval wouldn't come about without some fancy footwork on our part.

It was deja vu. First, I recruited Beryl Sprinkel, now an IMM director, to set up a meeting with his former professor Arthur Burns, chairman of the Federal Reserve. That was pivotal to the approval. The meeting that followed in the boardroom of the Fed, which also included Mark Powers, is forever ingrained in my memory and could make an interesting and funny story. Both Burns and Sprinkel were heavy pipe smokers and I, of course, was still a chain smoker. Between the three of us, the smoke was so thick we could hardly see each other.

"What a clever idea," said the chairman of the Fed after we explained what we had in mind. "Such a futures contract would be used by government securities dealers, investment bankers, all sorts of commercial interests as well as speculators, isn't that right?"

"Yes," Sprinkel and I agreed. "Its participants would include every segment of the commercial and speculative world." We talked further about the value of this contract, until the Fed chairman fell into his thoughts. Suddenly, he had a bright idea.

"In such case," Dr. Burns said, "this futures contract would become a terrific predictor of the direction of interest rates, isn't that right, Beryl?"

Beryl Sprinkel hesitated and looked to me for guidance. I didn't know the answer, so I looked up at the ceiling and watched the billows of smoke that had gathered there. Mark Powers too remained silent. After an embarassing pause, Beryl thought of a noncommital response, "Well, Mr. Chairman, it will probably be as good as the Federal Reserve's own econometric model."

"That," said the chairman of the Fed with a laugh, "isn't worth a shit." It was a refreshing bit of honesty.

That meeting with Dr. Burns evolved into a friendship after I discovered that he and his wife were Yiddishistin like my parents. At their request, I found for them the works of I. L. Peretz in Yiddish which Dr. Burns took with him when he became U.S. Ambassador to Germany. Having survived this hurdle, I next sought and gained the support of Alan Greenspan, who at the time was chairman of the Council of Economic Advisors (CEA). The meeting with him was a shot in the arm. Before I could fully explain our plans for a futures contract in T-Bills, Greenspan interrupted.

"What a great idea," said Greenspan, who was destined to become one of this nation's most admired Federal Reserve Board chiefs. He then proceeded to rattle off a dozen uses for such a market, some of which we hadn't even considered. In short, this meeting made him a friend, which he has remained throughout the years. Our friendship was of particular importance at the time of the 1987 stock market crash.

As I was leaving his office, I got a bonus by bumping into Herbert Stein, Greenspan's predecessor at the CEA. Like any good evangelist, I immediately expounded on why we were there and asked his opinion. Without hesitation Stein quipped, "I don't oppose anything between two consenting adults".

I next turned to the CFTC. Commissioner Gary Seevers quickly understood the potential value of these new interest rate products and became a valuable ally. But now it was up to Bill Bagley, the CFTC chairman. I tried to impress Bagley with the fact that many federal officials were already aboard. But Bagley did not have any financial background and was afraid to take the responsibility for such a revolutionary decision.

"Leo," he implored, "I love you like my brother and want to do it, but I need someone higher up to give me an okay."

"How high up?" I inquired, thinking maybe he was looking for divine intervention.

"Well," Bagley responded, "aren't T-bills the property of the U.S. Treasury? Maybe we need approval, in writing, from someone like the Secretary of Treasury, William Simon." (Note: The US Secretary of Treasury is equivalent to the Indian Minster of Finance).

A tall order. Simon was a fairly new name in Washington D.C. And E. B. Harris' connections provided me with no go-between. To go without proper protection seemed wrong. So I began to call around to some of the senior officials of our clearing members to see if anyone knew Bill Simon. Sure enough, I hit paydirt. Sanford Weil, the chief of Shearson & Co., was a friend of the Secretary of Treasury. Weil was also a shrewd market analyst and sensed the great potential of our T-bill contract. He agreed to help. I then took one additional precaution. I called on Milton Friedman and asked him to again weave his magic. Friedman obliged by calling Simon and, by the time Sandy Weil and I appeared before him at the Treasury in the winter of 1975, it was a done deal. He quickly agreed and signed the prepared approval letter to Bagley.

product. But in this case, the innovator (a private bank) wasted resources invested in innovation, because, in the end, the CDO failed to overcome regulatory constraints. The lack of the CDO remains a critical weak link in the modernisation of the Indian credit market.

Example: Gold ETF – an Indian innovation that might have been. The Gold ETF case, described in Box 9.4, is particularly interesting from the viewpoint of examining the phenomenal bottlenecks faced by financial innovation in India. For this reason, a detailed chronology of events is offered in Appendix 3. As of the date of this Report (January 2006), the Gold ETF had not yet been launched in India. In parallel, important international developments have taken place. BAMC talked with World Gold Council (WGC) in June 2002, who agreed to market the Gold ETF for BAMC. WGC waited for the Indian product launch till the end of 2003. In 2004, WGC initiated a process which resulted in the Gold ETF being launched in Sydney at the end of 2004. WGC then took the new idea to London and NYSE in 2005. The NYSE Gold ETF now has $5 billion in assets, thus making it a successful product.

On 27th September 2006, the London Stock Exchange launched a new market segment for 'exchange traded commodities' that would trade ETFs on 19 commodities including cattle, coffee, corn, lean pigs, sugar, wheat and baskets of commodities such as livestock and energy. If India had created a more innovation-friendly environment, then by end-2002, India could have been a world leader with ETFs on commodities. Instead, events in India resulted in this idea taking root in New York, London and Sydney, while India is content to lag behind.

For an international comparison, Box 9.5 recounts the story of the first introduction of interest derivatives *in the world*. It shows a remarkable intellectual capacity in the US government and in the industry to understand innovation and to allow progress to take place.

5.2. An innovation-unfriendly environment

These experiences highlight the hostile environment faced by innovation in Indian finance. If continued, such an environment would compromise the prospects of Mumbai ever emerging as a competitive and viable IFC. The present financial regime governance hinders innovation. It sends out strong incentives to individuals and firms to avoid business plans that involve innovation. It biases the labour market to favour staff focused on routine operations as opposed to developmental and innovative work. Contrast this with the environment in which interest rate futures were developed in the US as illustrated in Box 9.5.

Why does financial regime governance have these limitations?

chapter 10

1. Why is the pace of financial innovation slow?

The design of a reforms process aimed at improving financial regime governance needs to flow from a diagnosis of the sources of difficulties. There are a number of obvious operational reasons as well as proximate reasons and deeper sources of dysfunction.

1.1. Regulators are preoccupied with averting scams

In an ideal world, regulators evaluating their impact on financial system development need to weigh in a balanced fashion three important factors: (a) encouraging progressive improvement in the capability of the domestic financial system; (b) improvements in its global competitiveness; and (c) the risk of financial regime reputation loss in the event of firm/market failure or default. However, the incentive structure faced by regulators in India attaches low priority to improving the quality of domestic resource allocation by financial markets, or on achieving greater international competitiveness. Indian regulation appears disproportionately focused on averting financial scams. This generates a regulatory bias of blocking innovation in order to be safe, and an industry bias of avoiding untested ideas since they expose firms to indirect risk when the next failure occurs.

A more nuanced but realistic regulatory perspective might be to recognise that accidents will happen even with the best regulation. But they will be fewer and less fatal. The only way to avoid accidents altogether is to choke traffic with too many roadblocks, or stop it from flowing altogether. Air-crashes occur; but that does not imply airlines should be regulated out of flying or, because road crashes occur, that no traffic should be allowed to flow. In India financial regulation has put so many roadblocks in place that financial innovation can only occur at a snail's pace. Worse, the road to financial innovation in the 21st century cannot be travelled at any speed by regulation that results in India's financial firms remaining the equivalents of antediluvian Ambassadors and Fiats in India's financial services industry when the rest of the world is using BMWs and Ferraris. Every year, the gap between Mumbai and London is growing, not narrowing.

A more appropriate regulatory view might be to accept that even the best-regulated financial system will have some small problems (of less than say Rs. 500 crores or Rs. 5 billion). That is one basis point compared to total financial assets of over Rs. 50 lakh crores (Rs. 50 trillion). The *efficient* safety level is not 100%. Each percentage of point of safety beyond 97% has a disproportionately higher cost; one that increases in logarithmic rather than linear fashion – and one that is not worth expending.

In that context it should be noted that the evidence accumulated over the last decade in the UK (when compared to the US) suggests that ***principles-based regulation*** might be more effective than rules-based regulation, in averting damaging financial malfeasance. **That is because it requires financial firms to conform not just with the letter of the law (rules/regulations) but with its spirit as well**. It co-opts the financial firm into becoming an integral player, along with the regulator, in a cascading and co-operative (rather than adversarial) process of self-regulation at the

level of the individual, firm and market. Principles-based regulation avoids the risk of turning financial firms (as well as their lawyers, accountants and tax advisors) into guerilla game-players that ceaselessly focus on beating or side-stepping the rules in order to gain a competitive edge in the financial marketplace.

A rational cost-benefit analysis in the form of regular 'regulatory impact assessments or RIAs' (standard practice in most OECD countries) therefore needs to be undertaken to compare the cost of inefficient resource allocation (*e.g.*, through financial preemption) against the cost of tolerating the occasional small scandal by loosening regulation to permit more financial flexibility and innovation. Such an analysis might suggest that: achieving allocation efficiency through better functioning of the financial system with an investment ratio of 30% of GDP (*i.e.*, Rs. 10 trillion) per year, and the avoidance of financial preemption, might be important enough to pay for a scandal costing around 0.1% of GDP (roughly Rs. 33 billion) once every few years.

1.2. A *de facto* shift towards over-prescriptive regulation in India

Given its legal heritage, India started out with a more open basis of law based not on exclusive reference to a codified constitution, but on equal respect for the evolution of precedent based on trial-and-error. But over time it has moved relentlessly toward a style of regulation under which every minute detail is either written into the basic legislation or into detailed subordinated rules and regulations. Under such a system if something is not specified, it is proscribed; or conversely, if something is proscribed then non-proscribed activities remain contentious as to whether they are permissible or not.

For example, a SEBI Committee on Gold ETFs did the kind of preparatory groundwork that a financial firm, and not a regulator, should do – *i.e.*, it designed an alternative product structure. In the prevailing financial governance regime, every detail of financial product and market mechanism is written down in meticulous detail either in the law or in subordinated legislation. The consequence of this approach is that every financial innovation requires interminable changes to be made to either governing laws, subordinated regulations or both. This raises the cost of innovation considerably. It deters financial firms from innovating because the returns from investment in innovation are rendered uncertain.

By contrast in the UK the approach to regulation permits financial innovations to be tried and tested almost instantaneously by financial firms in markets with large sophisticated customers at their own risk and with full customer awareness. If the innovation works, the regulators step in to see how the risk involved (to customers, firms and markets) can be diminished and managed better until the product becomes accepted as standard. This more innovation-friendly approach perhaps explains why London is so successful as an IFC while financial frauds of Enron, Worldcom, Tyco and Arthur Andersen dimensions continue to occur in the US despite the best rules-based regulation in the world.

1.3. Regulatory architecture

A major source of delay is fragmentation among regulators and uncertainty about which one will regulate new instruments and markets. Modest innovations like the Gold ETF, interest rate futures or currency futures – which would not be called innovations outside the country given their extreme degree of obviousness – run afoul of inconsistencies and turf battles across the multiple regulatory agencies. The problem is particularly acute with organised financial market trading, regulatory responsibilities for which are spread between three regulators: commodity derivatives are regulated by the Forward Markets Commission (FMC); equity spot and derivatives and corporate bonds are regulated by SEBI; government bonds and currency trading are regulated by RBI.

1.4. Lack of competition

The: (a) lack of sufficient competition in the financial services industry: (b) pervasiveness

of public ownership; and (c) over-compartmentalisation of sub-sectors; result in easy profits being made through sub-optimal performance by existing players. Clearly the situation has improved since 1992. But much remains to be done to introduce greater competition in Indian finance; especially in banking services.

That competition needs to be across larger, more capable players rather than among a plethora of small weak, under-capitalised players that cannot capture economies of scale or make the kinds of investments in people, training, technology and research into product development that supports innovation. The Indian financial sector needs a wave of consolidation – through acquisitions and mergers, among private and publicly owned institutions – for its financial firms to be strong enough to compete as aggressively with each other, and with foreign firms, in Indian and global markets as they should. A license to operate in a certain area of Indian finance is, all too often, a safe sinecure with stable profits and a near-zero probability of death. There is therefore little incentive to innovate to remain competitive. This is not unlike firms in the real economy before 1992.

For a shift into a high-innovation regime, both carrot and stick are required. The stick would be the introduction of competition: entry barriers in domestic finance and protectionism need to be removed. The carrot would be the significantly reduced cost of innovation that would result from a different regulatory attitude and approach. In addition, a shift from a domestic-focused financial sector to an IFS-focused financial sector would induce the associated carrot of enormously larger market size.

2. Proximate underlying reasons that are not as transparent

To some extent, these constraints to innovation are a hangover of the system of controls that pervaded the Indian economy in preceding decades. Once policy makers become aware of the deleterious consequences of these aspects for India's ability to build export-oriented IFS, progress should be relatively easy to make. However, far-reaching progress – which is of essence in achieving the goal of making Mumbai an IFC – will not be made until the 'proximate reasons' and 'deeper sources' of these problems are addressed. A strategic understanding of the reform effort that is required for making Mumbai an IFC requires an understanding of these proximate reasons and deeper sources.

2.1. Financial preemption

In a mature market economy, finance must interact productively with the decision-making of private economic agents and shape the resource allocation emerging out of these decisions as efficiently as possible. But Indian finance has a history of financial preemption. Formerly, the task of finance was seen as mobilising resources for the implementation of socialism at two levels: first, to fund fiscal deficits on below-market terms and second, to direct the supply of resources into socially important areas under the guidance of planners rather than the rules of the market.

Most policy-making in finance in past decades, has been shaped by financial repression: *i.e.*, forcing finance to allocate resources based not on economic efficiency but to channel it in ways sought by the state. Strong elements of financial repression continue to be in place: *e.g.*, the lack of a properly functioning bond market; forced government bond investments by banks, insurance companies and pension funds; directed credit; specialised financial institutions catering to the goals of policy makers. All these dimensions derive from financial repression. Epiphenomena such as flaws in competition policy, segmentation and barriers to innovation, are rooted in this deeper system of appropriation by the State of financial resources.

2.2. Capital controls

Flaws of competition policy, segmentation and barriers to innovation have been enabled and perpetuated by capital controls. As has been seen in India's real economy, if foreign financial service providers were able to bring

genuine competition to bear against local firms through unrestricted entry, this would rapidly change the behaviour of local firms and of policy makers.

2.3. Autarky

Flaws in competition policy, segmentation and barriers to innovation have been enabled and perpetuated by an autarkic mindset that favours Indian firms at the expense of foreign firms in a manner considered so routine and 'natural' that the counterview is deemed unpatriotic.

The provision of IFS from an IFC is uncompromisingly *international*. The players, the regulator and the legal framework have to be designed for global participation and competition, avoiding the traditional instincts of falling back into autarky. Indeed, in GFCs, an autarkic mindset would be opposed by *national* financial firms. Box 10.1 shows a fascinating example of the thought process at the US CFTC on the relationship between trading in the UK and trading in the US.

India's experiment with autarky from 1947 to 1973, where the trade/GDP ratio fell from 17% to 8% is well known to be a failure. From 1973 onwards India has been reintegrating into the world. At first, the trade/GDP ratio rose slowly, returning to the 17% level only in 1993. In recent years, the growth of trade has been more frenetic. The trade/GDP ratio has risen from 20% in 1999 to 30% in 2005. This growth of trade in goods has been exceeded by growth of trade in services. India has made significant progress on reintegrating into the world economy since 1990. Yet, policy-making in too many areas remains dominated by an autarkic ethos. This is clearly manifest in the degree of protectionism in finance. While far-reaching trade reforms have taken place, and India is now perhaps two to three years away from ASEAN-quality trade barriers, foreign firms continue to be barred from operating freely in numerous parts of Indian finance.

As Table 10.1 above shows, global IFS is dominated by a small number of important global firms. Nearly 73% of global currency trading is accounted for by just 10 firms. India has many good financial firms. Realistically, no Indian firm is going to break into this top-10 ranking in the next decade. But in the following decade it is entirely possible that an Indian financial firm may be able to buy or merge with one or more of the global big ten. The bulk of jobs created by an IFC in Mumbai will almost certainly be created by foreign financial firms. Hence, for Mumbai to become an IFC, it is absolutely essential that key global financial firms consider Mumbai as a location to shift their IFS business to.

Table 10.1: The role of the largest firms in global currency trading, May 2005

	Firm	Share in total volume (%)
1.	Deutsche Bank	17.0
2.	UBS	12.5
3.	Citigroup	7.5
4.	HSBC	6.4
5.	Barclays	5.9
6.	Merrill Lynch	5.7
7.	JP Morgan Chase	5.3
8.	Goldman Sachs	4.4
9.	ABN Amro	4.2
10.	Morgan Stanley	3.9
	All other firms put together	27.2
	Total	100

Source: IFSL, `http://tinyurl.com/yzg4mj`

For Mumbai to become an IFC that can eventually compete with GFCs, the policy goal has to shift away from championing the immediate short-term interests of Indian firms and shareholders to championing the interests of Indian employees. Too often, the discourse between the Indian governance regime and global financial firms has been one where India has tried to prevent global financial firms from participating in India. For Mumbai to become an IFC, that legacy will need to be reversed. All the arms of the Indian state should seek to attract participation by global financial firms in India for the export of IFS. That may require opening up its market for domestic financial services. While Indian financial firms may resent that competition, as in the real economy, they will be better off in confronting it and so will the Indian consumer.

This change would be similar to that which has taken place in manufacturing – where India once tried to block foreign

Box 10.1: *Internationalisation of financial regulation: an example*

As electronic trading platforms and cash settlement allow derivative contracts on anything to be traded anywhere in the world, the principle of 'local regulation of local markets' has become difficult to apply. Where is a financial market located when it operates in the ether? Is it the jurisdiction in which the exchange chooses to locate its computers? Or do we have to consider the nationality of the owners of the exchange or the nationality of those who trade on the exchange or the location of the principal cash market for the underlying contract?

A recent example highlighting the importance of these questions is the ability of the US based Intercontinental Exchange (ICE) to offer US energy contracts to US investors through its own terminals without attracting US regulatory jurisdiction – thus benefiting from the principles-based regulation of the UK. ICE Futures in London (formerly the International Petroleum Exchange or IPE) which is owned by ICE, launched futures on the WTI crude oil that is consumed in the US, as opposed to the Brent crude futures that is normally traded in London. These are cash settled off the WTI price in the US (at NYMEX). After ICE was permitted to use its trading terminals in the United States to allow US investors to trade the WTI crude oil futures on ICE Futures in London, WTI volumes in ICE Futures have grown to about half of the NYMEX volumes. The result is a fascinating situation where there is:

1. A liquid contract on a US commodity
2. It is predominantly traded by US participants
3. It uses terminals in the US
4. It is traded on an exchange that is owned by a US entity
5. But it is located and regulated in the UK for reasons of regulatory arbitrage.

After the collapse of Amaranth, a large US hedge fund that had huge positions in energy futures both in ICE and in NYMEX, the US Commodities and Futures Trading Commission (CFTC) reviewed and reaffirmed its existing policy exempting the ICE futures contract from US regulation on the ground that it is a contract on a foreign exchange. The CFTC stated that:

1. The trading volume originating in the US did not determine a US location
2. The fact that the contract is based on a US produced or economically important commodity did not probate location

The CFTC will thus continue to rely on the quality of the regulation of ICE Futures by the UK Financial Services Authority (FSA) as well as the information sharing arrangements that it has with FSA. This thinking by the CFTC underlines a mature and internationalised perspective on financial regulation, uncontaminated by nationalist pressures or resentment about 'regulatory arbitrage'.

If Indian regulators accept the principles followed by the CFTC, foreign exchanges would be able to offer their contracts directly in India through electronic trading platforms. This would not require full capital account convertibility since the RBI now allows Indian citizens to remit up to $50,000 a year outside India for investment purposes. Indian citizens can use this facility to pay for the contracts that they buy on foreign exchanges. Foreign exchanges would also be able to offer trading in India on ADRs and GDRs of Indian companies provided the Indian investor pays for them in dollars. This would produce better price discovery in the ADR market and reduce the price gap between the Indian and offshore markets.

Source: Blog entries by Jayanth Varma, `http://tinyurl.com/yz6b7`

firms but now engages enthusiastically in promoting inward FDI for export-oriented manufacturing firms that can also supply the domestic market. India has replaced its legacy of autarky with an open economy when it comes to trade in goods and most services except financial services. Teams of Indian workers are tightly integrated into the world economy when it comes to BPO which has yielded $20 billion of export revenues. Such phenomena are starting to take place in manufacturing also. A comparable philosophical change is now required in the finance industry, if India is to achieve $40–50 billion of export revenues in finance and, alternatively to prevent the drain of $50–70 billion in payments for IFS acquired abroad. A serious effort to create an IFC will involve road-shows all over the world where presentations are made to global financial firms requesting them to consider India as a destination for FDI in finance. Export-orientation in finance requires attracting FDI exactly like export-orientation in manufacturing does.

2.4. Legacy institutional architecture

The problems of competition policy, segmentation and barriers to innovation that inhibit Mumbai's emergence as an IFC are partly the consequence of a financial regime governance whose foundations were designed at a time when the world of finance, the functions of regulation, the contours of financial activity, and global competition in IFS, were different.

While the superstructure of this governance regime has been modified in bits and pieces from time to time to yield a shape of multiple regulators that is distinctly ungainly in design and, perhaps dysfunctional, the conceptual foundations of the basic regime have remained untouched. The RBI Act was first drafted in 1934. Although it has been amended several times since it has not been fundamentally changed at its roots. The SC(R) Act was drafted in 1953 and the FC(R) Act in 1952. The separation between SEBI and FMC is rooted in the FC(R) Act of 1952. The strategic thinking governing these three Acts would be addressed very differently if they were to

be drafted using contemporary knowledge.

Many of the problems of competition policy, segmentation and barriers to innovation that India's financial system confronts, and that impinge heavily on the issue of making Mumbai an IFC, flow from the conflicts of interest inherent in the multiple objectives and activities of the RBI, ultimately derived from the original RBI Act. In addressing the problems of competition policy, segmentation and the barriers to innovation in finance, the roles, functions, attitudes, ethos and objectives of financial regulatory agencies in India requires a new look; particularly in light of what has been happening in the world as well as the different realities of 21st century India.

3. Deeper sources of dysfunction

It would be misleading to suggest or conclude from the foregoing discussion that the several complex issues raised by financial regulation in India, are issues purely of regulation ***per se***. They often have more to do with the legacy context in which financial regulation has evolved to accommodate an array of multiple objectives – both regulatory and strategic. These often conflict; implicitly if not visibly. In that connection, it should be noted that a considerable burden has been placed upon the RBI for taking the brunt of dealing with continuing difficult structural adjustment since 1992. The weight of adjustment has fallen disproportionately on adjusting monetary and exchange rate policy simply because fiscal policy has proven stickier, and insufficiently elastic/flexible, in adjusting commensurately, for reasons of political economy. In performing this task, RBI has also had to protect: (a) the soundness of the Indian financial system, as well as (b) the government's interests as India' single largest shareholder in financial firms.

The adroit manner in which that dual responsibility has been acquitted is not as fully realised or appreciated as it should be. Many astute observers of the financial scene believe that such a doctrine – which derives from the authority of a reputation earned and acknowledged over a long period of time – is now being exercised in a manner that continues to protect the contours of financial regime governance from an era of autarky that has now passed and become dysfunctional.

In doing so, it is implicitly influencing the future development of the Indian financial system (inadvertently or otherwise) in ways that may not necessarily be consonant with Mumbai becoming an IFC or with Indian firms competing effectively for providing IFS in the global arena. With the inhibitions and restrictions leading to financial repression (or inadvertent implicit suppression of innovation) having their roots in deeper historical realities that have not yet adapted to the agenda for reform, it is necessary to be clearer about what these realities actually are, and what needs to be done to alter them, to enable India's evolution as one of the world's most significant economies to occur as smoothly and painlessly as possible.

3.1. The 'ownership' problem and the conflicts-of-interest it causes

As in China, **government ownership** continues to be a major feature of India's financial system. It poses the same difficult challenges for both these countries as they attempt to export IFS and globalise their financial systems. There is now universal agreement, in global academic and financial circles, that public ownership of financial firms creates an intractable number of avoidable difficulties in influencing the development and regulation of sound financial systems. Most importantly (in the context of the emerging Basel-II regime), a number of conflicts-of-interest arise between the roles of government as the ultimate **apex regulator** of the financial services industry (which it remains in the absence of constitutional independence and legal/juridical separation from government of the RBI, SEBI, FMC, and other regulators) while also being:

(a) The **largest owner** of financial firms being regulated: *i.e.*, commercial banks – and their capital markets subsidiaries – as well as in other parts of the financial services industry such as: specialised long-term financial institutions, insurance companies,

asset management firms, pension funds, and firms/agencies involved in commodities.

In the mutual funds industry (and, to a lesser extent, insurance), India has made some progress with permitting entry of private and foreign players, as well as creating a more level playing field in regulating that industry. The point has now been reached where, although UTI is still the dominant mutual fund, it no longer commands an overwhelming market share.

For Mumbai to become a viable and competitive IFC within the next few years, this successful experiment in the asset management segment of financial services, needs to be replicated in all other segments, most particularly banking and insurance. It needs to be accompanied by eliminating restrictions on: (i) the formation of financial conglomerates or LCFIs that can compete with their counterparts in the rest of the world; and (ii) the entry of hedge funds and the entire range of other funds such as exchange traded funds across the spectrum.

(b) The **single largest borrower** from the Indian financial system, with an inherent vested interest in keeping the cost of its borrowing suppressed to the extent possible; even when that might have larger implications in managing monetary policy and sending signals through interest rates that affect every big price in the economy.

In the absence of constitutionally guaranteed regulatory independence – *i.e.*, with regulators being independent public agencies accountable to the legislature (as they are in many countries) rather than to government – the government's ultimate responsibility for sound, impartial and objective regulation, collides unavoidably with its ownership and borrowing interests. Not only does that create a conflict of interest in a fundamental sense (*i.e.*, the *non sequitur* that arises from an entity regulating itself), it also incurs the risk of compromising fairness of treatment on a uniform basis for all financial firms.

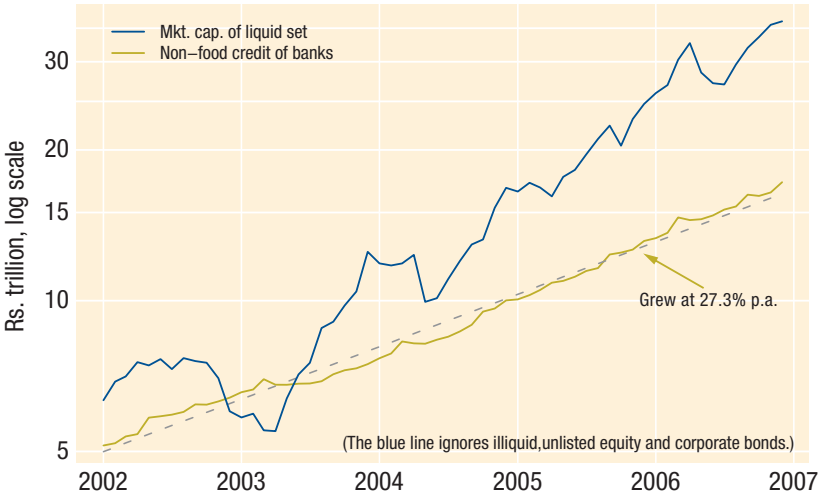
Apart from the invidious and corrosive nature of these conflicts of interest, studies of government ownership of financial firms around the world suggest that it leads to a normal propensity to protect, at any cost, the survival and profitability of public sector financial firms through artificial means. By so doing, it generates perverse incentives for government to diminish competition, enforce artificial and counterproductive segmentation, and throw up greater barriers to innovation.

In evaluating the characteristics of established or emerging IFCs worldwide, it is significant that none of these cities (other than Shanghai, which is further behind than Mumbai in having a financial services industry that can become globally competitive quickly) have any significant public ownership of financial firms in any segment of financial markets. The most vibrant parts of Indian finance – the securities markets – where export competitiveness is perhaps most visible in the attraction of voluminous foreign portfolio investment, are the parts where public ownership is the smallest. That is no mere coincidence. It signals clearly what the government needs to do in withdrawing gradually but resolutely from the ownership of all financial firms within the political economy constraints it confronts (but not using those as a reason to defer taking action indefinitely). That is indispensable to create the institutional and competitiveness conditions that are necessary and fundamental for Mumbai to become a viable IFC.

3.2. Strategic issues of public debt financing and management

An in-built propensity toward financial repression has become chronic and endemic in India. It has its origins in historical conceptual notions among post-independence policy-makers, seduced by the supposed development success of the USSR in 1918–50, about how public (sovereign and sub-sovereign) debt should be financed and managed. Lacking belief in the efficacy, desirability (and feasibility) of India's having efficient capital markets in the 1950s, the option of creating a wide, deep and open bond market (for sovereigns, sub-sovereigns, municipals and corporates) – of the kind that now characterises almost all mature economies – was eschewed in the nascent stages of India's economic and financial system development.

Figure 10.1: Market capitalisation of COSPI firms against non-food credit (trillion rupees)



In the 21st century there is a need for fresh thinking on the part of policy-makers about strategic issues of debt financing, issuance and management. Financial liberalisation does not inevitably imply that it will result in a shortage of voluntary and enthusiastic buyers for government bonds. Quite the contrary; whereas resident Indian investors with few portfolio diversification opportunities might be sated with Indian sovereign obligations, either directly or indirectly, global investors have an enormous appetite for digesting Indian paper that has not been addressed, leave alone satiated.

Through financial sector reforms, a liquid INR yield curve can easily be attained, with a market populated by a very large number of participants. This is likely to deliver superior, and far more flexible, financing options along the maturity/duration and coupon spectrum. It would also widen geographical scope for financing the fiscal deficit; especially in the global marketplace (even for paper denominated in INR) when compared with the present regime.

Resorting to the global marketplace, and meeting global demand for Indian sovereign paper, would ease crowding out pressures and pre-emption in the domestic market. That would have the benefit of easing demand-supply induced pressures on Indian interest rates. It would create more room for manoeuvre on the part of RBI in executing monetary policy; independent of the MoF view on what the level of interest rates should be. The lack of independence of the central bank hinders acceptance by global investors who prefer to operate in an IFC that adopts global norms concerning separation of powers between monetary and fiscal authorities, and permits independence on the part of both to pursue the most appropriate and optimal policy options.

A key part of this strategic thinking on debt management is the role of foreign investors. A liquid INR yield curve that can be traded in an efficient bond and bill market by foreign investors is likely to attract enormous investment flows into Indian sovereign debt from long-term global fixed income portfolios like pension funds. This would result from (a) pressures for diversification in global fixed income portfolios, especially favouring investment in developing economies that can sustain a superior growth rate over several decades as India can, providing its real economy is managed as well as it is now and its financial system reflects global standards; and (b) the positive outlook for India and the INR over the next 20–30 years. The participation of these investors requires a modern bond market. That feeds back into establishing a liquid INR yield curve. Access to such financing would constitute a far-reaching transformation of Indian public finance.

3.3. Lack of strategy on the transition from a bank-dominated system toward a market-dominated financial system

Finally, there has been an absence of sufficiently clear strategic thinking on the evolution of finance, both domestically and internationally, away from banking towards securities (Litan, 1991). In India, an examination of the liabilities of firms on a market value basis shows the dominance of equity financing. As shown in Figure 10.1, the market capitalisation of the top 2,500 firms of the equity market stands at roughly twice the size of non-food credit of the banking system (which comprises loans delivered to big companies, small companies and individuals).

A commensurate transformation of the policy framework has not taken place. In

many respects, Indian finance continues to be rooted in the past, with a banking-dominated financial system that should, by now, have become much more capital-market oriented especially in the market for debt in the form of traded securities rather than bank loans.

4. What impedes Mumbai from becoming an IFC? A summary

This group of three chapters has dealt with some of the critical hurdles that presently impede the emergence of Mumbai as an IFC. Clearly, making the profound changes that are necessary in financial regime governance (*i.e.*, adapting legislation to meet modern realities, policy-making, regulation, enforcement, and changes in the functioning of the legal system that provides recourse for contractual dispute settlement) is a complex undertaking. Swift progress will be difficult to make.

India has a reputation for taking far too much time to contemplate and discuss changes *ad infinitum* without necessarily acting on them. China has the opposite reputation of acting too swiftly, without thinking through all the implications.

So far China has made more progress than India.[1] Perhaps there is a lesson in there somewhere, although the optimal solution would be to blend both these opposite tendencies in a happy medium. Neither country can afford, however, to delay its entry into the burgeoning global market for providing IFS – driven in large measure by their own needs as they become more significant players in the global economy. The Indian financial industry and policy-makers need to focus on, and engage with, these problems at many levels simultaneously, in order to address these difficulties.

Portraying the world of IFS in a somewhat simplistic but nevertheless powerfully illustrative matrix, the wallchart constructed for this purpose offers specific, tangible views on what holds back a specific IFS from being provided in India and what needs to be done to make India a significant player in IFS markets on the world stage.

[1] See `http://tinyurl.com/yu4zk7` on the web on this theme.

Reforming financial regime governance

chapter 11

The previous three chapters offered a diagnosis of challenges in financial governance regime that inhibit Indian firms from exporting IFS. This chapter offers an alternative path for progress to be made on this frontier. It dwells on the normative economics of financial sector policy at the level of ideas. Based on these, specific recommendations that need to be implemented for an IFC are made in Chapter 15.

1. A shift toward principles-based regulation

India's strategy for financial regulation deploys *rules based regulation* – the same strategy used in continental Europe and, to a significant extent, in the US. It consists of building up a large repository of subordinate law through codification of detailed rules and regulations by specialised regulators. These define the permissible features of financial products and services and the functioning of financial markets in detail. Such a prescriptive approach avoids legal ambiguity through precise codification. Rules-based regulation has two strengths. First, it provides greater legal certainty to market players, who are able to abide by clear rules governing all aspects of their business. Second, it enables financial regulators and supervisors to operate in a non-discretionary manner. As the manual of rules defines all permissible activities, the act of supervision reduces to ticking off a long checklist, and objectively verifying whether specific rules have been complied with or not. However, over the decades, important weaknesses of rules-based regulation have become visible:

1. Sophisticated compliance officers of finance companies are frequently able to find ways of pushing the edge of the envelope while not violating the letter of the law. Supervisors focused on codified rules cannot look beyond the letter of the law to its spirit. In recent years, many large financial firms in New York engaged in activities which were unfair to customers and did not meet minimum ethical standards. However, most of these firms were still able to argue that no laws had been violated and supervisors could not disagree though both knew that the spirit and intent of the law had not been honoured.
2. From the viewpoint of detection of fraud, or of impending firm failure, supervisors need to have an overall understanding of the business of the firm. They need to understand its business plan and its sources of profit to form a judgment about the incidence of malpractice or probability of default. Rules-based regulation requires supervisors to focus on minutiae. It obscures the woods from the trees. This leads to reduced awareness and inferior perceptions about financial firms in the minds of supervisors.
3. Rules-based regulation inhibits innovation. Every new idea on products, services, markets or even new ways of doing business requires going to the regulator requesting a modification of rules. This tends to eliminate the temporary profits obtained by innovative firms who obtain an edge over their competitors by coming up with new ideas, which (in turn) tends to reduce investments into research and development.
4. Rules-based regulation induces corrosive political economy, where firms seek to influence the evolution of rules into pathways which favour themselves.

High quality regulation and supervision is a *sine qua non* for IFS. It determines the competitiveness of an IFC. If an IFC lags in innovation, through slow governance

processes, and through weak incentives for firms to invest in innovation, then that IFC will lose competitiveness and global market share. If regulators and supervisors at an IFC are unable to block fraudulent or unfair behaviour by firms, and are ineffective in setting up a sound risk management system for markets and firms, then the IFC will lose reputation as well as global market share by becoming a pariah.

The alternative to rules-based regulation – *i.e.*, '*principles-based regulation*' or PBR – was first introduced in the UK in 1997. It involves less detailed prescription of what is allowed and what is not in every activity or market, less codification, less rigidity of rule-book interpretation, and a greater reliance on practice and precedent. The prime exponents of this approach are the UK, Ireland and Australia. However, the ideas underlying this new regulatory approach are being applied all over the world, including in established IFCs like Singapore. The same ideas have been adopted in Japan. But they have been less effectively implemented there. Japan has had difficulty erasing the legacy of US-style rules-based regulation with the meticulous application to detail that Japan's supervisors appear loath to relinquish. That stance has inhibited Tokyo's role as an IFC. It serves as a lesson for Mumbai as well.

The bedrock of PBR is that the regulator articulates broad principles and avoids codifying details of allowable products, markets or business plans. Under PBR, the top management of financial firms is held accountable for ensuring that the business plan of the firm, and all its activities, are consistent with the principles defined by the regulator – *i.e.*, not just with the broad letter of the law but with its intent and spirit. It removes incentives for financial firms to play an adversarial game (induced by rules-based regulation) of 'beat-the-regulator' to become competitive. Under PBR unsavoury business plans for financial market operations cannot be rendered palatable by clever compliance officers. By its very nature PBR ensures that such game-playing does not take place. With PBR, supervisors are inevitably called upon not to think of supervision in terms of checklist compliance. They are required instead to understand a financial firm's: sources of profit; core businesses processes; corporate adherence to 'principles' based on its management commitment, its corporate culture and the corporate sanctions applied to rule-breakers; as well as the strength and depth of its compliance processes. Principles-based supervisors engage in broader and deeper continuous interaction with the financial firms being regulated to understand their businesses and to anticipate how they are evolving as markets change. They are often consulted by the firms they supervise about new products and ideas informally but do not have the powers to block those ideas from being tried out. Their influence is through relationship and persuasion rather than through policing.

The main strength of PBR is that it fosters innovation. It encourages greater competition among financial firms that are able to introduce new ideas into markets rapidly. The malpractices that occur when supervisors focus on checklist compliance are avoided. However, PBR imposes onerous demands on, and requires adequate protection for, the staff of supervisory agencies. They are required to understand each regulated firm, and make discretionary judgments about whether its business plan and *modus operandi* are consistent with the principles established by the regulator. This requires an elaborate system of transparency and checks-and-balances, in order to prevent abuse. No approach is perfect. Rules-based regulation poses no such risk for supervisory staff apart from the risk of performance failure. PBR, on the other hand, places greater burdens of knowledge, responsibility and accountability on supervisory staff. PBR runs the risk that: (a) supervisory staff might misuse their discretion; and (b) they may need to be shielded sufficiently to be confident about exercising discretion and not become convenient political scapegoats when things go wrong.

Applying a historical perspective, the use of PBR at the FSA is not that unique. As Jayanth Varma has pointed out, it is only in modern times that regulation by the US-SEC has turned into *de facto* over-prescription. In its early years, the US-SEC had enormous flexibility and competence, with a more flexible, accommodating

philosophy much like PBR. The SEC was a product of the civil law era in US administration (the New Deal). But Chairman Douglas made the SEC the most successful and least prescriptively oriented of all the New Deal agencies. The US-SEC in its heyday – the Douglas and Landis eras – stands out as an exemplar of the flexible PBR approach. This period probably laid the foundations of the enormously successful US financial system. It would probably not have emerged as such if the existing US approach of over-prescription and harmfully intrusive legislation had been applied in the formative years.

The European Commission has also become an outpost of excessively prescriptive approaches to financial regulation. It stands out in sharp contrast with the FSA. The shift at the SEC and on the continent towards over-prescriptive rules-based regulation has helped London to achieve success as the world's premier IFC [1].

PBR requires a regulator to make informed judgements based on an understanding of firms, their customers, and the markets in which they operate. In making judgements about outcomes, and about what constitutes minimum standards, PBR requires a broad degree of consistency in terms of the quality of outcomes that firms deliver; rather than consistency in detailed requirements about processes. Firms are expected to adopt approaches to delivering outcomes that meet high regulatory objectives.

There has been some movement towards principles-based regulation in the US also. For example, in 1974 the US Congress created the Commodity Futures Trading Commission (CFTC) for oversight of derivatives exchanges. This resulted in regulatory bifurcation in the US, with spot markets being regulated by the SEC and futures markets being regulated by the CFTC. A key milestone for the CFTC was the Commodity Futures Modernisation Act (CFMA) of December 2000. This law radically changed the approach of the CFTC, away from a rules-based system towards a principles-based system. The CFMA defines 8 'designation criteria' and 18 'core principles'. Under the CFMA, a futures exchange only has to certify to the regulator that it is starting a new product or rule, with a notice of at least one day in advance. If the exchange wants to request an approval, the agency has 45 days to give it.

In contrast, stock exchanges in the US cannot change products or rules without a notoriously slow approval process at the SEC. In a speech in June 2006, Commissioner Walt L. Lukken said the CFMA gave exchanges the flexibility required to foster innovation, saying:

> "While the CFTC monitors whether a core principle is ultimately met, the exchanges with their hands-on experience are given discretion to tailor their rules to their special circumstances".

2. Reducing the artificial segmentation of financial firms, products, services and markets

How can the problem of segmentation in Indian finance be addressed? In four ways.

2.1. The holding company approach

In an international setting, financial firms exploit economies of scope and scale by operating in all sub-segments of financial product/services markets. Global LCFIs have reaped competitive advantage in the global IFS market as a consequence. In some jurisdictions, such as the UK, the integration of all financial regulation under a single regulator has facilitated the integration of a range of financial activities in unified financial firms. But many countries have fragmented regulatory architecture, as in India. In such instances corporate structures need to be contrived to support the creation of a virtual unified financial firm that is able to operate in any or all areas of the financial services business. The most expedient of these is the "holding company

[1] Across the Irish Sea is an even more remarkable financial regulator in Ireland (IFSRA). It has a reputation exceeding that of the FSA in terms of applying the rule of common sense alongside common law. It is increasingly seen as one of the smartest and most flexible securities regulators in the world.

Box 11.1: *Principles-based Regulation in the UK*

The way in which the FSA operates in regulating the City of London is important in understanding regulatory issues surrounding IFS provision owing to innovations in regulatory strategy. PBR was pioneered in the UK. But it appears to have taken root in several OECD countries. It is now a well respected regulatory doctrine around the world. The US is also likely to apply it before too long if the initiatives now in train come to fruition.

In May 1997, fundamental financial reforms were announced in the UK. The Bank of England was made an independent central bank with the sole objective of setting the short-term (base) interest rate with accountability for hitting a publicly stated inflation target (of keeping inflation under 2%) through an open and transparent process. All functions other than setting the short rate were removed from the Bank of England.

All financial regulation that was previously undertaken by nine separate agencies was unified under a new single regulatory/supervisory agency called the Financial Services Authority (FSA). It was seeded with the 500 people from the Bank of England who used to do banking supervision from there, and the staff of all other existing financial regulators.

By 2006, it is increasingly clear that the FSA approach has worked in the UK. The FSA has managed to steer clear of three kinds of problems: the populist regulator who likes to play to the gallery by currying favour with ordinary citizens; the conservative regulator where the default answer to all questions concerning innovation is 'no'; and the US-style approach of introducing enormous legal-overheads on the production of financial services. Whereas the UK was afflicted by recurring failures and crises concerning foreign banks in the financial system in the 1970s and 1980s, these have been conspicuous by their absence since 1997.

The first innovation of the FSA is its mandate. The law asks FSA to attain four equally important objectives: (1) Maintaining market confidence (2) Promoting public understanding of the financial system (3) Securing an appropriate degree of protection for consumers; and (4) Combating financial crime. The law codifies little about markets and products. It focuses on broad principles. It is interesting to see that that the objective of the FSA is one of securing *appropriate* consumer protection, not infinite consumer protection at any cost.

The FSA is tasked with making markets work to deliver benefits to firms and consumers. It accepts that some failures neither can, nor should, be avoided. Failures are part and parcel of what makes markets work and provide an important source of future learning. The mandate of the FSA is designed to avoid the loss of efficiency from the conservative instinct of setting up a license-permit raj, or the periodic heavy handed front-page-headlines crackdown on finance which happens with populist regulators.

The integration of all financial system regulation at FSA makes it easier to transmit knowledge on success from one part of the FSA (say banking) to another (insurance). Internationally, most banking regulators view securities markets with suspicion or hostility. However, the global economy is shifting away from banks to securities-market dominated financial systems. The merger of banking and securities into the FSA has ensured that FSA-regulated banks are not hindered from deep integration with securities markets. Instead of discouraging integrated LCFIs, the FSA is perfectly happy to see them bloom.

'Principles-based' or 'light-touch' regulation was originally conceived at the Bank of England prior to the 1997 reforms. The main insight it applied is that it is neither feasible nor desirable to write down detailed rules governing every market and every product. Under this philosophy, it is simply not possible, nor even necessary, for regulators to try to anticipate every change or innovation that might occur in financial markets; especially given the sheer size of the number of participants, the changing needs of an even greater number of sovereign, corporate and individual users of financial services, and the inexorable global integration of national financial systems. Attempting to do so simply inhibits innovation and detracts from competition. Instead it is important to focus on broader strategic issues and let firms worry about regulating themselves on points of detail – but under the continuous watchful eye of friendly and co-operative FSA supervisors, should things go pear-shaped.

Debate about 'light-touch' vs. traditional regulation is essentially an argument about the relative costs and benefits of over-prescription vs. flexibility. The contrasting US approach on the part of all regulators, except those for derivatives markets where most financial innovation takes place, attempts to codify a full set of rules covering every product and market mechanism in fine detail. The alternative strategy, adopted by the FSA, is one of articulating broad principles, and leaving market players to continually innovate on the details through which these broad principles will be achieved.

A conceptual goal of the FSA is that the top management of a financial firm must primarily look at markets and innovate, without worrying about the regulator. This is strikingly reminiscent of India's experience with dismantling the control raj in manufacturing, where the reforms were about turning the gaze of the CEO away from the government towards the market. PBR consists of applying that approach to finance. The FSA places a complex burden upon the financial firm and upon its own staff: that of understanding broad principles and adhering to them in spirit. In return, detailed rules governing every minute detail of every activity in finance have been eliminated. CEOs of financial firms in London innovate on an everyday basis without needing to continually approach the regulator for permission associated with every change in the business plan.

Large complex firms (LCFIs) are linked to specialised relationship-management teams in the FSA which provide a single point of contact. The team at FSA that deals with the large firm is given three tasks: (i) understanding the sources of profit of the firm; (ii) understanding that the business plan and processes are consistent with the principles of the FSA; and (iii) verifying that the processes of the firm perform satisfactorily and that risk is being managed properly in the broadest and narrowest senses. The FSA team makes regular presentations to the board of the regulated company about their understanding of the areas of concern. This improves the pressure on the FSA team to have a sound understanding of the regulated firm.

This approach makes two kinds of demands upon the staff of the FSA. They are required to understand the regulated firm in a manner akin to a strategic management consultant, a responsibility not replicated or attempted at a conventional regulator in India. Further, FSA staff are empowered to act based on their own discretionary judgment.

There is an interesting contrast between a principles-based approach and a rules-based approach. In a rules-based approach, as is practiced in India or in the US, it is all too easy to have rigid checklists that RBI or SEBI staff must verify by ticking boxes on long laundry lists when they interact with a firm. This gives supervisory staff plausible deniability when anything goes wrong. This, of course, does not uncover or solve underlying problems.

The FSA approach emphasises the need for intelligence and judgment on the part of regulatory staff, not just a mechanical checklist of rules. The FSA approach requires top quality professional staff, that have considerable operating experience in financial firms, and are capable and senior enough to apply their own judgement independently without fear or favour. In order to help achieve this, FSA wages are decoupled from civil service wages, and linked to median wages in the private sector. More than half of FSA's staff comes from the financial industry, through a continuous two-way flow between the FSA and the industry.

Box 11.1: *continued . . .*

With the concentration of monopoly regulatory power at the FSA, there is enormous concern about accountability and checks on the power of FSA and about the possibility of regulatory capture. This has been accommodated through numerous checks-and-balances. The first is that of having staff that understand fully real world finance, and hence avoid automatically falling back on saying 'no' as the default option when faced with any complex idea. A statutory 'practitioner panel' watches the FSA and writes reports about areas where things are going wrong. There is a tribunal for appeal on enforcement matters, much like the Indian Securities Appellate Tribunal (SAT). Finally, when there are **policy** disputes between the industry and the FSA, the UK Treasury (its Ministry of Finance) plays the role of a tribunal.

The UK finance industry accounts for 8% of its GDP. If FSA stifles the innovation or competitiveness of this industry, it impacts directly upon GDP growth. Apart from that, the City of London is extremely influential politically and government takes its interests very seriously. This generates incentives for top policy makers and politicians running for election to take interest in sound financial regulation, and ensures the global competitiveness of London as an IFC. It also constitutes an effective feedback loop between export orientation and high quality provision of the 'public good' of regulation.

One practical example of the debate between a rules-based approach and a principles-based approach concerns the operations of hedge funds. The FSA approach emphasises the enormous positive contribution that hedge funds to market liquidity and market efficiency. The FSA has emphasised supervising hedge funds through prime brokers. Prime brokers are typically arms of (regulated) investment banks, and provide hedge funds with a range of services, including securities lending, leveraged-trade transactions, and cash management. They are close to the market, so they can keep regulators informed; and, because their money is at risk, have an interest in keeping abreast of what hedge funds are doing.

This approach relies on the self-interest of, and intelligence from, prime brokers, instead of trying to write down rules and send out government employees to visit hedge funds and comprehend what each of the 8,000 hedge funds of the world is doing.

The FSA approach is both instantly appealing and attractive, yet extremely challenging in implementation. The idea that CEOs of financial firms can think about innovation and not undertake regular pilgrimages to the Treasury, the Bank of England, the FSA, and other offices of government agencies to further their firm's business interests is enormously attractive.

At the same time, the UK approach is daunting on many fronts. The principles based approach can reduce the legal certainty on which firms operate. It places discretionary power in the hands of regulators and supervisors all the way down the line.[a] It requires these officials to have high quality understanding, judgment and probity. And, it requires that they be shielded from a witch-hunt when discretion is exercised and things go wrong.

The most important testimony about the UK approach is the fact that in the last decade, London has emerged as the world premier financial centre, once again overtaking New York after a 50-year hiatus. That process has, of course, been assisted by other factors such as terrorism in New York, Sarbanes-Oxley, and the civil law approach of the EU. However, there is little doubt that the far-reaching decisions of 1997 in reforming the Bank of England and the FSA transformed the position of London on the global financial stage.

[a] In the classification scheme of Pritchett and Woolcock (2004), the hardest problems of governance are those where there are many interactions between civil servants and private citizens, and there is discretion in the hands of the civil servant.

structure". If the structure of regulation prohibits commercial banks from fund management, then the solution involves a mother corporation that has two wholly owned-subsidiaries, one a commercial bank and the other a fund manager. The virtual financial firm would then be engaged in both businesses while satisfying the separate regulators covering each area of business.

In the most refined case, the holding company would be a listed company, with a corporate HQ engaging in pursuing the business strategy of a unified financial conglomerate. From the viewpoint of the shareholder and the CEO, the firm is a unified multi-product financial firm, with a series of wholly-owned subsidiaries present in areas as required by regulatory rules. The CEO and the board of the holding company would make decisions about allocating capital and forming business strategy for the virtual firm. The strategy would be executed by multiple subsidiaries. The CEO of each subsidiary would then be roughly equivalent to the chief of each major operating business division of the virtual unified firm.

In order to achieve these goals, the holding company must be required to comply only with the Companies Act and with exchange listing requirements; in the event that it is listed. It should be subject to no financial regulation from any regulator. The fact that a subsidiary of the holding company may be a bank should give the banking regulator no power over the owner of the bank, *i.e.*, the holding company. Further, regulations governing banks, insurance companies, *etc.* need to accept 100% ownership in the hands of holding companies that can have dispersed shareholding and public listing requirements along the lines applied to any other company in any other line of business. Apart from regulatory constraints, the other constraints faced with a holding company structure in the Indian environment are:

Box 11.2: *Case Study – Principles-based regulation in the UK for treating customers fairly*

As an example of how PBR works, consider consumer protection, or what the FSA calls "Treating Customers Fairly" (TFC)[a]. The FSA has defined six desired outcomes from its work in the TFC area:

1. Consumers can be confident that they are dealing with firms where the fair treatment of customers is central to corporate culture
2. Products and services marketed and sold in the retail market are designed to meet the needs of identified consumer groups and are targeted accordingly
3. Consumers are provided with clear information and are kept appropriately informed before, during and after the point of sale
4. When consumers receive financial advice, the advice must be suitable and tailored to take explicit account of their circumstances
5. Consumers are provided with products that perform as firms have led them to expect, and the associated service is both of an acceptable standard and also as they have been led to expect
6. Consumers do not face unreasonable post-sale barriers imposed by firms to change product, switch provider, submit a claim or make a complaint.

These six principles define what the FSA requires the financial industry to do for consumer protection. FSA emphasises the responsibility of the senior management of finance firms – and not just their compliance departments – to embed these objectives within the business strategy, culture and behaviour of their firms. The FSA holds the top management of each firm accountable for meeting these six desired outcomes, and not seek to micro-manage firms on how these outcomes are achieved.

This principles-based approach provides financial firms with more flexibility to decide how best to run their businesses, while meeting FSA regulatory objectives. Firms are better placed to judge the detail of how best to deliver those outcomes in the marketplace, and thus deliver fair treatment to their customers in a way that is consistent with their commercial objectives. FSA argues that providing flexibility rather than prescribing detailed processes enables firms to compete and innovate more effectively in product design, in the quality of customer service, and in achieving economic efficiency.

FSA works on improving financial capability and awareness of consumers, and the provision of clear information by firms and by the FSA to consumers, to help consumers to pursue their own best interests by playing an active and informed role in the markets for financial products and services. Enforcement actions are taken against firms and their senior management when they fail to achieve high level outcomes.

As part of the move to a more principles-based approach, FSA is working on removing a significant volume of detailed rules on consumer protection. Detailed rules on money laundering, and on training and competence for wholesale business have been removed. The Authorisation Manual is being dismantled. It intends to further implement a radical simplification of investment Conduct of Business rules, rules on financial promotions and rules on complaints handling.

When firms ask FSA to define minimum standards, in the quest for legal certainty and predictability, the FSA response is that the Principles and other high level rules are themselves minimum standards, and that FSA sees these minimum standards primarily in terms of outcomes, not of prescribing detailed inputs and processes.

Predictability is enhanced by statements of good and poor practice and through case studies illustrating ways in which firms have successfully met requirements. Such statements of good and poor practice help senior managements of firms to think for themselves about how best to meet high level requirements within the specific circumstances of their own activities and business models. By publishing examples of good and poor practice on either side of an acceptable standard, FSA indicates to firms both where the minimum standards lie, and that there are alternative ways of delivering them. In doing this, FSA respects the confidentiality of 'proprietary' good practice that firms have developed to give themselves a competitive advantage.

[a] See `http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2006/0724_cb.shtml`

A. Tax consolidation of accounts. Under Indian GAAP, a listed holding company has to present stand-alone *and* consolidated accounts. However, for income-tax purposes, such a consolidation of accounts is not presently permitted. At a conceptual level, it would be desirable to tax a group on the basis of its overall financial performance incorporating the performance of all subsidiaries put together. Worldwide there are a number of jurisdictions, such as the US, UK and others that tax a corporate group as a single unit. Although the scope and approach may vary from one jurisdiction to another, tax grouping allows offset of profits and losses within the group, with a few countries extending the concept to cover foreign subsidiaries. Hence, there is a case for introducing a group tax regime, that is simple to administer, and involves low compliance costs. Flexible rules need to be specified governing intra-group transactions and corporate reorganizations. The regime can prescribe conditions, such as minimum holding periods and condition for qualifying for group level consolidation, consistency of financial years, entry and exit issues *etc.*

B. Dividend tax credit. When a subsidiary company pays dividend to its holding company, it pays a dividend tax of 14.025% in India. A dividend payout by the holding company to shareholders incurs a second dividend tax of 14.025%. This vitiates the viability of the holding company structure.

C. Leverage by the holding company. Section 293 of the Companies Act, 1956, specifies that, without consent of shareholders, a company cannot borrow more than the

Box 11.3: *Principles Based vs. Rules Based Regulations (PBR vs. RBR)*

1. Principles Based Regulation (PBR) is outcome oriented
2. It differs from Rule Based Regulation (RBR) which is process driven.
3. PBR is based on the idea that the regulator is not always best placed, or better placed than market participants, to judge what is best, or what is right and what is wrong in terms of products, instruments, services, practices or market functioning.
4. PBR is based on the premise that competition and innovation in rapidly evolving markets driven by technology should not be inhibited by over-prescriptive regulation.
5. PBR allows for greater flexibility in devising internal corporate business and compliance processes to cope with changes in rapidly evolving markets
6. RBR invariably prescribes permissible business processes in micro-detail and changes too slowly in response to market changes.
7. The overall effectiveness of PBR is critically dependent on the ethical and governance standards that prevail in the financial and corporate worlds in any country.
8. The higher such standards are in a given operating environment, the better is compliance with PBR and the better its overall outcome.
9. In an environment accustomed to RBR, regulators see PBR as posing high regulatory risks
10. They fear that the operating flexibility that PBR permits could be misused in environments with insufficiently high standards of internal corporate ethics, compliance and governance.
11. With RBR, market participants leave it to regulators to specify what those standards should be through detailed rules.
12. But experience suggests that RBR does not necessarily or automatically instill or encourage high standards of ethics or governance to be applied in any particular environment.
13. What RBR appears to encourage is the development of capabilities aimed at evading rules through technicalities and loopholes. This weakens incentives for better self-regulation within the regulated industry and induces a tendency for market competition to be driven by a propensity for cleverly evading rules faster than the competitor.
14. The key to determining the regulatory tone in a particular environment, and deciding whether PBR is more suitable than RBR in a particular country circumstance, depends on the standards applied by the regulated industry in: monitoring itself, ensuring that all players in the industry conform to rules that protect the reputation and integrity of that industry; and ensuring that the best global standards of corporate ethics and governance are applied by all players.
15. PBR is particularly well suited to the regulation of securities markets, which regulators that are RBR driven (such as in the US) have now explicitly recognized.
16. PBR does not mean lax regulation and supervision. Compliance under PBR depends as much on the spirit as the letter of the law. For that reason, compliance with PBR is different and more demanding than the "checkbox" compliance under RBR.
17. Violation of rigid but specific rules is much easier to establish than broader principles that are more open to subjective interpretation.
18. PBR requires greater knowledge on the part of regulators, an obligation to remain up to date with changes in rapidly evolving markets, as well as more accountability and responsibility to be exercised by supervisors in exercising judgments than RBR which focuses too much on the use of detailed checklists for compliance assessment.

total amount of its share capital and free reserves. This restriction is archaic. It needs to be removed, particularly for listed companies where mature corporate governance processes are in place. At the minimum, this restriction needs to be rephrased to make a link to the share capital and free reserves of the consolidated balance sheet.

D. Restrictions on intra-group transactions. The ultimate goal of a holding company structure is to support listing and running a corporate headquarters for a set of finance companies, each of which complies with the requirement of a separate regulator. The ultimate objective is to create a virtual financial firm that spans the financial services universe. However, Section 297 of the Companies Act constrains the utilisation of the services of any group company by another group company. When group companies have a common directorship, prior approval of the central government is required prior to availing such services. This requirement needs to be reconsidered in a modern corporate governance environment.

2.2. Reforms in financial system regulatory architecture

One important source of segmentation in Indian finance is the turf separation created by having multiple regulators. Reforms to regulatory architecture could be undertaken to mitigate these problems. India needs to choose between two paths. One is to consolidate down to four regulators covering finance with one each for: (a) ***banking*** with a regulator separate from the monetary authority; (b) ***capital markets***, with a merger of securities markets functions on the fixed income, currency and commodity markets into a single securities and derivatives market regulator; (c) ***pensions*** with the consolidation of

Box 11.4: *The politics of US regulatory architecture*

In the US, regulation of all derivatives – financial or commodities – is placed under one agency (the CFTC). Regulation of financial spot markets is under another (the SEC). This separation is derived from history and sustained by political economy.

The CFTC is overseen by the House and Senate Agricultural Committees, owing to the historical origins of the CFTC. In 1974, when the agency was created, futures trading was synonymous with agricultural commodity futures trading. That world is, of course, long gone; US derivatives exchanges trade every manner of derivatives imaginable including currencies, interest rates, energy, weather, *etc.*

The members of the House and Senate Agricultural Committees tend to obtain significant political funding from the derivatives exchanges. The Chicago exchanges in general, and the Chicago Mercantile Exchange in particular, are top donors. In the 2006 election cycle in the US, four exchanges appear on the list of the top 20 securities industry donors. All but one of the four are futures exchanges. The CME has been on the top 20 list for the last three election cycles.

Box 11.5: *Costs of compartmentalisation, and benefits of unification, in the 'exchange ecosystem'*

	Segmented model				Unified model
	Equity	Fixed income	Currency	Commodities	
Exchange	NSE, BSE	NDS, Clearcorp Dealing Systems	Clearcorp Dealing Systems, Reuters, IBS	NCDEX, MCX, NMCE *etc.*	All 8–10 exchanges would compete in trading all products. (This assumes NDS will be put out as one more exchange).
Clearing corporation	NSCC, BSE Clearing House	CCIL	CCIL	None	All three clearing corporations would compete in offering clearing services for all products
Depository	NSDL, CDSL	SGL	n.a.	NSDL	All three depositories would compete for all demat services. (This assumes that SGL will be put out as one more depository).
	Problems: Lack of competition, lack of economies of scale, lack of economies of scope. Conflicts of interest owing to functions held within the State at NDS and SGL. Heightened costs for financial firms.				Benefits: More competition, economies of scope and scale for both exchange institutions and member firms. Improved functioning of NDS, SGL and the State, owing to elimination of conflicts of interest.

pension regulation into a single pensions regulator; and (d) the ***insurance*** regulator.[2] Such a quartet might reduce the extant degree of segmentation and regulatory turf protection in Indian finance; but it would not eliminate them.

Alternatively, India could choose to integrate all financial regulation into a single FSA-style agency. The experience of London suggests that that IFS provision is encouraged by the unification of all financial regulation into the FSA. The principle of the FSA is that it is able to take a complete view of all activities of all finance companies and a holistic view of trends in financial market development. At the same time, there are problems of accountability and governance as well as regulatory monopoly associated with creating an FSA-style agency.

[2]While the PFRDA is not yet a statutory regulator, the present direction of policy thinking in the field of pensions envisages such a role for it (Shah and Patel, 2005).

2.3. Shift away from "entity-based regulation" towards domain based regulation

Until an FSA-style agency comes about, care needs to be taken in identifying rules that induce segmentation in Indian finance and removing them. For India to succeed in IFS provision, it has to be understood that the end goal is for India to have efficient, globally competitive financial firms which are able to do what is needed to compete effectively in all IFS markets. The goal is not to make regulatory life less complicated by maintaining the tidy status quo of segmented financial firms that fall neatly within current regulatory domains, and are easy to control, supervise and regulate. This requires, for example, treating a 'primary dealership' as one of the many business activities of a financial firm, and not requiring that standalone firms be created which do nothing but primary dealership. The strategy for regulation needs to be one

where the banking regulator regulates the business of banking, but does not regulate all the activities of a financial firm that chooses to call itself a "bank".

2.4. Organisation of the asset management industry

The very nature of the asset management industry enables large economies of scale to be captured. The costs of managing a bond portfolio of Rs. 1 trillion are not a thousand times larger than those of managing a bond portfolio of Rs. 1 billion. They may not even be ten times larger. Hence, when a firm manages a larger quantum of assets, it is able to quote lower prices when expressed as basis points of assets under management (AUM). As an example, in the world market, the price for index fund management for $1 billion of assets is roughly 1 basis point or 0.01%. At present in India, there is no index fund with a size of $1 billion, and hence index funds in India cost much more than 1 basis point.

Asset management functions are performed in almost every sub-segment of finance: banking, insurance, pensions, mutual funds, hedge funds, *etc.* The fragmentation of finance owing to regulatory architecture induces huge diseconomies of scale in asset management. That will hamper the competitiveness of Indian firms in an international setting.

Considerable progress can be made on this problem by separating out the 'front end' through which assets are sourced for management, from the back-end 'factory' where assets are managed. The front ends embed specific contractual structures, and regulations, such as insurance companies as opposed to mutual funds. However, the task of fund management that takes place in each of these firms is done in the same kind of factory. The difference between a mutual fund and a pension fund lies in the front-end, not in actual asset management.

This suggests the creation of a new industry of Asset Management Companies (AMCs) that are ***wholesale*** fund managers. This industry should be regulated by SEBI. The customers of AMCs might be restricted to wholesale customers who put up a minimum of (say) Rs. 100 million (or Rs. 10 crores or US$ 2.25 million equivalent) for management. A small set of professional trustee companies – perhaps three to five – should supply supervisory functions over an industry composed of perhaps 50–200 AMCs.

Once this industry is in place, it should be possible for banks, insurance companies, mutual funds, hedge funds, FIIs, pension funds, EPFO, *etc.* to outsource their asset management to one or more of these companies. What is envisaged, of course, is a market-driven process. There should be no compulsion that an insurance company must outsource fund management to an AMC. However, any regulatory barriers that impede outsourcing should be removed, so that the in-house versus outsourcing decision is made by every financial firm in India on the grounds of pure economic efficiency.

It is important to maintain a distinction between the regulatory structure that applies to an insurance company and the regulatory structure that applies for the wholesale AMC. The insurance regulator has a legitimate focus on the risk profile of the portfolio of the insurance company. However, the relationship between the AMC and the insurance company has no link to the complex obligations of the insurance company.

As an example, an insurance company might place Rs. 1 billion with an AMC for managing an equity index fund. The regulatory focus on the AMC would then be restricted to verifying that the index fund is being correctly managed. As an example, in a mutual fund setting, the costs associated with retail investor protection should be concentrated into the *mutual fund*. When the MF outsources to an AMC, this contract should be struck at the low prices seen in wholesale fund management, and the burden of regulation associated with retail investor protection should not fall upon the AMC .

With such a structure, wholesale AMCs could achieve significant economies of scale by tapping into assets from many institutional funding sources. In such an environment, when an insurance company evaluates the decision of managing assets internally, as opposed to outsourcing that

activity, it is likely to find that the charges of the wholesale AMC are much lower than the costs of internal asset management. This would encourage the outsourcing of assets for management from a large number of financial firms to save their own costs and achieve economies of scale in the AMC industry. Such a move would immediately make asset management in India globally competitive. Asset management companies in India with over $5 billion in assets under management would be cost-efficient by the standards of the global money management industry. But, for that to happen, appropriate institutional structures for wholesale AMCs would need to be created and economies of scale captured in the domestic market before such services could be globalised.

3. Creating an environment conducive to exit

As argued above, the foundation of competition policy is a ceaseless process of creative destruction, where every year, some financial firms fail and exit from the business, while new financial firms enter into the business every year. This ceaseless churning appears messy since newspaper headlines dwell on firm failure. However, it is the only way to achieve a globally competitive financial sector.

This requires a corresponding paradigm shift on the attitude towards both entry and exit. Financial regulators in India today are often fearful of exit. The death of a financial firm is seen as a failure of the financial governance regime. This attitude needs to shift towards an approach where the death of financial firms is seen as proof that a properly competitive environment is actually in place.

There is ample international experience on how a sound approach towards exit can be constructed. It comprises the following key elements:

1. Regulatory concerns about the failure of financial firms are focused only on banking, insurance and defined benefit pensions. In these areas, a framework of deposit insurance – with sound pricing of the insurance and administration in a way that avoids moral hazard – is of the essence. This needs to be coupled with a prompt corrective action (PCA) framework, where strictures are placed upon weak firms well before failure; such as a prohibition on accepting new business when underlying risk capital is too low. Listing is a powerful tool through which stock market speculators monitor firms, and produce daily estimates of their failure probabilities. A policy of requiring listing, and the establishment of procedures within regulators of monitoring stock prices, would help generate early warnings about distress based on which PCA can be taken.
2. In the securities markets, clearing corporations which manage counterparty risk are a powerful tool for preventing firm failure from having systemic repercussions. India has made excellent progress through the establishment of the National Securities Clearing Corporation (NSCC) and the Clearing Corporation of India (CCI). The scope of these institutions, and the competitive market structure of the clearing corporation business, need to be steadily extended.
3. A host of sophisticated finance activities can be encouraged under firms organised like hedge funds, where customers are restricted to sophisticated investors. Once this is done, the death of such firms imposes no political problems upon the government.

4. Retail vs. wholesale markets

Financial regulators around the world are concerned about investor protection of "small households". Ordinary households lack the specialised financial knowledge or incentive to understand complex financial products that might be mis-sold or embed dubious practices encoded in fine print. If the regulator does not protect the interests of ordinary households, then the flow of savings from millions of households into modern finance will not take place. This legitimate concern induces regulators to be particularly cautious before permitting

products to be sold to retail investors. This, in turn, induces a bias toward caution and conservatism and slows down innovation.

This problem has traditionally been seen as a difficult trade-off faced by the regulator. On one hand, financial innovation produces superior products for end-consumers. Yet, along the way, new products need to be screened carefully by the authorities to avoid episodes where households are defrauded and bolster public confidence in modern finance. One way of dealing with this issue, and fostering innovation without sacrificing the protection of small investors, is to cultivate a separate policy stance for sophisticated 'wholesale' players in the financial markets who do not have the same knowledge deficits as retail investors and do not need the same degree of protection. In India, a threshold of Rs.1 crore (or Rs.10 million) might be appropriate in defining a 'wholesale' transaction. Once this is done, in a broad range of settings, the stance of regulators should be to permit a free flow of innovation.

The best example of this approach is the hedge fund. Mutual funds are specifically designed for retail investors and they are regulated and supervised intensively. This level of scrutiny imposes costs of compliance and opportunity cost of trading strategies which are prohibited by the government. The hedge fund is the unregulated alternative to the mutual fund. But it can be restricted to deal only with customers who put up more than Rs.10 million of assets for money management. The argument is that any customer who has more than Rs.10 million of assets under management with a hedge fund has the knowledge and capability to understand what the hedge fund manager is doing before investing in it. The government does not need to protect such a customer. Once such a separation is created between mutual funds and hedge funds, there will be healthy competition in the capital market. Large investors will have a choice between mutual funds and hedge funds. If the benefits of regulation outweigh the costs, then large investors will continue to patronise mutual funds. If the costs of regulation of mutual funds are larger than the consequent benefits, then large investors will shift to hedge funds. The economy would then benefit from a low cost organisation of money management and from increased competition.

Hedge funds are appealing when it comes to exit in the event of failure. If a money manager such as a mutual fund has a large number of small retail customers, then the government inevitably gets involved in the resolution of failure. In contrast, hedge funds will have only a small number of wealthy customers. That makes it politically feasible for the government to watch impassively when a hedge fund fails. The hedge fund manager goes out of business and a few rich customers get hurt. Government is not obliged to intervene on their behalf and no issue of public interest policy arises. Under such a framework – that distinguishes between the capabilities and interests of wholesale vs. retail investors – the principle of *caveat emptor* applies to the former and strong regulatory safeguards protect the latter permitting financial markets to be regulated in a manner that encourages aggressive competition, with free entry and exit of different kinds of financial firms while protecting those that need protection. Another well-known recent example where 'wholesale-retail' differentiation has been successfully applied is in the exchange industry in the US. There the CFTC has eased the entry criteria and softened considerably the regulatory regime for exchanges in which only large financial firms, and not small individual investors or ordinary households, are permitted to participate. This two-track approach makes entry possible for a range of internet-oriented start-ups which compete against the established exchanges, without needing to incur all the costs and particularly the regulatory burdens associated with the established exchanges.

A fast-paced, globally competitive financial sector, in which rapid innovation occurs, can be a useful laboratory where new products and services can be quickly tested in wholesale markets restricted to transaction sizes of at least Rs.10 million. Successful ideas from such tests can later be approved for the retail market by the

regulator. From an IFS perspective, almost all IFS transactions are likely to be bigger than Rs.10 million. Hence, a rapid pace of innovation in ***wholesale*** markets is quite consistent with a focus on export of IFS. But this approach has an important downside, in the context of organised arms-length financial markets, where secondary market liquidity is formed by pooling millions of orders, small and large. The fragmentation of liquidity between segregated retail and wholesale markets would reduce liquidity.

India's key strength – *i.e.*, its vast retail market – will not be able to play in areas where retail participation is prevented. Hence, while this wholesale versus retail approach has merit in some areas such as money management, there is a need of caution when it comes to the securities markets, where unification of all orders into a single order book yields maximum liquidity and thus international competitiveness.

5. The role of exchange-traded vs. OTC derivatives in the BCD nexus

Derivatives can be traded on an exchange or bilaterally negotiated on the 'over the counter' (OTC) market. Trading on exchange requires standardised 'plain vanilla' products, is anonymous, utilises a clearing corporation to eliminate credit risk, and is fully transparent. The trading computer ensures that each buy order is matched with the lowest priced sell order. OTC trading permits unlimited flexibility in the contract, lacks anonymity, generally involves counterparty credit risk, and is generally non-transparent. There is never a certainty that one privately negotiated purchase was contracted at the best price available on the non-transparent market.

Currency futures were the first situation where the idea of the exchange-traded futures market was applied to a financial underlying. For many years, currency futures were not particularly successful when compared with OTC currency forwards which dovetailed well with the primarily inter-bank character of currency trading. With interest-rate derivatives, while exchange-traded interest rate derivatives are enormous worldwide, they continue to be smaller than their OTC counterparts.

Despite these international empirical regularities, the following seven factors suggest a greater role for exchange-traded derivatives in an Indian IFC:

1. The present OTC market in India largely trades plain vanilla products. For trading plain vanilla products, the exchange traded environment induces transparency and liquidity at no cost in flexibility. Indian currency forward trading is already halfway to the exchange-traded framework, with the Clearing Corporation of India Ltd (CCIL) performing the services of a central counterparty. The only further step required in shifting from a forward market to a futures market is the introduction of transparent trading at an exchange venue.
2. Even though the global currency futures market is small when compared with the global currency forward market, recent research has shown that it plays a disproportionate role in price discovery. Rosenberg and Traub (2006) find that the currency futures market might contribute as much as 85% of the price discovery. This reflects the role of transparency in price formation. Traders who might place orders on the opaque OTC market find it advantageous to constantly watch the transparent futures market. A transparent trading venue seems to matter disproportionately for overall price discovery, even if the turnover at this public marketplace is relatively small.

   Similar evidence for the role of exchange-traded futures on the interest rate market is found in Mizrach and Neely (2005) who estimate that over 50% of the price discovery on the US long bond market takes place in the exchange-traded product in the period after 1998.
3. Exchange-traded derivatives have become particularly important in the new world of algorithmic trading and internet trading, both of which dovetail

better with electronic exchange-traded products. The new order flow that is created owing to these two channels tends to be concentrated on exchange-traded products.

4. In an environment where India's regulatory and supervisory capacity in the derivatives market is still nascent but evolving, exchange-traded markets pose a simpler problem with full transparency, with standardised contracts being traded, and where credit risk is removed by the clearing corporation. In comparison, sound regulation and supervision of more opaque OTC markets makes greater demands upon regulation and governance.

   In particular, public sector financial firms are vulnerable to questions about lowest-price procurement when a transaction takes place on an OTC market. In contrast, when a computer does order-matching, lowest-price execution is guaranteed. As long as public sector financial firms are important in India, an emphasis on exchange-traded derivatives will elicit greater participation.

5. Apart from filling a major gap in the structure of its financial system, another key reason for building a BCD nexus in India is to enter the export market for IFS: i.e. attract global order flow into: (a) the INR yield curve; (b) trades in contracts of the INR vs. other global currencies; and (c) credit risk management products trading in India. The clubby world of the global forward market – where counterparties know each other, face credit risk from each other, and have conversations on telephone – will be more difficult for India to break into, given that these human relationships are well established at the three established GFCs and other IFCs like Tokyo, Frankfurt and Paris.

   It is more feasible for India to compete in the world market for order flow into exchange-traded derivatives. This is a more meritocratic market, where transaction charges and impact cost are all that matters; being plugged into certain human networks matters less. As an example, it appears more feasible to attract users of currency futures and currency forwards trading all over the world to send orders electronically into an order-matching system operating in Mumbai, rather than seeking to obtain market share in the global OTC market.

6. Exchange-traded derivatives fit well with non-institutional customers, who are not able to access the telephone networks through which OTC trading takes place. This issue is not unique to India: e.g. in Japan, individuals have come to play a substantial role in currency trading in recent years, through the currency futures market.[3] Given the importance of non-institutional players in Indian finance, an emphasis on exchange-traded derivatives will help in harnessing their participation and thus liquidity.

7. Finally, exchange-traded derivatives trading plays to India's strengths in running exchange institutions. NSE, BSE, NSCC, CCIL are a strong set of institutions, and can compete in the global market for exchange-traded derivatives.

Some of these seven issues are unique to India. However, some of these issues are presently at work in reshaping the international derivatives market. As a consequence, currency futures have experienced considerable growth. BIS data shows currency futures turnover has grown from $2.8 trillion in Q3 2005 to $4 trillion in Q2 2006.

India needs both exchange-traded derivatives and OTC derivatives. However, these arguments suggest that particularly in the early years, a special focus should be placed on obtaining world-class liquidity on the exchange platform. This is where India's IFS export opportunity lies, and this is the 'raw material' using which OTC derivatives are made. **The right sequencing is to first have a liquid electronic trading screen, after which an OTC market can spring up based**

[3]On the subject of individuals in the Japanese currency futures market, see `http://tinyurl.com/ycgbm2` on the web.

on utilisation of the prices and liquidity produced on this screen.

6. Regulatory impact assessments

In the foreseeable future, India could be headed for a four-way separation of financial regulation, with separate agencies performing regulatory and supervisory functions for Banking, Securities, Insurance, and Pensions. The merits of a larger all-inclusive unification – such as emulating the UK-FSA – can be debated *ad nauseam* in the Indian context. The HPEC would prefer not to trigger or indulge in that debate as it diverts from its main concern – *i.e.*, that of establishing a successful IFC in Mumbai as swiftly as possible. Regardless of whether FSA-style unification is attempted or another form of regulatory architecture is applied, an IFC in Mumbai will still require world-class financial regulation and supervision (in terms of policy, approach, attitude and practice) in either case.

One tool for improving the quality of regulatory agencies is a periodic process of "Regulatory Impact Assessments" (RIA). These are now commonplace in OECD countries. Each RIA is essentially a cost-benefit analysis carried out independently every 3–5 years to review regulatory architecture and implementation. The term 'architecture' describes the boundaries of the agency, its legal foundations, and its mandate, while the term 'implementation' refers to how the agency translates these goals and conceptual framework into successful, globally competitive regulation and supervision. Each RIA needs periodically to compare Mumbai against peer IFCs, and examine how architecture and implementation can be evolved so as to improve India's ability to produce IFS for the global market.

7. Strengthening the legal system supporting an IFC

The legal system comprises legislature, laws, courts and judges. In a finance setting with independent regulators, an appeals mechanism is required for all actions of the regulator. The difficulties confronted by the Indian legal system in tackling sophisticated IFS are well known. The system lacks specialised domain knowledge. Legal processes are drawn out over excessively elongated periods of time. Recent reports indicate that over 30 million cases are currently pending resolution in India.

From an IFC perspective, the most useful strategy may be the creation of specialised courts that combine (a) highly experienced arbitrators equipped with specific IFS domain knowledge, and (b) streamlined workflow leading to minimal delays. Extending the scope of the present Securities Appellate Tribunal (SAT) might be a useful way of addressing these concerns. SAT already has judicial capacity with specialised domain knowledge in securities markets. It processes cases with obvious efficiency at an impressive pace. Going beyond SEBI, there is a possibility of utilising SAT for processing appeals against FMC and PFRDA also.

Applying the same logic, SAT's scope and remit could be extended to covering IFS as well with SAT adding an IFS Appeals Tribunal (IFSAT) to its extant role. SAT could have its remit expanded to deal with appeals not just for capital markets transactions but cover banking, securities, insurance and pensions as well. A larger role for arbitration would help strengthen the legal system[4]. Arbitration is a key mechanism through which faster and superior contract enforcement can be achieved between private agents who have disputes about private contracts.

From the viewpoint of a global participant utilising Indian financial services, legal risk induces a risk premium; it reduces the competitiveness of India as a venue for IFS production. Effective arbitration procedures give private agents a way to bypass the constraints of the courts. The Indian Arbitration and Conciliation Act was passed in 1996, with the intent of enabling

[4]The ideas and facts here greatly draws upon "What next for Indian arbitration?" by A. Ray and D. Sabharwal, of the International Arbitration Practice Group at White & Case, London, which appeared in Economic Times, 29 August 2006.

and strengthening this channel[5]. However, two decisions of the Supreme Court have dealt severe blows to the 1996 Act: (1) the Oil & Natural Gas Corporation v Saw Pipes (2003) 5 SCC 705[3]3 [6] and (2) SBP& Co. v Patel Engineering (2005) 8 SCC 618 [7].

As a response to these problems, the Arbitration and Conciliation (Amendment) Bill, 2003, currently pending before Parliament, proposes to introduce a new section that would allow an award to be set aside "where there is an error apparent on the face of the arbitration award giving rise to a substantial question of law". Although this new ground for challenge is narrower in definition than the Saw Pipes ruling, it still affords losing parties an opportunity to approach the courts in an attempt to second-guess arbitral tribunals. This could lead to a position not dissimilar to that under the 1940 Act and complete a full circle for Indian arbitration. The problems of Patel Engineering case prima facie, do not appear to have been addressed in this Bill.

The last (but not least) component of the legal system is lawyers. At present, there are some significant weaknesses in the development of legal skills by the present Indian education system, particularly when it comes to the legal aspects of sophisticated finance. The internationalisation of Indian finance will induce new kinds of pressures upon the legal fraternity. On one hand, legal skills will be demanded in global finance that go well beyond the skills developed in dealing with Indian financial law. In addition, many global financial firms might feel comfortable utilising the services of the same global law firms they use in other IFCs when doing certain transactions out of India. This is perhaps analogous to FIIs favouring foreign brokerage firms when operating in India.

This suggests that India needs to open up on the issue of foreign law firms operating in India. Such measures will help simultaneously in three directions. It will improve the legal knowledge available in the country, particularly on the interfaces between finance and law. It will help global financial firms feel comfortable with operating in Mumbai, since they would find familiar global legal firms. It would have the same impact on improving the skills, technology and competitiveness of the Indian legal services industry that permitting FDI in manufacturing had on Indian industrial firms.

Developments along these lines are already taking place. On 6th October, 2006, the Minister for Commerce and Industry said that a panel of lawyers had been constituted under the UK-India Joint Economic and Trade Committee (JETCO) to work with a similar group in the UK to deliberate on opening up the legal services sector.

[5]The 1996 Act was designed primarily to implement the UNCITRAL Model Law on International Commercial Arbitration and create a pro-arbitration legal regime in India. Prior to its enactment, there was widespread discontent over the excessive judicial intervention allowed by its predecessor, the 1940 Act. The 1996 Act attempted to rectify this problem by narrowing the basis on which awards could be challenged, thereby minimising the supervisory role of courts, ensuring finality of arbitral awards and expediting the arbitration process.

[6]Saw Pipes addressed a challenge to an Indian arbitral award on the ground that it was "in conflict with the public policy of India". Despite precedents suggesting that "public policy" be interpreted in a restrictive manner and that a breach of "public policy" involves something more than a mere violation of Indian law, the Court interpreted public policy in the broadest terms possible. The Court held that any arbitral award which violates Indian statutory provisions is "patently illegal" and contrary to "public policy". By equating "patent illegality" to an "error of law", the Court effectively paved the way for losing parties in the arbitral process to have their day in Indian courts on the basis of any alleged contraventions of Indian law, thereby resurrecting the potentially limitless judicial review which the 1996 Act was designed to eliminate.

[7]In Patel Engineering, the Supreme Court subsequently sanctioned further court intervention in the arbitral process. The case concerned the appointment of an arbitrator by the Chief Justice in circumstances where the parties' chosen method for constituting the tribunal had failed. The Court held that the Chief Justice , while discharging this function, is entitled to adjudicate on contentious preliminary issues such as the existence of a valid arbitration agreement and is entitled to call for evidence to resolve jurisdictional issues. Significantly, the Court ruled that the Chief Justice's findings on these preliminary issues would be final and binding on the arbitral tribunal, making a mockery of the well-established principle of Kompetenz-Kompetenz – the power of an arbitral tribunal to determine its own jurisdiction – enshrined in section 16 of the 1996 Act. This encourages parties to sabotage the appointment process of arbitrators, make spurious arguments about preliminary issues and use evidentiary hearings in courts to delay arbitral proceedings.

Tax policy for an IFC in Mumbai

chapter 12

1. Does India need an IFC or a Tax Haven?

Creating an IFC in Mumbai – that offers IFS as competitively and efficiently as other established IFCs– will induce lobbying pressure on the authorities, from service providers as well as global investors, to provide zero or near-zero taxation of the IFS offered. Such pressures are based on three arguments: (a) the desirability of creating a tax haven explicitly in order to attract a greater proportion of global IFS flows for servicing through India; (b) the 'obvious' need for providing *temporary* fiscal subsidies aimed at kick-starting a desirable export services industry using *infant industry* arguments; or, more legitimately, (c) achieving greater competitiveness with other established and emergent/aspirant IFCs.

In that connection, proponents for total tax-exemption of an IFC to encourage IFS exports – or for exemption of at least some IFS products and services – often point to the success of the Indian IT export services industry since 1990. They argue that explosive growth in IT export services occurred at least in part because of (a) benign Government neglect, resulting in few opportunities for interference and petty rent seeking; and (b) initially favourable tax treatment – which, of course, the IT industry (along with others) is attempting to perpetuate through devices like SEZs.

In the view of the HPEC– which is in favour of global competitiveness – these pressures have no legitimacy in an effort to create an IFC in Mumbai. They should be resisted at municipal, state and central levels. A country like India does not need a tax haven. As has been argued before, India is not a small enclave or island economy, with limited options for economic diversification and growth.

Moreover, the current global climate (especially in OECD countries but also in countries like India) is opposed to 'tax competition' or, more euphemistically, 'harmful tax practices'.[1] In particular, the OECD disfavours 'dual tax regimes' offered by small countries to create tax-arbitrage to the detriment of its member countries. They object to a non-OECD country applying a 'normal' tax regime to its own citizens/residents, while offering non-residents a low-tax or no-tax-regime

[1] GOI should recognise, however, that this is a self-serving characterisation, contrived to permit governments of rich (but uncompetitive) OECD countries to maintain egregiously high tax regimes that support wasteful public expenditure. Such tax-spend policies enable too large an intermediation role to be played by these governments (particularly in Europe) in transferring – opaquely and unaccountably – real income from one part of the middle-class (e.g. the healthy, young working adults, or the childless) to another (families with children, those on the dole, those who smoke/drink excessively, retirees who have not saved enough) – in so-called 'public service' domains that are more efficiently served by private markets. Public revenues (and expenditures) in many north European countries now pre-empt over 50–60% of GDP. They finance unsustainable, failing public health, education and welfare systems. These nations are becoming uncompetitive and losing jobs – indeed entire industries – to poorer (therefore lower-cost, more competitive) countries like China (in manufacturing) and India (in services and manufacturing as well). Under domestic political pressure, OECD governments (particularly in Europe) are now engaging in a cartelised form of 'protectionism' to insulate themselves from competition by developing countries that have lower public revenues and expenditures of the region of 20% of GDP in order to encourage savings, investment, growth, markets and competitiveness. Yet the new accession countries to the EU have been introducing low flat tax regimes that are proving simpler, more attractive and more efficient. Poorer countries must eventually attain levels of per capita income and standards of living now enjoyed in the OECD world. In an efficient, equitable, open global economy, average per-capita incomes should converge gradually. If it takes tax competition to achieve that happy state, then that is how it should be. GOI should not accept the anti-tax-competition argument as having any intellectual legitimacy.

at the same time. But the OECD cannot oppose or punish (via sanctions or black-listing) an emirate like Dubai offering the same uniform 'low-tax' or 'no-tax' regime to residents and non-residents alike. Doing so would violate a key tenet of international law: *i.e.*, the sovereign right of countries to determine their own fiscal policies, as long as they do not create discriminatory dual regimes aimed solely at tax-arbitrage, or apply their tax policies in a way that affects adversely the fiscal rights of other countries. Besides, apart from issues created by artificial tax-arbitrage, an emirate in the Gulf may not need to levy any personal income or corporate taxes, because of a surplus of public income derived from sources such as oil/gas revenues or the sale of land, or whatever.

In such a climate, creating a tax haven would be detrimental for an IFC in Mumbai. Besides as an observer (and potential new member) of the Financial Action Task Force (FATF), the Indian government can hardly countenance the creation of yet another tax-haven OFC. Doing so would trivialise the two main arguments for having an IFC in the first place – *i.e.*, (i) to meet India's (and Asia's) legitimate and rapidly growing IFS needs as one of the world's largest emerging trading and investing economies; and (ii) to derive significant service export revenues from IFS, in which India has natural comparative/competitive advantages for capturing significant global market share. A tax haven would compromise the functioning and credibility of an Indian IFC in the eyes of the world. That is another reason why the Committee would advise against locating an IFC in Mumbai (or anywhere else in India) in a SEZ.

Also, experience suggests that *infant industry* arguments in India are dangerous. Prior to 1991, over-susceptibility to that argument resulted in India nurturing 50-year old infants in all its industries other than IT.

Many offshore financial centres in small landlocked and island countries chose to become tax havens – for multinational corporations as well as wealthy private individuals and trusts – to create a tax arbitrage advantage for themselves in attracting international financial business (*i.e.*, transfer pricing, tax management, and avoidance of high tax in OECD countries by their residents). There are over 65 such centres around the world (see Box 12.1) in landlocked principalities and micro-countries such as Andorra, Botswana, Monaco, Luxembourg, Lichtenstein, etc. as well as in island economies in: the north Atlantic vicinity (the Channel Islands, Bermuda, Isle of Man); in the Caribbean (where there are over fifteen OFCs, the largest being The Bahamas, The Cayman Islands, Barbados and the Netherlands Antilles); as well as in the Indian Ocean (Seychelles, and Mauritius) and Pacific (*e.g.*, Vanuatu).

OFCs derive revenues from the legal, tax and accounting services offered to firms that seek to tax-domicile, or book transactions, in these jurisdictions to avail of near-zero tax rates. In the relative context of their economies (e.g. Mauritius has a GDP of US$ 5.5 billion or less than the sales of the Reliance Group) such limited IFS revenues can be quite large (>5% of GNI). But such a strategy is inappropriate for India. An IFC in Mumbai should aim to achieve not just the booking of IFS transactions but the actual provision of the product/service underlying them. India's strength lies in its human and technological capacity to provide tradable financial services and capture the value added on a significant scale by world standards; not just to the small extent of routine legal, tax, audit or accounting services offered in a tax haven. As an IFC, Mumbai should therefore aspire to become like London or New York; a venue where large-scale IFS production and exports takes place for the global market rather than being content as a mere transactions-booking centre and artificial company registry.

Many financial transactions in a successful IFC, such as bond issues, securitisation products and derivatives contracts, involve embarking on a contractual structure with consequent cash-flows taking place as per contract for the coming 20 or even 50 years. In order to give the private sector confidence in undertaking such transactions, India needs to establish a sound tax framework

Box 12.1: *Countries, Territories, and Jurisdictions with Offshore Financial Centres*

Africa	Asia and Pacific	Europe	Middle East	Western Hemisphere
Djibouti	Cook Islands (FSF)	Andorra (FSF)	Bahrain (J) (OG) (FSF)	Anguilla (FSF)
Liberia (J)	Guam	Campione	Israel	Antigua (FSF)
Mauritius (OG) (FSF)	Hong Kong, SAR (J) (OG) (FSF)	Cyprus (OG) (FSF)	Lebanon (J) (OG) (FSF)	Aruba (J) (OG) (FSF)
Seychelles (FSF)	Japan[1]	Dublin, Ireland (FSF)		Bahamas (J) (OG) (FSF)
Tangier	Labuan, Malaysia (FSF)	Gibraltar (OG) (FSF)		Barbados (J) (OG) (FSF)
	Macao, SAR (FSF)	Guernsey (OG) (FSF)		Belize (FSF)
	Marianas	Isle of Man (OG) (FSF)		Bermuda (J) (OG) (FSF)
	Marshall Islands (FSF)	Jersey (OG) (FSF)		British Virgin Islands (FSF)
	Micronesia	Liechtenstein (FSF)		Cayman Islands (J) (OG) (FSF)
	Nauru (FSF)	London, UK		Costa Rica (FSF)
	Niue (FSF)	Luxembourg (FSF)		Dominica
	Philippines	Madeira		Grenada
	Singapore[2] (J) (OG) (FSF)	Malta (OG) (FSF)		Montserrat
	Tahiti	Monaco (FSF)		Netherlands Antilles (J) (OG) (FSF)
	Thailand[3]	Netherlands		Panama (J) (OG) (FSF)
	Vanuatu (J) (OG) (FSF)	Switzerland (FSF)		Puerto Rico
	Western Samoa (FSF)			St. Kitts and Nevis (FSF)
				St. Lucia (FSF)
				St. Vincent and Grenadines (FSF)
				Turks and Caicos Islands (FSF)
				United States[4]
				Uruguay
				West Indies (UK) (J)[5]

Source: Based on Errico and Musalem (1999), IMF Working Paper WP/99/5 (unless otherwise indicated).

Legenda:
(J) = Joint BIS-IMF-OECD-World Bank Statistics on External Debt.
(OG) = Offshore Group of Banking Supervisors.
(FSF) = Financial Stability Forum's Working Group on Offshore Financial Centers (Press Release of May 26, 2000).
[1] Japanese Offshore Market (JOM).
[2] Asian Currency Units (ACUs).
[3] Bangkok International Banking Facilities (BIBFs).
[4] US International Banking Facilities (IBFs).
[5] Includes Virgin Islands, Anguilla, and Monserrat.

which will be sustained in the long term. An artificial 'infant industry' argument based on tax breaks is not credible in the eyes of the private sector, for it is clear that once the IFC takes hold, the tax code will be changed. This very uncertainty about future tax treatment will serve to deter transactions from taking place in Mumbai.

Through the proliferation of ICT technologies, it is now increasingly feasible to decouple the booking of an IFS transaction from where it is produced. Tax domiciles can be far removed from locations where real IFS value is added. To the extent that this takes place, India will not be *disadvantaged* by having a rational taxation regime governing its IFC. Global customers will still buy genuine IFS from India (providing those IFS are of the same quality, but provided at lower cost, with greater efficiency, and better customer service) even if they might prefer – for global tax management reasons – to book transactions in tax havens around the world.

There are deeper problems with an 'industrial policy' of government supporting the financial industry or IFS via tax incentives. If the government 'encourages' financial firms through lower tax rates, this would implicitly constitute a subsidy from the general taxpayer to shareholders and workers in financial firms. Such a fiscal subsidy for an IFC is neither necessary nor justifiable. More importantly, if financial firms in a Mumbai-based IFC were provided with a tax advantage over firms undertaking other types of activity, that would encourage less competitive firms (*i.e.*, smaller, weaker

and insufficiently capitalised) to provide IFS. It would also provide an incentive for other types of services firms to camouflage themselves as financial firms. An ecosystem with financial firms propped up by tax incentives and exemptions is not one that would be populated by the most capable, efficient and innovative financial firms nor would it necessarily attract global financial firms to locate in such a IFC.

But, it should be emphasised that the argument against tax exemptions, or any form of preferential tax treatment in an IFC, is not the same as making an argument for having a regime of generally high, complex and harmful taxes – that provide disincentives for effort, transparency, volunteerism and honesty in tax payments – being applied to the IFC either. What would be best for an Indian IFC– as well as for the rest of industrial, commercial and financial India – is a general regime of uniformly low marginal tax rates, applied universally across the board in every sector of economic activity without any exception (including agriculture and agricultural finance) with as few tax incentives, exceptions and exemptions as possible.[2] The tax regime should be simple, and structured so as to be as non-discriminatory and non-distortionary as possible; *i.e.*, across different activities, and in the tax-treatment of income derived from different sources (*e.g.*, whether trading, dividends, interest, rent, wages, partnership profits, or salaries).

2. Tax policy for Mumbai as an IFC: and, by implication, for India

By and large, the HPEC endorses fully, and urges swift implementation of all the recommendations contained in the Kelkar Committee Report (*i.e.*, *Report of the Task Force on Implementation of the Fiscal Responsibility and Budget Management Act, 2003*) that was issued in June 2004. The kind of tax regime suggested by the Kelkar Report should be applicable to the financial system (domestic and IFC) as a whole – one that provides incentives for increased output, high value-addition, and efficiency rather than for tax breaks.

It would also be the desired strategy to apply to an IFC while keeping in mind the need for flexibility to make adjustments for certain types of IFS in keeping with international norms. Such flexibility would be desirable to ensure that an IFC in Mumbai remained competitive with IFCs elsewhere. With clearer tax policies, a simpler tax regime, and consensus that such a regime would the most appropriate for the financial sector and for IFS exports, three key principles come to the fore:

1. The need for applying a modern, low but universally applicable income tax regime across all sectors and activities, and a modern low VAT to avoid the prospect of smuggling and cash transactions compromising collections.
2. Confining taxation to resident income and consumption while exempting non-residents from all direct taxes (regardless of whether or not India has DTATs with their home countries). This does not mean exempting non-residents from indirect taxes on consumption of goods/services in the country. It does mean NOT creating a special tax regime specifically for non-residents under which they could arbitrage tax liabilities against their own tax regimes.
3. Removal of all bad taxes: *i.e.*, those that

[2] In that connection it needs to be observed that inadequate prior analysis, and confused policy support (lacking full public consensus), has resulted in far too many disparate, variably-sized SEZs being approved by central and state governments, in too many fragmented locations. That has compromised the tax principle being enunciated here at the outset. It has also created opportunities for distortions to arise in piecemeal, imbalanced investment in infrastructure around the country. That reduces the prospect of economies of scale from being exploited; e.g. by fragmenting power generation across SEZs rather than having generation being determined by the needs of a particular contiguous area or geographic region. Moreover, it appears that many approved SEZs now incorporate sub-projects for speculative real estate development for residential and commercial purposes (as opposed to dedicated manufacturing or service industry use). These entirely unnecessary add-ons could compromise the financial portfolios of major financial firms lending to SEZs and to firms locating in them. That harm should not be exacerbated by extending similar tax benefits to an IFC.

lead to incentives for evasion, those that cost more to collect than yield, those that are discriminatory and distortionary, and those that create friction in the production of goods and services (*i.e.*, eliminate all transaction taxes such as stamp duties and transfer taxes on capital assets, particularly in financial transactions). As proposed in the Kelkar FRBM Task Force report, this needs to be done as part of the GST reform. The simultaneous removal of all bad taxes plus the introduction of the GST is fiscally neutral while enhancing both GDP and tax buoyancy.

For an IFC in India to be credible, tax-wise, to residents and non-residents alike, it is essential that the features, structures, rates and quantum of taxation in India should be consistent with:

(a) Optimising (not maximising) public revenue in line with the minimal financing of essential public goods/services – using a minimalist approach to defining what these should be and who should benefit from them
(b) Emphasising rapid output and high value-added growth over any other objective over the next 50 years
(c) Avoiding tax distortions, tax discrimination, tax exemptions and preferences altogether and adhering to the notion of universality
(d) Incentivising tax-payment 'volunteerism' rather than inducing tax avoidance and/or evasion by making it less expensive for taxpayers to comply instead of avoiding compliance; and
(e) Cost-effectiveness: *i.e.*, taxes should not be levied that are more expensive to collect at the margin than the amount of revenue they yield regardless of equity or social engineering concerns.

In achieving these objectives the question should be asked whether India's multi-layered political/administrative structures, at multiple levels of governance, and its traditional political/administrative practices, do not result in too many taxes being levied by too many different authorities at higher than necessary rates. The need to finance government at several levels should not be a reason to create and sustain (through inertia) a plethora of cascading and distorting taxes (such as stamp duties and octroi, which are a barrier to intra-country trade and movement of goods) with negative effects on output, efficiency and intra-country as well as international trade in goods and services.

In sum: the first issue to be emphasised in the context of a fiscal regime that would support India having an IFC– but one that has wider resonance and applicability – is that the most immediate objective in tax policy has to be to move rapidly towards a modern income tax and a modern VAT for universal applicability in India (and applied uniformly above practical thresholds). The second principle governing desired tax strategy is that no government should attempt to 'export taxes' or try to achieve extra-territoriality in the imposition of its tax regime. The incidence of a VAT should fall on domestic consumption only. With a well-designed VAT, imports are charged VAT, and exports are zero-rated, so that foreign customers of Indian goods and services do not pay VAT to the Indian government. The third principle is that bad taxes (no matter how politically attractive) lead to a weak, dysfunctional economy. They compromise fairness, growth and equity.

Once a framework of sound and low income taxes and VAT is created, the maze of distortionary taxes and exemptions that India has inherited from previous decades needs to be removed. In particular, turnover taxes matter greatly for export of IFS; their removal is directly material to the effort of India emerging as an IFC.

3. A modern income tax

At the level of broad principle, India should seek to roughly match the income tax treatment of a modern IFC such as Singapore, while avoiding the zero-tax approach of a city like Dubai. It should avoid attempting to have a dual tax regime for residents and non-residents specifically to attract IFS business.

3.1. What should the capital gains tax be?

An important debate now taking place in India that has considerable relevance for finance and IFS concerns the capital gains tax. Modern macroeconomic and public finance theories shed much light on the optimal conduct of monetary and fiscal policies. A robust result of the research literature suggests the need for low taxes on capital income (Chari and Kehoe, 2006; McCaffery, 2006). One of the foundation blocks of economic reasoning suggests that the goal of a sound fiscal system (especially in a developing country) should rely on taxing *consumption* not savings. This can be achieved by EET taxation with large permissible annual savings per person. Under such a scheme, individuals should be encouraged to save, with income and capital gains being exempt from taxation, until they chose to consume.

Thus, the path to a sound consumption tax lies in low or zero tax rates applied to capital income. Such an approach dovetails well with the export of IFS. Low or zero tax rates applied to capital gains would put India on par with many other countries that have taken such a path. But, this approach needs to be applied symmetrically to both domestic and foreign investors without creating officially sanctioned loopholes of the kind that exist in Indian tax treaties allowing special tax treatment for investors in Mauritius, Cyprus and Singapore. Many of these treaties will lose their potency in diverting tax revenues almost automatically with the removal of residual capital controls. It may be better to take that approach in dealing with the problems they appear to create than to attempt renegotiating them clause-by-clause. This overall approach to the taxation of finance would be consistent with Indian exports of IFS being rooted in the Indian financial system, and not separated into an enclave.

3.2. Mature issues in the Indian tax debate concerning finance and IFS

There are four specific areas of tax policy that influence IFS where the policy debate in India is mature and articulated in the Kelkar Report. These concern (1) tax treatment of savings, (2) taxation of asset management, (3) definitions and tax treatment of 'speculative' transactions and (4) the tax treatment of zero coupon bonds. The basic approach of the FRBM Implementation Task Force on these issues is entirely consistent with the goal of making Mumbai an Indian IFC.

From an IFS perspective, the primary priority is to bring about a liquid and efficient bond market with an arbitrage-free INR yield curve. Administered interest rates, and tax exemption provisions for particular financial products, militate against this goal. IFS exports are unlikely to materialise from India in the absence of its asset/fund management industry operating in the same way and being governed by the same policy regime as its global counterparts in other mature financial markets. That requires achieving 'neutrality' as an essential feature between 'in-sourcing' and 'outsourcing' of asset/fund management where three cases can be distinguished:

1. A firm or a person manages funds/assets
2. Funds are given to an AMC for asset management on an agency basis
3. A global AMC further subcontracts to other national/sectoral AMCs.

Tax considerations should not encourage or discourage the way in which the asset management business is organised in terms of the extent of outsourcing that takes place. As an example, corporations should have no tax-induced motivation to outsource treasury functions to mutual funds in an attempt to reduce their effective tax rates. Furthermore, tax considerations should not generate artificial differences in the relative attractiveness of alternative financial products, in the eyes of either providers or consumers of those products. As an example, an insurance company should not have to (or be allowed to) embellish an asset management product with a small actuarial component, in order to obtain superior tax treatment when compared with the same product being sold by a mutual fund or a private bank. Concessional tax treatment of certain savings instruments is particularly important insofar as it distorts price discov-

ery for the INR yield curve. The adoption of a rational tax policy in these respects is inextricably bound to having an IFC emerge in India that is viable.

3.3. LLPs as tax-efficient pass-throughs

In creating sophisticated financial products or structures the need keeps recurring for a 'corporate or partnership' structure that supports tax-efficient transmission of cash-flows coupled with specific types of financial contracts. Internationally, such a structure is provided by the Limited Liability Partnership (LLP). Examples include:

- A securitisation special purpose vehicle (SPV) can be in the form of an LLP. It would be the placeholder for a certain contractual set of obligations through which cash-flows would come into the SPV. These cash-flows would be transmitted to the holders of securities issued by the SPV. The SPV itself would need to be a tax pass-through, while the cash-flows reach their eventual beneficial owners and get taxed in their tax-domiciles. If double-taxation takes place – if the cash-flow gets taxed once at the SPV and again in the tax domicile of the owner of the security – then securitisation cannot take place.
- 'Hedge funds' are invariably structured as LLPS. The lack of an LLP structure in India hinders the development of hedge funds as an institutional investing mechanism although these funds are now the mainstays of other IFCs. In disallowing them, India is doing enormous damage to itself.

Some development work towards getting LLP structures legitimised in India has been taking place, but it is more focused on the needs of professional services firms such as lawyers or accountants. Such development needs to take into account the needs of the LLP as a key building block of sophisticated financial structures.

4. Taxation of financial transactions

At present, there are three main kinds of transactions (*i.e.*, turnover) taxes in India that are applicable to financial transactions:

- The securities transaction tax (STT) applies to some kinds of securities: *e.g.*, equity spot and derivative transactions.
- Registration duties/fees need to be paid for specific services provided by government in recording contract and deeds. The government maintains a registry of deeds in return for a fee. Government agents (called 'sub-registrars') do not verify the legal validity of documents; they focus only on the payment of the correct fee. The payment of the registration fee does not entitle the payee to a guaranteed legal title.
- Stamp duty is a tax on the value of instruments used in various transactions.

All three of these are cascading taxes; they are comparable with excise taxes in the case of manufactured and traded goods.

4.1. Taxation of transactions distorts the conduct of business

In the real economy, it is now a well accepted principle that *turnover* is an inappropriate base for taxation. When transactions are taxed, this leads to a cascading impact. The incidence of such taxes falls to a greater extent upon processes that involve several stages of production. Transaction taxes encourage vertical integration *i.e.*, they encourage transactions to occur *within* the firm (rather than between independent firms) so as to incur lower taxes. This runs contrary to a key feature of a mature market economy, where firms are specialised to focus on core competencies, and where transactions take place between firms. Transaction taxes give firms a bias in favour of some production mechanisms over others: these biases distort the organisation of production and firms.

The identical issues apply in the taxation of financial transactions. A financial firm can be thought of as buying raw materials (securities or money on its assets side) in order to produce finished goods (securities on its liabilities side). The activities of a typical financial firm consist of a set of transactions that transform risk and return in a variety of ways to meet the needs of different customers. In finance,

the trading strategy is analogous to *process technology*. Different technologies can be utilised to produce the identical product. In other words, a given set of risk/return characteristics can be produced through different trading strategies. As an example, if the goal is to produce a riskless asset with a maturity of 90 days, the different ways in which this can be done include:

1. Buy a zero-coupon government bond with a 90-day maturity
2. Buy a zero-coupon government bond with an 'n'-day maturity and rollover every 'n' days.
3. Enter into cash-and-carry arbitrage on one of many futures products.
4. Enter into put-call parity arbitrage positions using one of many options products.
5. Run an options book, and lay off risk, using delta-neutral hedging, dynamically modifying the hedge continuously so as to achieve zero risk.

These are only five examples of alternative technologies through which a riskless position with a 90-day maturity can be obtained. Numerous other 'technologies' for achieving this outcome can be designed, all of which combine underlying financial 'raw materials' through different trading strategies. Under normal circumstances, traders would decide among these different routes on the basis of commercial considerations. But, when turnover is taxed, the incidence of taxation falls disproportionately on 'technologies' that require more trading; even though they may be better options for investors to exercise. As an example, there might be a large degree of mispricing on the options market; but 'delta-neutral hedging' might be unattractive because it involves perhaps 100 times the trading volume when compared with buying a treasury bill. If transactions taxes applied, they would automatically tilt the investment decision toward sub-optimal purchase of a T-bill. A core principle of public finance is that tax policy must not modify the choice of technology by a private economic agent. Transaction taxes distort the choice of technology by financial firms. Therefore they are 'bad taxes'.

4.2. Taxing transactions in a world of IFS

Thus, in a purely domestic economy, the taxation of turnover is inappropriate because it violates every principle of sensible public finance. But the problems it creates escalate and multiply in the context of competing in global markets for IFS. Taxes on transactions force business to leave venues with effective high taxation (as well as high tax rates) and migrate to venues with low taxation (and low rates).

In the manufacturing world, the principle that *you cannot export taxes* is now well-understood. This has led to the entire sophisticated framework of VAT, where exports are zero-rated, and imports are charged VAT. Under this framework, the incidence of VAT falls only on domestic consumption. The price of all goods 'in transit' is free of VAT charged by any country. All mature market economies have eliminated all turnover taxes on goods. But, identical issues apply when it comes to the global market for IFS. It is not possible for India to impose taxes upon foreign customers of IFS produced in India: the attempt to do so will simply shift transactions away from India. **This clearly implies arguing for the removal of all taxes on transactions.**

4.3. Removal of turnover taxes in India

The removal of the Securities Transaction Tax (STT) will influence efficiency and export-competitiveness for IFS in a way similar to the removal of cascading taxes in manufacturing. There will be an initial loss of revenue; but this is inevitable with the removal of bad taxes. As an example, India steadily eliminated customs duties, which did hurt tax revenues. There was no attempt at introducing any compensating changes in the tax code, one-for-one, which compensated for the removal of the bad tax.

Sometimes, it is felt that a trade-off can be created between the taxation of capital gains and the taxation of financial market turnover. However, the unique historical features of India's evolution on both questions should not obscure the need for rational tax policy on both questions.

Box 12.2: *Case Study on Swedish experience with transaction taxes, 1983–91*

The research literature suggests that transaction taxes can have negative effects on price discovery, volatility, liquidity, and lead to a reduction in the informational efficiency of markets (Habermeier and Kirilenko, 2003). One fascinating experiment with the introduction, and then the repeal, of a securities transaction tax took place from October 1983 to December 1991 in Sweden (Umlauf, 1993; Campbell and Froot, 1995).

Left-wing political parties in Sweden believed that trading on financial markets was an undesirable activity. It was argued that "*the salaries earned by young finance professionals were unjustifiable in a society giving high priority to income equality, especially given the seemingly unproductive tasks that they performed*". Despite the objections of the Swedish Finance Ministry and the financial industry, popular support led to the adoption of the STT by Parliament in October 1983, with effect from January 1, 1984. The STT was levied on domestic stock and derivative transactions. Purchases and sales of domestic equities were taxed at 0.5% each, resulting in a 1% tax per round trip. Round-trip transactions in stock options were taxed at 2%. In addition, exercise of an option was treated as a transaction in the underlying stock and, thus, was subject to an additional one percent round-trip charge.

The tax coverage and rates were based on populist notions about the *usefulness* of transactions in different financial instruments, with those involving equity options being seen as the least *useful*. Continuing pressure from the Left compelled Parliament to double rates in July 1986, and broaden its coverage in 1987. Furthermore, following large losses in interest rate futures and options (most notably by the City of Stockholm, which lost SEK 450 million), the tax was extended to transactions in fixed-income securities, including government debt and the corresponding derivatives in 1989. The maximum tax rate for fixed-income instruments was set at 0.15% of the underlying notional or cash amount. In addition, the tax was designed to be *yield-neutral*, with longer maturity instruments being taxed at progressively higher rates.

The empirical experience with revenues from STT was poor. When rates were doubled in July 1986, tax collections only went up by 22%. Customers were avoiding the tax by shifting their order flow to London or New York. The first thing which dried up was the order flow from foreign investors. Domestic investors avoided the STT by first establishing offshore accounts (and paying the tax equal to three times the round-trip tax on equity for funds moved offshore) and then using foreign brokers. The scale of avoidance was manifested by a massive migration of stock trading volume from Stockholm to other financial centres. Following the doubling of the tax, 60% of the traded volume of the 11 most actively traded Swedish stocks migrated to London. The migrated volume represented over 30% of all trading volume in Swedish equities. By 1990, that share increased to around 50%. Only 27% of the trading volume in Ericsson, the most actively traded Swedish stock, took place in Stockholm in 1988.

In the Swedish experience, revenues from the STT were poor for two reasons: shift in turnover to venues free of STT, and the decline in share prices associated with the tax and its impact upon market liquidity.

Broadening the tax to fixed-income instruments resulted in a sharp drop in trading volume in Swedish government bills and bonds and in fixed-income derivatives contracts. During the first week of the tax, bond trading volume dropped by about 85% from its average during the summer of 1987 and trading in fixed-income derivatives essentially disappeared. This significantly undermined the ability of the Bank of Sweden to conduct monetary policy, made government borrowing more expensive, and eroded both popular and political support for the tax. Taxes on fixed-income instruments were abolished in April 1990. Taxes on other instruments were cut in half in January 1991 and abolished altogether in December 1991.

Following the abolition of the tax, some trading volume came back to Sweden. By 1992, roughly 56% of trading in Swedish equities took place in Sweden. Once lost to other centres such trading volume becomes extremely difficult for countries to bring back home.

Modern economic reasoning suggests that there is merit in having both zero taxation of turnover and low-to-zero taxation of capital income. Discussions about the STT should not be undertaken as a trade-off with discussions about capital gains to achieve 'revenue neutrality'. That is a false trade-off.

The removal of stamp duty is part of the *Grand Bargain* proposed by the Kelkar Task Force. In exchange for tax revenues from *all* services, states should be willing to give up distortionary taxes like the stamp duty. In the case of real estate, the Kelkar Task Force report proposes integrating the real estate sector into the GST, which further enhances the case for elimination of stamp duty on real estate transactions.

In the case of registration fees, there is a role for the State in performing essential asset registry functions, and enforcing property rights associated with them. These functions are comparable to those of a depository on the markets. Registration fees can be interpreted as user charges for performing record keeping functions – which justifies small charges such as the per-transaction charge of NSDL. But the imposition of indirect taxes through registration and stamp duties constitutes a case of erroneous tax policy. There is a case for a user charge for operating and maintaining an IT system that maintains ownership records. There is no case for transaction taxes.

5. A Goods and Services Tax (GST) in Finance

The Kelkar FRBM Task Force report proposed the creation of a two-part VAT named the Goods and Services Tax (GST). What it envisages is a pair of taxes – levied by

Centre and States – that are harmonised in terms of tax policy and administration. The incidence of GST falls on *consumption* in the domestic economy; foreign consumers are not taxed. All parts of the economy – including the financial sector – would be covered by GST. This objective is consistent with both modern economic reasoning (Auerbach and Gordon, 2002) and with the establishment of an IFC in India. In the context of debates about treatment of domestic firms versus foreign firms, the GST comes down very clearly, seeking to have identical treatment of all firms.

From the viewpoint of Indian public finance, the emergence of an IFC in Mumbai would generate tax revenues through: (a) taxes on the income of individuals working in the IFS industry; (b) corporate income taxes applied to the firms operating in the IFC; and (c) the GST applied to value added by the industry when selling to local customers. Once these three sources of tax revenue are in place, it should become possible to simultaneously remove all turnover taxes, including stamp duty, registration duty and the securities transaction tax (STT).

Applying the GST to financial services is sound in principle. But the practical difficulties of achieving this outcome need to be better appreciated. The European Union pioneered building an EU-scale VAT on finance. Its experience has highlighted many areas of complex decision-making in tax policy and tax administration. India needs to approach the construction of a VAT on finance as a multi-year process, to be undertaken delicately and thoughtfully.

6. Mumbai as an IFC: Tax Implications for Maharashtra and Mumbai

This chapter underlines the principle that there is no role for taxation of transactions on financial services – whether for IFS or DFS (domestic financial services). Hence, neither Mumbai nor Maharashtra should expect a new revenue base emerging from large trading volumes of IFS in Mumbai. In fact turnover taxes (like stamp duties) levied on IFS transactions would ensure that there would, in all probability, be no IFS trading in/from Mumbai at all. Without stamp duties and other forms of 'local' taxation to capture, state and city politicians may ask: "What does Mumbai gain from having an IFC?" The answer is that:

- First, the two-part GST proposed involves a layer that consists of a consumption tax enforced at the State level. This would generate incremental revenues in proportion to the substantial incremental consumption opportunities created by having an IFC in Mumbai; *i.e.*, as a consequence of having more global financial firms locating in Mumbai to trade IFS and employing a far greater number of high-income people from Mumbai and abroad.

  That would create downstream opportunities for providing these incoming high-income firms and people with the usual range of incremental goods and services (from homes, to cars, refrigerators, washing machines, food, clothing, household linen and durables, domestic helpers, chauffeurs, peons, clerical workers, secretaries, finance professionals and paraprofessionals such as accountants, book-keepers, auditors, compliance officers, as well as restaurants, laundries, bakeries, clubs, cinemas, theatres, bookshops, hairdressers, fuel, gas stations, etc. *etc.*)

  But it would also have incremental costs: *i.e.*, by generating new needs for infrastructure (homes, office space, retail space, water, power, telecommunications, roads, sewerage, storm drainage, parking, airlines, airports, trains *etc.*), for law and order, security, and for physical/social recreation. Such investment could be made through PPPs thus saving the state and the city from making the actual investment necessary in creating such facilities.

  The additional demand created for goods and services by an IFC in Mumbai would generate a significant amount of additional revenue for the city and the state without having to resort either to directly taxing IFS transactions, or the profits of firms providing or trading

in IFS. To the extent that an IFC in Mumbai increases general consumption – of both goods and services – it would generate substantially increased tax revenues indirectly.

But it would also demand better standards of governance to be provided (from policing to keeping public lavatories spotless and deodorised) by both city administration and the State government – governance that meets international standards. That would pose a greater challenge; one that should worry city/state (and central) government politicians and officials much more than the incremental revenues emanating from an IFC in Mumbai.

- To the extent that there are high productivity firms and individuals in Mumbai, this would support higher property prices and thus a bigger revenue stream from property taxes; especially if the market for owned and rented properties were to clear more efficiently in Mumbai than it presently does. The same is true for taxes from fuel consumption *etc.*

The benefit for state and municipal exchequers from having an IFC in Mumbai would be the enormous additional impact on prosperity in Mumbai and its surrounding region. It would not be seen through higher *direct* tax revenues. If there is any doubt about that then state and local politicians/officials should see for themselves first hand, the large incremental indirect benefits being derived in New York, London and Singapore by having an IFC located there. If such benefits were ephemeral it is certain that Dubai would not be pursuing the establishment of an IFC as aggressively and tenaciously – particular in inviting Indian financial firms to operate from there. Mumbai would have to be prepared to accommodate migrants not just from all over India but from the world who would be attracted by work opportunities in an IFC. Slogans and policies perceived to be 'anti foreigner' or 'anti expatriate' would do immense damage to the prospects of making Mumbai a viable IFC.

7. Interfacing tax policy and administration with the financial industry

The development of an IFC in Mumbai requires more vibrant interaction between Department of Revenue, the CBDT and the CBEC, with the financial services industry. This will be particularly necessary when the greater complexity of IFS provision escalates the complexity of tax policy and tax administration. A better institutionalised mechanism for interaction could yield a greater understanding of the ground realities of finance. This could influence tax policy, and practical problems of implementation could get more rapidly sorted out. Hence, there is a case for the Department of Revenue, as the agency responsible for tax policy, and the two implementation arms (the CBDT and the CBEC) to establish an Ombudsman function in Mumbai. Such an office would facilitate engagement by the financial services industry on one hand and the tax authorities on the other. It would enable issues of tax policy and consistency of its administration to be institutionalised. There is also considerable scope for these agencies doing some hands-on learning from cities like New York, London and Singapore in understanding how they deal with the same issues without disrupting IFC operations.

8. Stability of tax policy

From the viewpoint of India's aspirations to have Mumbai become an IFC, it is essential to emphasise the importance of stability and predictability of future tax policy. No firm – and financial firms least of all – likes to deal with uncertainty in making investment decisions and deciding where transactions will be booked and operating cash-flows registered. Global financial firms will require some assurance about the rationality and stability of the Indian macro-policy regime (on tax, capital controls, exchange rates, inflation, and monetary policy) in coming years, in order to make decisions about placing parts of their global IFS operations in Mumbai.

Table 12.1: Comparing India against existing IFCs on taxation

Attributes, Characteristics and Capabilities of an IFC: (Scale of 0–10 with 0 = worst; 10 = best)	London	New York	Tokyo	Singapore	Frankfurt	Mumbai
N. Taxation Issues as they affect the attractiveness of an IFC						
N1. Taxation of Resident Individuals working in the IFC	5	4	3	5	2	5
N2. Taxation of Non-resident Individuals working in an IFC	7	5	5	6	3	6
N3. Taxation of Resident Companies	4	4	3	5	2	5
N4. Taxation of Non-resident companies	7	5	5	8	4	5
N5. Withholding Taxes levied on financial instruments/transactions.	4	3	3	5	3	5
N6. Transactions Taxes on Financial Transactions – Domestic	6	7	4	7	4	1
N7. Transactions Taxes on Financial Transactions – IFS	7	6	6	8	5	?
N8. Provisions for IBC or GBC licensing (*e.g.*, Delaware type)	6	8	2	8	2	0
N9. Taxation of IBC/GBC companies	6	6	5	8	2	0
N10. Overall Taxation Environment	**5**	**5**	**4**	**7**	**2**	**5**
N11. Complexity of Tax Laws, Codes, Rules, Regulations	4	3	4	7	3	1
N12. Effectiveness, Efficiency, Fairness and Corruption in Tax Administration	9	7	8	9	9	3

Table 12.2: Comparing India against emerging IFCs on taxation

Attributes, Characteristics and Capabilities of an IFC: (Scale of 0–10 with 0 = worst; 10 = best)	Mumbai	Hong Kong	Labuan	Seoul	Sydney	Dubai
N. Taxation Issues as they affect the attractiveness of an IFC						
N1. Taxation of Resident Individuals working in the IFC	5	8	5	4	4	10
N2. Taxation of Non-resident Individuals working in an IFC	6	10	10	7	7	10
N3. Taxation of Resident Companies	5	8	6	5	4	10
N4. Taxation of Non-resident companies	5	10	9	8	5	10
N5. Withholding Taxes levied on financial instruments/transactions.	5	10	9	5	5	10
N6. Transactions Taxes on Financial Transactions – Domestic	1	10	5	5	2	10
N7. Transactions Taxes on Financial Transactions – IFS	?	10	9	8	6	10
N8. Provisions for IBC or GBC licensing (*e.g.*, Delaware type)	0	9	9	5	3	10
N9. Taxation of IBC/GBC companies	0	9	8	6	5	10
N10. Overall Taxation Environment	**5**	**8**	**7**	**6**	**5**	**10**
N11. Complexity of Tax Laws, Codes, Rules, Regulations	1	8	7	5	4	9
N12. Effectiveness, Efficiency, Fairness and Corruption in Tax Administration	3	8	7	6	8	9

As an example, the creation of a securitisation SPV may involve cash-flows for the coming 20 years or 40 years. If there is a risk of a major change in tax policy in that period then there is a reduced incentive to setup the SPV under Indian jurisdiction. The credibility of Mumbai as a potential IFC will be enhanced by having both (a) rational tax policy and (b) a framework that guarantees the *stability* of tax policy.

In the last decade, India has seen considerable changes in its tax regime, reflecting fiscal reforms that have been more

far-reaching than is generally appreciated. Most of the changes made by the Centre have been in the right direction. Unfortunately, some of the tax changes made by States, to cope with their chronic fiscal incontinence, have been in the wrong direction. Few parts of the Indian economy have experienced as much progress as fiscal policy, with sharp reductions in customs duties, shift from turnover taxes to VAT, reduction of rate dispersion in indirect taxes, and lower income taxes. This paradigm shift in policy has been accompanied by far-reaching improvements in tax administration through computerisation, particularly with income tax and customs. But this progress has inevitably implied an environment of fast-changing tax policy. A particularly unhappy set of events has taken place on the tax treatment of dividends, where India has changed tax policy multiple times and created sufficient uncertainty about the future as to cause serious concern among global investors about policy stability.

From the viewpoint of creating a viable IFC, the recommendation of the Committee would be that a more specialised committee of tax experts familiar with IFS and the operations of global IFCs should now be created to translate the ideas of this chapter into detailed tax policies for specific IFS products and services, after which private agents should be encouraged to expect stability of tax policy for the deep future.

9. Where India Stands on taxes: An international comparison

In a pair of tables, we show a subjective comparison, where incumbent and emergent IFCs are rated on a scale from 0 to 10 on twelve measures of the tax policy and administration. When compared against established IFCs, the overall score of Mumbai (5) matches that of London or New York. But it fares poorly when compared with Singapore (7) and Dubai (10).

A perspective on Mumbai's strengths

chapter 13

In contemplating the creation of an IFC in India, the metropolis of Mumbai, backed by the human resources of India as a whole, has six manifestly visible strengths:

1. ***Hinterland advantage***: Mumbai is the financial and commercial capital of one of the largest and fastest-growing countries in the world. India is already the world's fourth largest economy in PPP terms after the US, China and Japan. By 2012 it will be the fourth largest in nominal terms. By 2020 it will be the third largest. India's rapid growth has resulted in a phenomenal increase in two-way cross-border financial flows that are related to trade and investment. Those flows are inducing high growth in IFS demand. Mumbai is to India what New York is to the US (see Chapter 4).
2. ***Human capital***: India has high quality, low cost human capital (at all skill/knowledge levels) with English speaking ability for a world class IFS industry that can export successfully to the world. But such human capital is being absorbed at a rapid rate across all service industries, and specialised knowledge in the frontiers of finance is weak. Much needs to be done by way of education and training to expand the human resource base in terms of its width and depth. These constraints are discussed later in this chapter.
3. ***Location***: In the 24-hour trading environment of what is now an increasingly integrated global financial market (encompassing OECD countries and embracing many significant emerging markets as well) a well placed location that permits contact with participants in this market during daylight can be a significant strategic advantage. In working hours, conversations from Mumbai can take place with transacting counterparties from Tokyo to London *i.e.*, covering all of Asia, the EU and everywhere in between. While the Americas are beyond daytime conversations with Mumbai, the experience of IT services, BPO/KPO and call centre industries has shown that this handicap can be overcome. The same will be true of the IFS industry. There is no IFC operating in the Indian time-zone; resulting in a wide empty space (8 time zones) between the clusters of IFCs in the East (Tokyo, Hong Kong, Singapore and Sydney) and the West (London, Paris, Amsterdam, Frankfurt and New York). Dubai, for instance, is using its location, straddling these time zones as a selling point for DIFC. But it does not have many of the advantages that Mumbai has (human capital, well-developed exchanges and trading platforms, a large hinterland market, IT support capability) while having some advantages that Mumbai does not have: *i.e.*, excellent infrastructure, good urban governance, political and administrative drive, the makings of a global city with expatriates from all over the world, and an ambition to succeed, with no domestic political economy constraints holding it back.
4. ***Democracy and Rule-of-Law***: Properly functioning financial markets require a basis for governance that is stable, reliable, resilient and flexible; *i.e.*, one that reduces future political risks and uncertainty. While these are important strengths, they are accompanied by equally important difficulties in governance of Mumbai and of India's financial regime. These issues are discussed later in this chapter.
5. ***Mindshare***: High GDP growth, the BPO phenomenon, and the remarkable

success of Indians in global finance all over the world, serve to ensure that India has significant 'mindshare' at senior decision-making levels of most global financial firms.

6. ***Strong securities markets and technologically advanced trading platforms***: India has established a beach-head for providing global IFS by virtue of its dynamic, technologically capable securities trading platforms in the NSE and BSE. These are the 3rd and 5th biggest exchanges in the world measured by volume of transactions.

Three of these six factors constitute unambiguous strengths: hinterland advantage, location and mindshare. The remaining three issues represent strengths, but a nuanced analysis reveals many important flaws. In the case of securities markets and trading platforms, these issues have been dealt with at length earlier in the report. It was argued that the framework of financial sector policy and regulation at present severely limits India's ability to utilise NSE and BSE fully in order to obtain an edge in international IFS competition. In this chapter, we turn to a careful analysis of the two remaining points: human capital, and the issue of democracy and rule-of-law.

1. Human capital needs for IFS

India has four strengths by way of human capital endowments that give it an edge over other emerging IFCs as far as the utility of its human capital endowments for competitive IFS provision is concerned:

1. The extensive use of English, which is the *lingua franca* of international finance;
2. Generations of experience with entrepreneurship, speculation, trading in securities and derivatives, risk taking, and accounting. Indeed the ability to provide IFS competitively seems genetically coded into Indian finance professionals;
3. Strong skills in information technology and quantitative thinking;
4. Individuals of Indian origin play a prominent role in the top 20 global financial firms. They are well-positioned to intermediate between the business strategies of these vital firms and the genuine strengths and weaknesses of India as an IFC.

The international image of India today involves a '*high-skill with high motivation and high adaptability*' labour force for almost all service export industries. The attitude of ambition and hard work is epitomised in a statement of Shri Kamal Nath, the Indian Minister of Commerce: "*In India, a 50 hour working week is considered part-time*".

Table 13.1 applies the same 1-to-10 scoring scheme, utilised earlier in this report, in making a cross-country comparison of human skills in various kinds of finance functions. Mumbai is compared against established and emerging IFCs. It shows that Mumbai has some strengths when compared with established IFCs. But at the same time, the table does not support simplistic triumphalism of a kind often expressed about the superiority of the Indian labour advantage. While India has a certain presence in the finance labour force, there are many areas of weakness.

India is weak in not yet being a full beneficiary (because it does not yet have its own IFC) of the globally mobile expatriate workforce in finance. To be sure, Indian expatriates populate almost all the English-speaking IFCs. The three GFCs and DIFC would not be able to function as well as they do without them. But these expatriates choose to live in these IFCs and change their nationality rather than remaining India-centric. By contrast, the financial community of British, American, Australian, Japanese, Canadian, Singaporean and European nationals is genuinely globally mobile, shifting continually across IFCs at home and abroad, while remaining anchored to their nationalities and homelands. They accrue significant benefits for their home economies by doing so. Having an IFC in Mumbai would enable India to shift from exporting its best financial talents permanently, to retaining a hold on such talent in the future by providing greater global mobility, combined with an

Table 13.1: Cross country comparison of human capital support for the IFS Industry

		London	New York	Tokyo	Singapore	**Mumbai**	Hong Kong	Seoul	Sydney	Dubai
J1.	Quality, availability and cost of Finance Industry professionals:									
	: Strategic/Exec	10	10	5	6	**3**	6	5	7	6
	: Management (all functions)	7	8	5	6	**4**	7	6	7	6
	: Trading & Dealing	9	9	6	8	**4**	7	6	7	5
	: Financial Analysis & Research	7	9	5	6	**8**	7	6	7	6
	: Compliance Specialists	8	7	6	9	**4**	5	6	8	6
	: Back-Office Functions/Support	6	7	4	5	**9**	7	6	4	6
J2.	Presence/Quality of Post-Graduate Teaching/Research Institutions in Finance	6	10	4	3	**2**	3	3	5	0
J3.	Local Pool/Network of globally experienced finance professionals	10	8	4	7	**2**	5	5	7	5
J4.	Local presence of Global HR Recruitment/Consulting/Training Firms	10	10	6	8	**2**	5	5	7	5
J5.	Ease of entry, exit and overall mobility of global finance professionals at all levels	8	7	3	7	**2**	6	3	6	8

attachment to the homeland, that will prove mutually beneficial.

A McKinsey Global Institute Survey[1] estimates India's pool of young university graduates (those with 7 years or less of experience) at 14 million – the largest of the 28 countries surveyed. This is 1.5 times that of China and almost twice that of the US. This pool increases by about 2.5 million every year. But, only a fraction of this pool has credible, usable skills. MNC managers surveyed estimate that only 10–25% of this pool would be suitable for an MNC environment. That is half the proportion in Central Europe. The reason for this outcome is ascribed to: (a) extreme variability in the quality of tertiary educational institutions – India has a handful of the best such institutions in the world; but they co-exist alongside too many of the worst; (b) high rates of emigration of graduates from India's top quality institutions to OECD countries; and (c) the inadequacy of communication skills in English except for the top tier of students from the better institutions who come from relatively high income groups and class backgrounds. In terms of technical and quantitative skills, only 1.2 million students hold engineering degrees. That is only 4% of the total university educated workforce in India, compared to 20% in Germany and 33% in China.

Some evidence from the World Economic Forum and from IMD (Switzerland) comparing India against some other countries on workforce skills is shown in Table 13.2. There are divergent views between the two sources on the educational system: WEF ranks India at 11th out of 104 (*i.e.*, in the top decile) while IMD ranks the educational system at 39th out of 60 (*i.e.*, in the bottom third). India scores high on education and staff quality *in finance* in both instances.

One aspect of labour quality concerns support services – *e.g.*, accounting, legal services, business consulting and IT support – that are typically outsourced by financial firms. These services complete the skill sets required by an IFC. The presence, for instance, of highly specialised printing firms with tight internal security arrangements, has become a complex specialised service in the IFS market, given increasingly stringent regulatory disclosure and insider-trading prohibitions. Hitherto, a combination of legal and commercial skills was a prized requirement in financial contracts; this combination is now meshed with specialised printing skills.

Broadly speaking, in a cross-country comparison, India fares well in these support

[1] "Ensuring India's offshoring future", Diana Farrell, Noushir Kaka and Sacha Sturze, in Fulfilling India's Promise (McKinsey Quarterly Special Edition 2005).

Table 13.2: Workforce skills base comparisons

Rankings	USA	UK	Japan	India	Hong Kong	S'pore	Australia
Educational System (b)	17	36	40	11	15	3	4
Quality of the Educational System (a)	27	22	31	39	17	2	7
Education in Finance (b)	16	45	54	17	12	5	4
Quality of Management Schools (a)	1	3	37	6	25	16	7
Tertiary Enrolment Rate (a)	4	13	29	79	56	32	9
Availability of Finance Skills (b)	8	33	49	12	7	11	17
Reliance on Professional Management (a)	5	2	12	29	28	18	3
Labour Productivity – GDP (PPP) per person per hour (b)	7	21	24	60	30	28	17

(a): Global Competitiveness Report 2004/05, World Economic Forum, (104 countries);
(b): World Competitiveness Yearbook 2005, Institute for Management Development, Switzerland, (60 countries)

services, except in the case of global law firms, where India lags other IFCs. One way of developing capacities rapidly in the support services and financial segments mentioned above is to attract dominant players in these segments into the IFC. London got a major boost when Deutsche Bank decided to move its global operations there. The presence of all the big investment and commercial banks provides a critical mass to financial operations in Singapore. Emerging IFCs like Dubai are pulling out all the stops to attract global financial talent supported by middle management and lower level labour skills for IFS from India.

Although there are still many regulatory restrictions on the entry of foreign banks into its domestic banking market, India has not been able to attract large capital markets players, even though there are fewer restrictions on their entry in that sub-segment. That is mainly because the development of major areas of financial activity in which such institutions excel (*e.g.*, mergers and acquisitions, risk management, currency trading, interest-rate arbitrage, corporate-sovereign-sub-sovereign bond issuance, hedge funds) are also artificially proscribed in India.

Modern post-1980 finance knowledge, at present, in India is weak; especially on the part of senior executives in most Indian financial firms as well as in the upper echelons of financial regime governance. Lacking such knowledge and familiarity with the kinds of operations and risks involved in derivatives markets for instance, the approach taken in India is to avoid these activities altogether or to constrain them to a point of irrelevance. Mainstream MBA programs have a heterogeneous intake, and do not delve into modern quantitative finance. Staff quality at universities is inadequate when compared with the requirements of teaching modern finance. As an example, the Heath-Jarrow-Morton model is the workhorse of thinking about fixed income derivatives. There are probably not more than five individuals working at universities in India who understand this model.

Indian finance professionals have a reputation for being quantitatively competent. This is rooted in the high quality of high school education in India, where everyone going through the 12th Standard learns calculus. Many engineers who turn to finance are skilled in calculus and linear algebra. But they often do not know as

Table 13.3: Rankings: Quality and Capacity of Business Support Services to sustain an IFC

		London	New York	Tokyo	Singapore	**Mumbai**	Hong Kong	Seoul	Sydney	Dubai
H1.	Quality, reputation and presence of Global Accounting Firms	9	9	8	9	**6**	8	7	9	6
H2.	Quality, reputation and presence of International Law Firms	9	10	6	7	**2**	8	5	8	5
H3.	Quality, reputation, presence of Global Consulting Firms	10	10	8	9	**4**	7	6	8	6
H4.	Quality and competitiveness of IT, BPO, KPO support	6	6	4	5	**9**	5	5	5	6

Box 13.1: *The Master of Science in Finance (MSF)*

In India today, the commonest degree obtained by individuals seeking a career in finance is the MBA. Internationally, however, there has been a strong shift in finance professionals, away from the MBA towards a new degree called the *Master of Science in Finance*. There are three main differences between the MBA and the MSF:

1. Usually about 20–25% of the coursework in an MBA curriculum is focused on finance, while all the coursework in an MSF is in finance.
2. The MSF imparts greater knowledge of mathematics and computer science, thus preparing the student for the quantitative and data-intensive modern finance workplace, where mathematical models are applied into measuring risk, pricing financial instruments, and developing and testing trading strategies.
3. The MSF tends to involve substantial teaching in analytical financial economics, going beyond the more descriptive finance coursework as seen in the MBA where the mathematical background of students is inadequate.

The MSF program prepares students for careers in financial analysis, investment management and corporate finance where they will confront sophisticated financial instruments, markets and trading strategies. The typical MBA student has a very limited knowledge of derivatives arbitrage; the typical MSF student knows quite a bit about it.

The MSF is a quantitative program, where current technology and financial methodologies are applied to analyze complex problems. The coursework stresses the application of contemporary theories in a global context and develops valuable financial modelling and analytical skills. The programme contents impart students with a thorough understanding of the nature and operation of international financial markets and institutions and develop the analytical skills essential to structuring deals and designing financial instruments, pricing financial products and valuing companies, designing and managing investment portfolios and managing risk for financial institutions and multinational corporations.

India's best institutions urgently need to introduce and offer courses aimed at an MSF degree.

much about probability theory. Finance professionals in London do more computer programming, while their counterparts in Mumbai are likely to use a spreadsheet.

If Mumbai is to emerge as an IFC, substantial skills development will be required to overcome a potential human capital supply constraint in financial services: especially in the areas of stochastic calculus and analytical financial economics. Middle level executives and senior staff employees of financial firms, who knew mathematics when they were in their twenties, need to go back to learning probability, statistics, analytical financial economics and computer programming. The flow of young people coming into the finance field needs to have a much stronger grounding in probability, statistics, analytical financial economics and computer programming.

New York has the Stern School of Business at New York University (NYU), and the Economics Department at Columbia University. It is also supported by schools in close proximity such as MIT, Wharton and Chicago that excel in quantitative finance. London has the London Business School (LBS) and the London School of Economics (LSE) supported by mathematics and quantum physics graduates from nearby Oxford and Cambridge which are an hour's drive away. But they do not quite compare as yet with the sheer cerebral firepower in quantitative finance that is concentrated at the top US institutions.

Singapore has the National University of Singapore (NUS). In a recent and remarkable achievement, the 'Singapore Management University' has been created. This is a *private* university, created in 2000 using public funding. It operates in the heart of the city, in order to maximise the two-way flows of knowledge between the industry and the university. It pays globally competitive wages in order to attract world class researchers. Singapore Management University is very young when compared with the IIMs, and it has only one campus when compared with the numerous IIMs. Yet, a google search for "singapore management university" already yields 200,000 hits while a google search for "indian institute of management" yields 520,000. This suggests that Singapore

Table 13.4: Rankings: governance issues affecting operations/Credibility of an IFC

		London	New York	Tokyo	Singapore	Hong Kong	Seoul	Sydney	Dubai
G1.	Quality and Credibility of National Governance	7	6	7	10	3	6	7	7
G2.	Quality and Credibility of State/Provincial Governance	8	9	8	10	5	7	8	7
G3.	Quality and Credibility of Local/Municipal Governance	8	8	9	10	6	7	8	9
G4.	Influence of Politics in diminishing Governance Quality:								
	National/Federal	6	6	8	10	5	5	8	8
	State/Provincial	6	8	8	10	6	5	7	8
	Local/Municipal	8	8	8	10	7	7	8	10
G5.	Quality, Capacity, Efficiency, Effectiveness of Administration:								
	National	6	7	8	10	5	6	8	8
	State	6	8	8	10	6	6	8	8
	Municipal	8	9	9	10	7	7	8	8
G6.	Role of Checks & Balances (NGO oversight, media freedom, civic action *etc.*)	8	9	5	2	4	4	6	0

Management University has been able to very rapidly build up a presence and achieve impact. In addition, the Singapore government is working with over a dozen global universities, attracting them to establish campuses in Singapore. In contrast, India has presented a forbidding environment where foreign universities are unable to establish operations in India.

Mumbai has no institutions (except perhaps IGIDR) where a few of the highest-calibre intellectuals inhabit an ivory tower, conduct on-going research programmes with Indian financial firms at the frontiers of finance, and teach the next generation of finance professionals. Mumbai lacks the wealth of conferences, seminars, short-term continuing education courses, and intellectual life that sustains the top end of the financial services industry. The top ten books on the desks of quantitative financial professionals in global financial firms are available off the shelf at bookshops in New York, London and Singapore. But they are almost impossible to find in Mumbai and have to be acquired abroad. India lacks not just the sophisticated mathematical skills it needs in its financial services workforce it lacks teachers in these disciplines and simply does not produce enough of an annual flow of them.

2. Democracy, Rule-of-Law and the Legal System

India has a long tradition of free and fair elections, freedom of speech, and a spirit of openness. Respect for property rights is strong (more in principle than practice). India has, in the past expropriated property and undertaken sweeping nationalisations in finance and industry. That history should theoretically count against it as far as having an IFC is concerned although London was in a similar situation when the UK also resorted to nationalisations that it later reversed. And, in the era of nationalisation in the UK, London's fortunes as an IFC definitely suffered.

As Fareed Zakaria has emphasised, the heart of a democracy (and its protection and safe-keeping) lies in the quality of its judiciary and not only in the legislature or in elections. The infrastructure for law and order, and contract enforcement, are central to a vibrant democracy. They directly affect the credibility/viability of Mumbai as an emerging IFC.

India is a thriving democracy – the world's largest, most complex and most vibrant – supported by a legal system that is now being strained at the seams with the rapid growth and progress that has occurred since the 1990s. The length of time taken for cases to progress through the legal system and the consequent enormous backlog of cases that has built up in the lower civil courts, impinges on the question of whether India has a legal system environment that is sufficiently supportive of the swift resolution of conflicts and disputes arising from the settlement/enforcement of complex international financial contracts. That in turn influences the prospects of

Table 13.5: Protecting Investors & Enforcing Contracts

	Extent of disclosure index (0–10)	Extent of director liability index (0–10)	Ease of shareholder suits index (0–10)	Strength of investor protection index (0–10)	Procedures (number)	Time (days)
Singapore	10	9	9	9.3	23	69
United States	7	9	9	8.3	17	250
Hong Kong, China	10	8	8	8.7	16	211
United Kingdom	10	7	7	8	14	288
Australia	8	2	8	6	11	157
Japan	6	7	7	6.7	16	60
Germany	5	5	6	5.3	26	175
Korea	7	2	5	4.7	29	75
Malaysia	10	9	7	8.7	31	300
France	10	1	5	5.3	21	75
Taiwan, China	8	4	4	5.3	28	210
UAE	4	8	2	4.7	53	614
China	10	1	2	4.3	25	241

Sources: World Bank Group Doing Business 2007 and 2006

providing IFS to the global market from Mumbai on an efficient, competitive basis and of Mumbai becoming a competitive IFC in the foreseeable future.

Using the same techniques as in earlier chapters, the comparative Table 13.4 ranks various established and emerging IFCs on a series of layered governance variables. As in the case of legal comparators shown in an earlier chapter, the HPEC felt that it was not in a position to derive subjective rankings on these variables for Mumbai. Consensus could not be achieved on quantitative scores for Mumbai, given the degree of subjective judgement involved in coming up with such scores. But the HPEC did have broad consensus that there was considerable scope for improving governance at all levels of the system –particularly at sub-sovereign levels. It felt that governance standards in India needed to approach world standards as rapidly as possible if Mumbai prospects for emerging as an IFC that was credible in global financial markets were not to be compromised.

The most critical role of the State (and the government in power at the time exercising the functions of the State), as far as its citizens and residents are concerned, is its ability (with the infrastructure and human capacity it has in place) to uphold the law, to ensure the maintenance of law and order

Table 13.6: Paying Taxes

	Payments (number)	Time (hours per year)	Total tax payable (% of gross profit)
Singapore	16	30	19.5
United States	9	325	21.5
Hong Kong, China	1	80	14.3
United Kingdom	22	–	52.9
Australia	12	107	37
Japan	26	315	34.6
Germany	32	105	50.3
Korea	26	290	29.6
Malaysia	28	–	11.6
France	29	72	42.8
Taiwan, China	15	296	23.6
United Arab Emirates	15	12	8.9
China	34	584	46.9
India	59	264	43.2

Source: World Bank Group Doing Business 2007 and 2006

through enforcement capability (*i.e.*, the effectiveness of its police forces and other mechanisms), to prevent crime and provide security for persons and their property, to enforce property and creditor rights fairly and impartially, and to resolve contractual disputes through the due processes of law.

In all these respects it is no secret that much progress needs to be made at sovereign and sub-sovereign levels of governance to arrive at global standards. The challenge of a third world country attempting to achieve first world standards in these areas is daunting; but India has made a promising start with domestic expectations rising as rapidly as incomes. The HPEC believes that progress in governance at all levels – in the public and private sectors – needs to be commensurate with rate of progress in other areas. On the specific question that exercises the mind of those operating in an IFC– *i.e.*, the problem of enforcing a contract, this takes on average 425 days in India, far longer than in any other country shown in the table with the exception of the UAE.

Finally, an important aspect concerning the functioning of the State in a country intent on establishing an IFC– that automatically requires extensive participation by international firms and individuals – at a procedural level is the overhead and complexity of its tax system. Table 13.6 below shows that in India, there are 59 distinct tax payments made by a firm, a task which takes up 584 man-hours per year. This compares poorly with alternative IFCs like Dubai or Singapore.

Urban infrastructure and governance

chapter 14

1. The importance of high quality urban infrastructure for an IFC

While the answer may seem obvious, or it may be otiose, the question has to be asked: Why do successful GFCs, like London, New York or Singapore, need to have such high quality urban infrastructure? For two main reasons:

The first concerns ***productivity***: International finance involves highly compensated specialists with unusual knowledge-experience skill sets. They are busy and need to make the most of their time. To them, the costs of delay, non-performance, or failure on their part are inordinately high. IFS provision involves intensive national, regional and inter-continental travel and 24-hour telecommunications connectivity. In that respect it is unlike BPO, which takes place in an isolated campus with staff-persons who mostly sit at their desks all day long. In contrast, IFS production involves intensive intra- and extra-city travel for meeting clients, exchanging information and analysis, negotiating and putting together transactions that often involve a consortium of cooperating financial firms.

Moreover IFS production in an IFC is highly IT systems dependent. That is true not just for financial firms operating in an IFC, but for exchanges and trading platforms, payment and settlement systems, and regulators who need to exert continuous surveillance over transactions in real time. All this requires not just sophisticated IT hardware (and immediately available hardware maintenance) but also software and software support capacity, along with stable and reliable systems of high-quality air-conditioning and ventilation to maintain constant atmospheric conditions of temperature and humidity. All these in turn need to be supported by high quality electric power supply (with minimal voltage and current fluctuations) and with sufficient back-up to minimize (to nearly zero probability) the risks of interruption.

For these reasons, IFS production requires a venue where physical infrastructure (*i.e.*, residential and commercial space, power, water, waste disposal, transportation and communications) has to be of the highest quality in order to be globally competitive. Deficiencies in infrastructure increase direct and indirect IFS production costs. They hurt finance directly by confounding the mission-critical processes of the securities markets and payments, and by placing onerous coping costs upon every firm which has to plan on failures of public infrastructure and incur additional costs privately in order to compensate for these shortcomings. The indirect cost imposed by poor infrastructure is upon the wasted staff time of high-skill and high-wage finance professionals, and the opportunity cost suffered when tasks which could be performed in Mumbai are directed elsewhere as a response to the weaknesses of Mumbai.

As has been argued elsewhere in this report, an abundance of fibre-optic cables and video-conferencing have not removed the fundamental role of face-to-face meetings for the most important negotiations and decisions. A day in the life of a skilled worker in IFS production may involve an early morning breakfast meeting at a club or hotel, a long commute to work, moving around several different meeting venues within the city throughout the day to meet clients, colleagues in other firms, accountants, lawyers, consultants, along with lunch and dinner meetings before returning home after a 12-to-16-hour day. That daily routine is interspersed during the week and month with air

travel around the country and across the world.

Mumbai faces a tall hurdle in being hospitable to this kind of individual. More than half of his/her day can be spent stuck in traffic. Mumbai needs to match at least the mundane efficiencies of London, New York and Singapore in order to be a credible venue for IFS production.

There is a paradoxical effect at work in having the city and country make a transition from BPO to IFS. The more skilled a person, and the higher the opportunity cost of time, the less inclined that person will be to spend time in Mumbai's traffic, or in solving mundane problems of power, water or electricity, or law and order. Hence, as long as the urban problems of Mumbai are not resolved more decisively, there will remain a bias in favour of keeping the junior staff-persons of global financial firms in Mumbai to do the low-value work required. High-value IFS work will migrate to proximate centres that are better endowed with infrastructure and with much higher, more efficient standards of city administration and urban governance *i.e.*, Dubai and Singapore. This kind of fracture will frustrate the goal of Mumbai becoming an IFC that can capture high value addition in IFS work.

The second, related issue is that the most skilled staff-persons in global finance have ***choices*** about where they are located and where their time is spent. Initially Mumbai's role as an IFC is likely to be limited to serving mainly the Indian market for IFS – in other words it will be an IFC more like Tokyo and the continental IFCs rather than like the three GFCs. That initial phase will probably stretch from around 2008–15. It will require additional infrastructure.

But those demands are unlikely to be as great as those made when Mumbai enters its second phase (from 2015 onwards) and attempts to compete with the three GFCs. A defining issue for Mumbai's becoming a credible GFC post-2015 will be the challenge of attracting around 50,000 high level people of the kind typically employed by global financial firms in the three GFCs. Only 20–25% of these are likely to be of Indian origin. All these people have a choice of living and working in any city in the world. Their choice will hinges on the attractiveness of a city as a place in which to live, work and play. All the attributes that a city must have – as a hospitable, friendly, welcoming, efficient and pleasant environment – matter very much in influencing the decisions made by this community.

Once again, the more skilled a person is, the more sensitive he/she will be to the wastage of time, and the disutility associated with the very large number of mundane irritations imposed by Mumbai on its residents such as poor roads, air and noise pollution, road and rail traffic congestion, poor health and safety standards and frequent city shut-downs.

These realities make Mumbai an unattractive urban environment for housing an IFC. They need to be tackled and overcome on a war footing after long years of delay and many declarations of intent that remain to be translated into action plans for a new reality. Yet, despite all its shortcomings, Mumbai remains the financial and commercial hub of India. Those who wish to serve the Indian market for IFS will have little choice but to endure its privations and put even further pressure on the city's limited resources and drive up accommodation and land prices. But those privations will not be endured by global clients of an IFC who have other choices.

The highest skill individuals specialised in providing IFS are precisely those who would make a material difference to Mumbai's aspirations to become an IFC. It has oft been remarked by the *cognoscenti* who have lived and worked in the three GFCs that, more often than not, the most innovative ideas in IFS production are exchanged by imaginative, creative financial architects, engineers and artists over cups of coffee. The most fundamental ingredient in a vibrant IFC is the intellectual and commercial interplay between a large number of heterogeneous requirements and viewpoints.

A successful IFC is one that brings a diverse array of knowledge into financial problem solving through lateral thinking, and constructing creative links across diverse

groups of players. This requires a large number of conversations and a wide range of IFS participants in these conversations. If Mumbai is a hospitable and attractive city to a globally mobile population of high-level IFS providers, then a person who comes to Mumbai for a meeting on a Friday is more likely to stay over on the weekend for amusement or leisure. The stray conversations of the weekend can ignite further IFS-related business. If Mumbai is inhospitable, and the person concerned cannot wait for his flight to depart the same evening, these conversations and informal relationships, and thus the business they contribute to the IFC, are lost.

The growth and success of the Indian economy does not automatically overcome the problem of an inhospitable Mumbai for IFS. In fact, in the short-term, it appears to be making that problem much worse as the city is unable – in a meaningful sense other than haphazard building – to cope with the consequences of such rapid growth in a deliberate, planned way that allows for carefully designed urban regeneration, redevelopment and expansion. If India is successful, but Mumbai continues to be a hostile urban environment, then global financial firms intent on expanding their India-related IFS business will continue to make key IFS decisions connected with India as they are doing now: *i.e.*, in New York, Singapore, and London.

Perhaps over time some of the executive functions undertaken in those GFCs for India-related IFS business may migrate to Dubai if the DIFC manages to establish itself in the face of Mumbai's (and India's) failure to come to grips with the physical infrastructure challenges that both city and country face. The creation of DIFC is predicated partly on anticipating such failure. In this scenario, relatively junior staff will be placed in Mumbai to maintain regular client contact at managerial (rather than senior executive) levels and to undertake routine process work. Senior executives will travel infrequently to Mumbai to handle the more critical functions and decisions.

Hence, the most critical task in a strategy for making Mumbai an IFC is the challenge of upgrading the city to world standards in terms of the quality of its infrastructure and, even more importantly, the quality of its governance. For Mumbai to become a successful IFC, the best minds in global finance will need to perceive it as a city that is as attractive as the other three established GFCs in terms of locating their families, educating their children, and as a venue for furthering their own careers and for enhancing their lives. If Mumbai is not perceived in that way by this highly mobile community with extremely demanding standards then it will not succeed as a GFC even if it manages to survive as a more limited IFC serving India's IFS needs on a partial rather than total basis.

In offering this observation, the Committee realises the challenge it poses to all levels of government in India, Maharashtra and Mumbai. It may be that the human talent needed to manage and run a world class city may have to be sourced from wherever it exists to upgrade dramatically the quality of local city administration. It is by no means easy to create and govern a first world global city in a third world environment. But it is not impossible. Malaysia has managed to do that with Kuala Lumpur; although that city does not have the advantages of the vast Indian market and is obliterated from competition in the IFC race by having Singapore on its doorstep with vastly superior capabilities. China has managed to do that with Hong Kong, Beijing and Shanghai. South Africa has managed to do that with Johannesburg. Brazil has managed to accomplish the same with Rio de Janeiro and Sao Paulo. Chile has managed to do that with Santiago and so on. The problems faced in Mumbai are not new, having been solved by dozens of cities, including many in the third world.

To accomplish that difficult, but by no means impossible task central and state level policy-makers may have to consider the short-term perpetration of an inequity quite deliberately, as an investment in the future not just of Mumbai but of India. What

needs to be done is to recreate Mumbai within the next 3–13 years (*i.e.*, in 2010–20) as a forerunner, at the city level, of what India should become in the next 30–40 years – *i.e.*, a developed country. Meeting the challenge of making Mumbai an IFC capable of graduating to GFC status relatively quickly is not a secondary issue. It ranks as being equally important to the major transformation that is required of the license-permit raj in Indian finance.

In other words whether Mumbai becomes a successful IFC, and graduates quickly to GFC status, depends on whether two strategic challenges can be met simultaneously by the authorities in the knowledge that the Indian private sector has the capacity to meet its operating challenge. The two challenges confronting the authorities at central and state/municipal levels respectively are:

1. **Having the vision, resolve, and political courage/will to make the fundamental wide and deep reforms needed across Indian finance to make it operate on global lines and integrate more rapidly with the global financial system (a GoI challenge); and**
2. **Making the equally wide and deep urban policy reforms needed to upgrade the quality of Mumbai's infrastructure and governance – so that it can become a global city similar to the other GFCs; (a GoM and municipal challenge).**

The most important aspect of becoming an IFC – with enormous beneficial side-effects for the Indian economy – lies in attracting the people needed from around the world to live and work in Mumbai. Whether Indian or foreign, all of them can live anywhere in the world they choose. For Mumbai to become an IFC/GFC this community needs to choose to be in Mumbai. That basic reality needs to be seen for precisely what it is. Going for an IFC in Mumbai is a policy choice that will inevitably invoke social reactions in the city and require astute political management. Those reactions may be difficult to cope with. But it would be remiss to obscure this reality for that reason; or attempt to deal with it through a rhetorical compromise that results in distorting reality and compromises the achievement of the IFC outcome.

Table 14.1: Index of fully loaded costs per head (London = 100)

London	100
New York	96
Paris	97
Frankfurt	84
Hong Kong	99
Mumbai	36

Source: The Competitive Position of London as a Global Financial Centre, the Corporation of London, November 2005. Based on Z/Yen Limited, 2005 Cost per Trade Survey (July 2005).

2. Problems of cost

Even though India is a third world country, and labour costs in India are low, the costs of renting office space in Mumbai are high when all components of establishment cost are taken into account. This will deter the placement of IFS activities in Mumbai.

As Table 14.1 and 14.2 show, Mumbai has a significant cost advantages over most IFCs in OECD countries; but it fares poorly when compared with Shanghai or Singapore, two cities which are likely to compete with Mumbai in the IFC space. The costs seen in Mumbai are out of line with general cost levels associated with India's low per capita GDP. As an example, even New Delhi – which has severe problems of urban policy itself – has costs that are much lower than Mumbai's.

3. Cross-country comparison

In Table 14.3, established and emerging IFCs are ranked for indices K1 through K6, all of which measure the quality of physical and social infrastructure, and the living environment. Mumbai has two strengths: (a) the use of English as the default language for global IFS and financial contracts; and (b) the availability and quality of personal and domestic services. In the area of telecommunications, Mumbai is increasingly closing the gap against other cities. In all other areas, there is a huge gap between Mumbai and the emergent IFCs.

[1]Occupancy costs are defined as the average total cost of leasing 10,000 sq.ft. (929 sq.m.) of net usable

Table 14.2: Occupancy costs[1]

2005	2004		Total occupancy cost per workstation pa (US$)	Space utilisation standard per worker (sf)	Total Occupancy cost (US$ psf pa)
Rank	Rank	Location	2005	2005	2005
3	4	London (City)	15,280	113.0	135.2
5	3	Frankfurt	13,640	236.8	57.6
6	5	Tokyo (Central 5 Wards)	13,400	136.7	98.0
8	6	New York (Midtown)	12,200	225.0	54.2
14	33	Hong Kong	9,320	139.9	66.6
14	19	Seoul	9,320	161.5	57.7
29	17	Sydney	7,790	150.7	51.7
40	40	Mumbai	6,670	129.2	51.6
63	**69**	**New Delhi**	**5,140**	**129.2**	**39.8**
90	92	Shanghai (Puxi)	4,150	113.0	36.7
92	87	Singapore	3,970	118.4	33.5

Source: DTZ Research, Global Office Occupancy Costs Survey, January 2005

4. Difficulties in Mumbai from an IFC perspective

The main infrastructure deficiencies in Mumbai are well known: electricity, water, sewage, flooding, transportation and communications. With the city now developing a fractured geography with its two financial centres being located in the Bandra Kurla Complex and Nariman Point/Fort in South Mumbai – intra-city drive times have become particularly critical. New and innovative strategies need to be undertaken to dramatically transform transportation time, utilising both public transport and high speed intra-city expressways. A host of PPP solutions, based on user charges, can be rapidly rolled out in order to alleviate infrastructure constraints such as transport, power, water, sewage, drainage, railway stations, *etc.* These should be put together by the Indian IFS industry, global PPP players, and multilateral institutions.

The exorbitant cost of real estate in

office space in a modern, well-specified office building in a prime Central Business District location. They include rent and outgoings, such as maintenance costs and property tax, but exclude rent-free periods, fitting-out costs and other leasing incentives.

Table 14.3: **Rankings:** Quality of physical and social infrastructure and living environment

		London	NY	Tokyo	S'pore	**Mumbai**	HK	Seoul	Sydney	Dubai
K1.	Quality/Availability/Cost of infrastructure: Power	9	9	10	10	**4**	9	10	10	10
	Water	9	9	10	10	**4**	9	10	10	8
	Telecommunications	9	10	10	10	**6**	10	10	10	10
	Transport	5	6	7	8	**2**	6	8	8	5
	Residential Space	7	5	5	7	**3**	7	8	8	7
	Office/Commercial	9	9	10	10	**3**	9	9	9	10
K2.	Leisure, Entertainment, Global Cultural, Recreational and Food Facilities	10	10	3	4	**2**	4	3	7	5
K3.	Use of English as the default international language at work and at leisure	10	10	2	9	**7**	5	3	10	6
K4.	Use of English as the default international language for financial contracts	10	10	5	10	**9**	10	5	10	10
K5.	Availability, Accessibility, Cost of healthcare and education (global standards)	5	5	6	8	**3**	6	7	8	6
K6.	Availability, Accessibility, Cost of personal and domestic services	3	3	1	5	**9**	6	4	2	9

Mumbai could inhibit its emergence as an IFC. Mumbai is said to have lost the BPO industry to Bangalore owing to its astronomical prices of real estate. Mumbai might end up losing the IFS industry to Dubai if this issue is not addressed. This involves repealing the Urban Land Ceiling Act, and new thinking on FSI.

Becoming an IFC also requires strengthening the spirit of tolerance which has always been a part of Mumbai's ethos. A healthy and hospitable city environment that can attract expatriates requires good residential facilities, office space, leisure, and entertainment facilities catering to international tastes, smooth enrolment processes at good schools, hospitals, colleges, universities, and sports clubs accessible to expatriates. Expatriates in an IFC should be able to use English in their interfaces with government, state or city officials.

Fresh thinking is called for revamping the city's administrative structure. In China, the four largest cities have been given provincial status; much like Delhi. But the sensitivity of state and local politics need to be taken into account in considering such an option for Mumbai; even if, theoretically, it might ensure better city governance and greater accountability of the city's policymakers to the urban electorate. If this solution is out of the question, the most critical priority is to transform the city's administrative structure in a way that creates a fully empowered if not elected 'manager' for the city, who can be held accountable for everything that goes right or wrong in Mumbai (without being able to pass the buck to the state government), and who is not required to be concerned about anything else.

Finally, ways need to be found to reduce the city's vulnerability to city wide bandhs, a peculiarly Indian phenomenon.

5. Improving urban governance in Mumbai

The sheer size and rapid but disorderly uncontrolled growth of Mumbai presents an unprecedented challenge in inducing the evolution of sound institutions for urban governance. Urban infrastructure consists primarily of residential and commercial space, supported by an array of services such as: adequate water supply for drinking and other uses; drainage sanitation and sewage systems; utilities such as electricity and gas distribution; adequate road, rail and water-borne urban transport and parking both public and private; primary as well as sophisticated secondary health care services that caters to all segments of the population; primary, secondary and tertiary educational facilities; and environmental regulation. The sound provision of urban infrastructure is intimately linked to decentralisation of economic and political powers to sub-national tiers of government, which flows from the 74th Amendment to the Constitution. There is a need to create fully empowered city government to manage the urbanisation process, while having political and financial accountability for it.

International experience suggests that without reforms in the institutional framework for urban infrastructure, central or state level government funds directed into the urban sector will not have the expected economic and social returns. Nor will they be appropriately directed for priority use. What Mumbai needs is not simply a few large eye-catching projects that require massive expenditures. What is needed even more is a transformation of the institutional structure that puts the long-run tasks of urban governance on a sound administrative footing.

The key problems are those of independence and accountability. Local/municipal governance functions in Mumbai need to be concentrated under an urban development authority (whether elected or appointed, although legitimacy would be enhanced if that authority was elected) that is directly accountable to the city's electorate. At present, decision-making on financial and governance matters concerning the city is split in a haphazard fashion across the Centre, State and City. This results in diffused responsibility, lack of coordination and disjointed planning; as well as a loss of financial independence for the city.

Financial allocations for the city made by central and state governments are

disproportionately low in comparison with: (a) the public revenues it generates and (b) its legitimate needs for infrastructure maintenance as well as planned urban growth and development. Unlike Delhi, other metropolitan centres in India are handicapped – in terms of having an independent trajectory for their growth and development – by not having their own revenue base nor any clear autonomous status within the present three-tiered structure of governance. It is a recipe that has brewed the twin paradox of having key Indian cities decaying rapidly in the face of even more rapid population growth. That will eventually change with the rate of urbanisation that is now taking place across India. But such change may occur too late to matter in making a difference when it comes to Mumbai becoming an IFC within the next 3–5 years and creating the administrative structure it needs for that purpose.

The Delhi Metro Rail Transit System (DMRTS) was inaugurated on December 24, 2002. Early indicators suggest that this may become a Metro system that can compete with that of New York, London or Singapore. As yet, a comparable system has yet to be built in Mumbai. It is particularly important to build transportation infrastructure in the form of a Metro to augment the suburban railways, along with intra-city and coastal expressways that link the island to the mainland, so that the mainland becomes a viable alternative for residential and business decision making. This would serve to decongest the city and improve the cost efficiency of IFS production in Mumbai.

When it comes to city financing, the foundation principle of urban finance has to be user charges for the occupation and use of city infrastructure. It is possible for urban institutions to access resources from capital markets to finance a large portion of urban capital expenditure, reflecting their future outlook for user charges and long term cash flows from property taxes. This approach makes it possible to increase capital expenditure rapidly on urban infrastructure in Mumbai without requiring recourse to Central or State finances. However, access to infrastructure and private finance cannot be sustained on a piece-meal, project-by-project basis. Increasingly, the sustainability of infrastructure development and poverty reduction programs will be determined by the overall management and creditworthiness of urban centres.

In terms of institutional structures, municipal functions in Mumbai are fragmented across many different corporations, agencies, and local government bodies with conflicting lines of accountability. Existing agencies for municipal service delivery are structured on functional lines with attendant implications for poor accountability, limited incentive for innovation in delivery of services, and limited use of private sector capacity to manage and finance services. There is no effective interface and almost no accountability connecting the city's administrative systems to its various decentralised communities. In particular, poor communities have almost no voice over city policies except through extreme forms of public resistance when their interests have been compromised beyond their limited abilities to cope.

In terms of fiscal problems, there is persistent under-performance on revenue collection with unsustainable tariff structures and non-transparent subsidy schemes. The general property tax system requires complete restructuring and modernisation. State and municipal governments need to deal urgently and fairly with the problems created by a legacy of rent control and especially the problem of pre-1940 buildings. In doing so, they have to recognize and respect the 'acquired rights' of long-term tenants that may exceed those of landlords who have only recently acquired such properties for speculative purposes under circumstances that would be questionable in law.

Moreover they have to deal more decisively with resolving the outstanding problems concerning the urban land ceiling renewal act. In Mumbai, low income households are often to be found at the regressive end of the fiscal system. At the same time, improvements in tax revenues and user charges are likely to be most acceptable in the context of concurrent improvement in the institutions of service delivery. This is perhaps analogous to the political acceptance of tolling highways *after* high quality highways came about.

At present Mumbai has limited creditworthiness, with opaque financial and accounting systems and primitive treasury management. The relative lack of transparency on a variety of public works contracts has emerged largely as a consequence of such lack of controls; coupled with individual discretion over budgets of a kind that generates perverse incentives inclined toward malfeasance. These need to be rectified before Mumbai can access capital markets, and make the needed institutional and fiscal reforms.

A program of transforming urban infrastructure in Mumbai therefore has dimensions of institutional, fiscal, financial and regulatory reform. Sector-focused reforms in service delivery – *e.g.*, a programme which focuses only on water and sanitation and solid waste – need to incorporate such institutional, fiscal, financial and regulatory dimensions to the reform package.

Solving the problems of Mumbai requires a shift away from an immediate focus on a few high-profile projects such as the second airport project or a metro project, and dwell more on building the institutional foundations for a healthy city. Although such projects are essential they are not the mainstay.

The central policy focus needs to be on the empowerment of the city government to take economic and service delivery decisions, as envisaged originally in the 74th Amendment. This will require a new framework for planning and implementing urban expenditures that is driven exclusively by the city government. It needs to address the current fragmentation of authority between state and local levels, support urban government oversight and accountability for urban functions, and support control of service delivery investments, operations and financing by the urban government.

The HPEC's recommendations

chapter 15

Throughout the chapters of this report a series of suggestions have been made either implicitly (*i.e.*, arising from the logic of the arguments made) or explicitly in the form of a specific change. These recommendations/suggestions have been arrived at bearing in mind that the ToR of the HPEC outlined a broad remit requiring the Committee to raise any issue that, in its view, impinged upon the success of an IFC in Mumbai. In some areas, the recommendations of the HPEC concern formulating an appropriate approach. In other situations, the Committee has crafted specific recommendations. In some situations, the Committee proposes a re-examination of certain issues by the Ministry of Finance, recognising their bearing upon the issues of achieving an IFC in Mumbai, but at the same time recognising that their resolution requires more detailed treatment, which impinges upon many other issues in economic policy. Putting both together, the HPEC believes it has articulated a set of immediate and medium term goals in the form of a roadmap to put Mumbai on a trajectory for becoming an IFC.

The HPEC is mindful that it has not been tasked specifically with looking into detailed matters concerning macroeconomic policies (ie fiscal, monetary, exchange rate, convertibility *etc.*.) financial regulation and regulatory architecture or, for that matter, the prevailing legal or educational systems. Nevertheless all these areas exert a considerable influence upon whether an IFC can be established in Mumbai and upon its prospects for success. Therefore they have attracted our attention and comment. Other Committees have looked into some of these issues. The HPEC has taken their findings and suggestions fully into account in its deliberations. That does not necessarily mean that it agrees with what has been suggested by others in every instance.

In most cases the focus of other Committees has not taken into account the possibility of Mumbai becoming an IFC. Their recommendations were crafted mainly in a domestic context. Therefore it should not be surprising that in some instances their findings may (implicitly) militate against the establishment and successful operation of an IFC. In many instances the HPEC recommendations may require further detailed scrutiny by specialists to convert broad ideas and suggestions for change into specific 'actionables'. With this background in mind, the HPEC has attempted to draw an appropriate balance in making its recommendations in terms of their width, specificity and depth. These are pulled together in coherent form below.

In recommending that policy makers opt for creating an Indian IFC in Mumbai, for a variety of strategic reasons of national interest, this chapter explicates what is implicit. It collates and clusters its recommendations under the following three pillars on which an IFC has to be supported:

1. The general ***macroeconomic environment*** in which an IFC operates and the policy framework that affects its operations and credibility in the global financial system.
2. The agenda for further ***financial system reform*** that needs to be carried through so that an IFC can operate on a viable basis. Such reforms include changes that need to be made in: (a) financial regime governance and regulation; (b) the development of 'missing' or weak markets; (c) the development of globally competitive institutions and financial firms; and (d) other policies concerning the financial system and ensuring that its growing need for qualified human capital are met.
3. The agenda for ***urban infrastructure***

and governance in Mumbai, particularly in the context of making it a hospitable global city for a large and demanding expatriate population that will be indispensable in the successful operation of an IFC.

1. The general macroeconomic environment

This report traces the origins of a tendency toward financial repression in India, given its development trajectory since independence, and the policy choices made under governing political economy pressures and constraints at different points in time. To a significant degree, the present problems of Indian finance, and therefore the future prospects of an Indian IFC, are rooted in legacies created by the size of the public deficit and how it has been financed over the last three decades. This assertion demands a digressive preamble.

India has run a high gross consolidated fiscal deficit (for the centre, states and contingent liabilities) – three to four times the size generally regarded as prudent as a percentage of GDP – for too long; particularly since the 1980s. That has resulted in expedient strategic and tactical options being resorted to for financing such a public deficit. These options, which perhaps were necessary at that point in time, in turn, have affected the evolution of the Indian financial system. They have bolstered public sector ownership of financial firms through 'balance sheet and profit-loss protection' as well as high barriers to entry and competition and the resultant suppression of financial innovation. A distorted INR yield curve – determined by the government rather than the market – accompanied by a reliance on captive bank rather than bond market financing, have been seen as pre-requisites for financing public debt at low cost. These tendencies are, axiomatically, anathema to markets and therefore to the prospects for establishing an IFC– which by definition requires a liquid bond market with undistorted interest rates.

The persistence and pervasiveness of ***direct*** rather than *indirect* forms of public intervention in the financial system (from ownership to directed lending) has compromised the early and smooth development of various financial markets and concomitant institutional structures in different financial sub-segments. It has prolonged the existence of too many inefficient, small, undercapitalised financial firms (public and private) that are incapable of withstanding the heat of global competition in almost every financial market segment. Thus the domestic institutional and market infrastructure that is needed for an IFC to operate is deficient in many important respects at the present time in India. So is the range of financial products and services that are offered and traded in Indian financial markets relative to those available in global markets. An IFC cannot function when the domestic-global gap is quite so wide.

With the policy choices made in the past it is no surprise that natural market discipline has been prevented from operating as it usually does in the financial system to induce efficiency and competition – *i.e.*, through time-tested processes of adjustment, adaptation, acquisition, merger, takeover and bankruptcy. Direct public intervention in the financial system (through ownership) has influenced, if not compromised, the policy objectives of ***financial regulation*** by inclining them toward the goal of protecting certain types of financial firms for social or political, rather than economic or commercial, reasons.

Regulatory objectives aimed at the *primary goals* of fostering prudence, soundness and stability of the financial system, have become inextricably intertwined with the *secondary goals* of protecting (implicitly or explicitly) the legitimate vested interests of the State as the largest single borrower from, as well as the largest single owner of, financial firms and markets in India. That multiplicity of objectives makes any system of financial regulation imbalanced and opaque; if not occasionally confused and contradictory, in attempting to accommodate too many irreconcilable but inherent conflicts-of-interest. Such a cocktail of multiple ingredients be-

comes even more potently dangerous when the conduct of an independent monetary policy is fused with the exercise of regulatory responsibility under circumstances in which the state as the ultimate regulator is implicitly protecting its own interests as a privileged economic agent as much as it is protecting the wider interests of a market financial system.

It is important for us to stress at the outset that, in tracing this history as a matter of fact, the HPEC does not question the legitimacy or propriety of what has happened and why. Nor is it advocating any particular ideological line. It is simply establishing the links between historical impulses, policy choices and market/institutional outcomes in the evolution of Indian finance since 1947. In opting, through a democratic process of choice, for a command-and-control type of economy between 1947 and 1992, the State had the legitimacy and the right to arrogate unto itself a special privileged position as a superior economic agent and driver of development; as well as the prime protector of wider social interests. That public choice was supported by successive electoral mandates.

But in shifting gears and transiting toward a market oriented economy – which is what the reforms of 1991 onwards were all about – the legitimacy and 'appropriateness' of that privileged position for the state as an economic agent, over other types of economic agents, has come into question. It causes systemic discomfort and dysfunction when the prerogatives and privileges of the State ***as an economic agent*** are maintained in a market economy which, by definition, does not recognise such prerogatives or privileges as legitimate or functional. Markets – whether financial or real – and market economies do not function as they are intended to when economic agents are differentiated in this fashion and when one type of agent (the State) maintains a privileged position over other economic agents in terms of access to natural or financial resources, pre-emption in the ownership of productive or institutional assets, or in access to factors that determine a firm's competitive abilities. That kind of differentiation and privilege of one economic agent over another strikes at the roots of what makes a market economy tick – *i.e.*, a level playing field, equality of opportunity, application of the same rules to all players across the board regardless of their ownership, no barriers to entry or exit, competition, innovation and adaptation through unfettered freedom.

The inescapable result of the accumulated legacy of pre-emptive and repressive policies in Indian finance has resulted in a 'lowest common denominator' approach influencing the outlook and mindset of financial policy and financial regime governance. These deficiencies began to be corrected with the onset of 'serious' reforms in 1991–92. Those reforms have gone far, wide and deep in the real economy resulting in a transformation of Indian manufacturing and of service industries such as IT services. But those reforms have not yet penetrated India's financial system to the same extent. Considerable progress has since been made; especially on public finance, with tax reforms and the passage of the FRBM Act. But key issues and concerns remain that HPEC is obliged to illuminate and adumbrate in the context of establishing an IFC:

1.1. On Economic Strategy, Fiscal Policy and Deficit Financing

1. An IFC in Mumbai would become credible and successful more quickly if India's overall economic strategy was aimed at **achieving and maintaining an average growth rate of 9% to 10% between now and 2025.** With 10% growth, India's nominal GDP expressed in US dollars is likely to double every 5–6 years. In terms of crude approximations, that would imply India's nominal dollar GDP increasing from $725 billion in 2005 to $1.3 trillion in 2010. It would increase again to $2.5 trillion by 2015, and $10 trillion by 2025. Such growth would create a favourable environment for an IFC in Mumbai to capture a huge hinterland advantage. These rates of growth are achievable. Indeed they may be the only way of generating sufficient public resources to deal with poverty, fiscal

deficit, and public debt reduction all at the same time. When GDP is $10 trillion, a government that spends 2% of GDP on welfare programs puts itself in a position to transfer about Rs. 4,000 per person per month to the poorest one-sixth of the country's population. Clearly, a 10% real rate of growth cannot be achieved unless extant, binding infrastructure and governance constraints are relieved. Those key objectives would be facilitated by India having its own IFC in Mumbai.

2. Despite the FRBM Act and a number of other measures that have been taken, insufficient progress has been made toward **reducing the gross consolidated fiscal deficit (GCFD) to 4–5% of GDP.** More progress needs to be made to underline an unshakeable GoI commitment to establish the fiscal foundations for a rapidly growing – but still 'developing' – economy in which a 'newcomer' IFC must operate credibly. **No IFC has taken off or thrived in any economy where such sizeable deficits have been incurred for so long.** Global markets are deterred from participating in IFCs whose home economies are fiscally incontinent because of a chronic inability to align public expenditure with public revenue. Large deficits (and the build-up of an overhang of public debt) pose a latent threat to systemic stability in the event of endogenous or exogenous shocks. Confidence in the INR is diminished in such an environment. For that reason, if having an IFC is a strategic objective to be achieved by India (and for other obvious reasons as well), then governments at all levels (central, state and local) need to exert greater political will over the next five years and beyond to reduce their respective fiscal deficits.

3. Related to the deficit reduction target (and contributing to its achievement) **the HPEC would recommend progressive reduction of the total public debt to GDP ratio from the current level of 80% of GDP to significantly less**. That reduction has already begun. It must be sustained. **The HPEC did not reach a consensus on any particular debt/GDP ratio as a ceiling.** It has done no detailed work on the range that would be appropriate; that was not its primary mandate. By way of illustration, however, it does suggest that ratios of 50–65% have been adopted by different countries as being indicative of prudence. India needs to establish its own ratio for a debt/GDP ceiling after careful study, as a natural accompaniment to the FRBM deficit reduction targets. That ceiling should suggest to global markets India's commitment to fiscal prudence at all levels of government. Total public debt in this context would mean the outstanding long and short term debt of central and state governments, as well as the debt of PSUs guaranteed (directly or indirectly) by GoI, and all contingent liabilities of central and state governments incurred through off-balance sheet financing or quasi-fiscal accounts. When these adjustments are made, the true debt/GDP ratio of India is well in excess of 80%. Public debt reduction depends, to a large degree, on fiscal deficit reduction. But it can be accelerated through programmes of public asset sales at all levels of government. Such sales would galvanise capital markets, spur growth and result in more foreign investment (portfolio and direct) to achieve a higher growth rate.

4. In restructuring tax revenues to achieve deficit reduction, particularly in the context of an IFC and the effects that taxes have on influencing financial system evolution, **the HPEC would recommend, broadly, that tax policy should implement the key principles determined by a series of expert committees starting from the mid 1980s, and leading up to the FRBM Task Force Report of 2004.** This involves a simple tax code, with administrative efficiency, low tax rates, removal of exemptions, and a tax system which places the main burden of taxation on consumption rather than income or saving. From an IFS perspective, **the HPEC recommends eliminating transactions taxes in the form of the Securities Transaction Tax (STT) and**

stamp duties. The former requires actions by the Ministry of Finance, while phasing out the latter needs to be synchronised with the shift to the two part Goods and Services Tax (GST) and integration of the real estate sector into the GST. **HPEC does not see the need for a tax haven, or even temporary tax breaks, as concomitants to having an IFC in Mumbai.** But it does recommend **applying GST to the financial services industry**. This will require appointment of a technical committee to work out the mechanics of how this should be achieved.

5. In financing the fiscal deficit, over-dependence on the domestic financial market needs to be reduced. GoI should continue reducing reliance on pre-emption or quasi-pre-emption through the financial system. Public debt should be financed in domestic and global bond markets. Such markets are willing to finance the public deficit by buying **INR denominated** GoI notes and bonds. **The purchase of INR denominated instruments issued by GoI should be open to anyone across the maturity spectrum from 7-days to 30-years.** This opening-up should be done in two steps, so as to postpone foreign investment into short-dated bonds. This would automatically reduce pressures on the domestic financial system and on: (a) crowding out private investment; (b) interest rates; (c) the balance sheets of PSU banks and other financial firms; (d) continued public sector ownership of financial firms; and (e) keeping the capital account partially closed thus thwarting or delaying full convertibility of the INR.

6. **The budgets and 'balance-sheets' of state governments and major metropolitan municipal corporations (and other local authorities as well) need to be restructured.** That would permit sub-sovereign governments to become 'solvent' and resort to market financing rather than depending on GoI support and direct/indirect financial guarantees. Doing so would have the triple effects of: (a) exposing sub-sovereign governments to the discipline of the market; (b) creating new financial markets in these segments thus adding to the width/depth of a bond market in India that is, at present, lacking in both; (c) expanding the array of IFS that could be provided by an IFC in Mumbai.

7. **Shift the burden of future infrastructure investment from the public to the private sector through PPPs** : *i.e.*, *public private partnerships* involving private finance – from the domestic and global markets – to provide public goods and services on an appropriately structured basis that avoids the risk of 'privatising profits while socialising costs'. Greater resort to PPPs would: (a) resolve the financing constraint facing infrastructure investment in India which requires staggering amounts of funding; and (b) also provide an opportunity to hone a special competitive edge in the IFS provision capabilities of an IFC in Mumbai.

1.2. On Monetary Policy and its Implementation/Execution

8. The creation of an IFC in the 21st century inevitably requires an open capital account if the IFC is to: (a) function with a modicum of efficiency; (b) provide the full array of IFS; and (c) be viable/successful and globally competitive with other IFCs/GFCs within a conscionable time-span. But, with large fiscal deficits being run, the task of managing monetary policy – with an open capital account in a rapidly growing, developing economy like India – becomes more complicated that it presently is. When faced with such a situation, **the implication for the monetary authority may well be that –** in keeping with regimes that characterise economies with successful IFCs– **it needs to consider focusing exclusively on the single task of managing a key short-term 'base rate' to maintain price stability (*e.g.*, inflation being kept within a range of 3–4%), consistent with supporting a high growth rate (8–10%).** As global experience with managing monetary regimes in the

more successful economies suggests, achieving that prime objective is critical. It may be so crucial in the Indian 'high-growth requirement' context that all other subsidiary functions now performed by the extant monetary-cum-regulatory authority may need to be divested to agencies that specialise in undertaking them. In particular, **the monetary authority should not be placed is a position where: (a) it is obliged to manage multiple conflicts-of-interest; and (b) runs the risk that managing such conflicts might lead to sub-optimal decisions on adjusting the base rate as evolving internal and external circumstances impinging on the economy might demand**. Confidence in an Indian IFC will be enhanced if the monetary authority is *seen* to be free of these conflicts of interest. As part of this framework, t**he HPEC believes that the function of a public debt management office should be either completely independent – in the form of an autonomous agency – or placed in the Ministry of Finance rather than in a regulatory institution to avoid any perceptions of conflicts-of-interest in the eyes of regulated financial firms**.

9. **Managing monetary policy under changed circumstances will require fundamental reconsideration of core issues** such as: (a) the viability of maintaining a 'stable' exchange rate for the INR; (b) whether that rate should be managed around a notional central USD peg or a different trade/investment weighted currency basket; (c) whether official intervention in currency markets to 'stabilise' the INR should occur, except in extreme (market failure) circumstances; (d) ceding a 'stable exchange rate policy' in favour of monetary autonomy, thus putting the burden of adjusting to a more variable exchange rate on private actors and the government, while **creating more risk management possibilities (through currency derivatives) that make such adjustment easier**; (e) a focus on 'inflation targeting' and examining carefully whether such a focus makes sense in an economy that is still subject to price manipulation of some 'big prices' (*e.g.*, energy price) that feed through the economy and have an impact on all other prices as well; and (f) the gradual evolution of the INR into becoming a global reserve currency by 2025. **These issues, which have also been examined tangentially by the Tarapore-2 Committee on CAC, need to be looked into further by a specialised expert technical committee.**

10. The debate on convertibility is primarily about avoiding the currency crisis and banking crises which came about in countries such as Mexico, Thailand, South Korea and Indonesia in the last decade. These failures are understood to have been caused primarily by flawed currency policies, and these pitfalls need to be carefully avoided. Taking into account the balance of risks evaluated by many previous committees and experts, **the HPEC is of the view that the capital account needs to be liberalised more rapidly and in a time bound fashion than is presently envisaged. CAC needs to be achieved within the next 18–24 months – *i.e.*, by the end of calendar 2008 at the latest – preferably sooner.** That is required partly to ensure than any IFC established in Mumbai has a fighting chance of succeeding. At the same time, this policy is what the Indian economy and financial system need at this critical juncture. The capital controls that are now in place: (a) pose a high (if not insuperable) barrier in practice, to Indian financial firms offering IFS in the global market and hobble them in competing against global firms in the context of increasing *de facto* convertibility; (b) deprive these firms from earning significantly higher export revenues; (c) delay the development and acquisition of core IFS-provision competencies; (d) reinforce protectionist barriers to entry in the Indian financial system thus rendering it inefficient, uncompetitive and more costly in terms of basic financial intermediation; and (e) inhibit essential financial system

liberalisation from occurring as swiftly and to the extent that it should.

2. Further Financial System Liberalisation and Reform

The HPEC's recommendations and suggestions under this heading fall into four broad categories: (a) financial regime governance and regulation; (b) the development of 'missing' or weak markets; (c) the development of globally competitive institutions and financial firms; and (d) other policies concerning the financial system and ensuring that its growing need for qualified human capital are met.

2.1. On Financial Regime Governance and Regulation

11. Financial regime governance in India must now be transformed in the same way that governance of the 'real' economy was transformed through the 1990s to make Indian manufacturing firms more efficient and globally competitive. Indian financial firms and the financial system need to be exposed to the same discipline, in order to adjust in the same way, to achieve the same goals. **There is an immediate need for the Indian financial system to become more open and outward-orientated to enhance its technology, efficiency, productivity, competitiveness and quality.** Without such transformation the emergence of a credible IFC in Mumbai could not be contemplated.

12. **Such a transformation is essential** not just to enable the export of IFS from an IFC in Mumbai. It is essential **to make the entire financial system more efficient so that it can provide world-class financial services to the domestic market and intermediate financial resources more efficiently for use in the real economy as well.** At present the Indian consumer of financial services is poorly treated, and served at a higher price than his counterpart in more developed financial systems. Similarly the Indian economy, in attempting to achieve higher growth rates (9–10%) than it has proven capable of over the last four years (8%) needs a financial system that mobilises resources more efficiently, and does not waste or divert scarce financial resources through sub-optimal allocation.

13. **Financial regime governance needs to change fundamentally across the board** if an IFC is to be allowed to emerge in Mumbai for two reasons:
    * The quality, flexibility, adaptability and 'lightness-of-touch' of *financial regime governance*, is an integral feature of a country's ability to provide and export IFS successfully and to establish a successful IFC for doing so. The importance of that assertion is brought home with particular force when even a well regulated (by world standards) jurisdiction like New York is faced with becoming less competitive by the day in the face of regulatory competition from a better, more responsively regulated regime in London. By the same token, IFCs like Paris, Frankfurt and Tokyo that are perceived by global markets as over- or unpredictably-regulated, do not make the frame when it comes to competing globally. Financial regulation is not, therefore, a feature that can be treated independently and 'left alone' when it comes to considering what a new IFC needs in order to compete effectively in the global arena.
    * A financial regulatory regime is counterproductive for an IFC, or for encouraging the emergence of a dynamic domestic financial system, if it: (a) is too risk averse; (b) is prepared to erect severe roadblocks to 'financial traffic' or even stop it in order to avoid any probability of an 'accident' occurring; (c) reacts negatively to financial innovation or new proposals for products or services; (d) tends to ban financial products, services, players or markets; (e) issues rules that limit

the success of products/services even when they are not banned; (f) discriminates in its treatment of firms based on their ownership or origin; (g) is protectionist in its rules and regulations and in the manner of their application in practice: *i.e.*, effectively or implicitly favouring certain firms while disfavouring others; (h) discourages – through a policy of intervention, intrusion and regulatory micro-management – voluntary, self-induced risk-management, and corporate governance of high standards, on the part of the financial firms being regulated; (j) discourages vibrant competition and financial innovation from occurring in the financial marketplace; and (k) artificially compartmentalises different segments of financial markets while forcing them to remain apart – for regulatory convenience rather than market efficiency – thus reducing liquidity and trading opportunity in each segment as well as diminishing arbitrage and risk-transformation opportunities than enable financial markets to innovate.

14. But financial system regulation in India (which is of a high technical quality if more contentious in terms of its overall orientation, policy and approach) is not the only issue. Other aspects of financial regime governance – especially **the functioning of the legal system** – leave much to be desired. They **must be improved to increase the prospect of establishing an IFC in Mumbai.** If they are left unattended, some glaring deficiencies in the capacities, knowledge-base, and the administrative functioning of these critical systems for dispute settlement and conflict-resolution (especially given the way in which civil cases proceed through the legal system with interminable delays) will prevent an IFC in India from ever emerging or competing effectively in the global marketplace.

15. **HPEC therefore recommends that urgent action be taken to remedy these short-comings with suitable reform of the legal system**. If that cannot be done relatively quickly then, in the interim, consideration should be given by policy-makers to establishing a special system of fast-track 'financial' courts and special arbitration mechanisms to deal with the legal and regulatory complexities that an IFC and the provision of IFS will create. **This could mean creating an International Financial Services Appellate Tribunal (IFSAT), covering all parts of finance. IFSAT should offer a comprehensive appeals procedure against all actions of all financial regulators, where judges have specialised financial domain knowledge**. The specific measures needed to effect improvements in this area will require scrutiny by other experts and specialists before this broad recommendation can be translated into a series of specific actions and remedial measures.

16. To improve the knowledge-base and professional competencies that an IFC in Mumbai will need to function and compete effectively, **the HPEC recommends that domestic space be opened up without any restrictions (such as insistence on domestic partnerships or joint ventures) to permit immediate entry into Mumbai of: (a) well-known global legal firms (corporate or partnerships) that operate in other IFCs and especially the three GFCs; as well as (b) all global accounting firms, tax advisory, information technology, business consulting and education firms that support the IFS industry.**

17. From the 'wall-chart' that has been derived for this report, to depict illustratively the barriers and impediments that operate on Indian financial firms of various types, effectively preventing them from providing IFS to a global clientele, three sets of issues emerge regarding the financial sector in India. They include: (a) implications for ***competition policy*** that governs activity in the financial system; (b) artificially tight ***compartmentalisation*** of financial markets with

little 'crossover' being permitted across boundaries; and (c) the impact that both these influences have on suppressing ***financial innovation*** in India.

18. **In each of these areas the HPEC recommends that policy-makers revisit carefully the nature of the financial regime governance so as to make it more competitive, less fragmented, and more innovative.** Operating together, these three factors prevent Indian financial firms from realising the economies of size, scale and scope they need to exploit to compete globally.

19. **The HPEC further recommends that this regime be opened up** to permit a greater degree of competition (domestic and foreign) and induce a more rapid rate of innovation that will permit Indian finance to catch up with the rest of the world within the next 5 years and operate along global lines thereafter. **By the same token it recommends that the excessive compartmentalisation that has occurred across different financial market segments be reversed.**

20. In the view of HPEC, the artificial **barriers that have been erected between different segments of the financial market – *i.e.*, banking, insurance, capital markets, asset management activities, and derivative markets – so that they can be regulated separately by different regulators should be dismantled**. Whether regulators are separated or not, the financial sector needs to operate as a seamless whole in order to achieve global standards of market efficiency, competition and innovation. This may be inconvenient for regulators. **But, in the view of the HPEC, regulatory arrangements and architecture should be rearranged to meet the market's needs; rather than having the market rearranged in order to meet the demands of regulatory convenience.**

21. **In the view of HPEC, artificial obstruction to greater competition in the financial sector now needs to cease**. A process of 'creative destruction' needs to be unleashed in Indian finance to make it more dynamic, globally competitive, and to let financial firms emerge that are of the right size and scale to take on global competition. That is precisely what was done in the industrial sector during the last decade when over one thousand firms disappeared but were replaced by fewer but larger, more efficient and more competitive industrial firms.

22. But that also means having the Government prepare an 'exit strategy' through reduction in its ownership of financial firms. As a shareholder it is perfectly rational for the government to act in this manner to protect its shareholding interest and the value of its equity stake. But from the viewpoint of the welfare of the Indian market economy, and to a lesser extent of having a credible IFC, that policy is counterproductive and myopic. It results in the inefficient use of public resources at a time when greater efficiency is demanded to attain and sustain a high growth rate. The logic of the argument suggests that the state should withdraw gradually, at a pace dictated by *realpolitik*, from being a shareholder in any financial firm.

23. By doing so it would avoid the serious conflicts of interest. In terms of a possible timeline, **the HPEC would suggest that the legislature contemplate a general policy of reducing the state's present shareholding in all types of financial firms to below 49% by end-2008, below 26% by end-2010, and toward a full exit by 2015.**[1] If this trajectory of withdrawal is not put in place the prospects for an IFC in Mumbai emerging as a credible and competitive centre in the eyes of the global financial market will be compromised.

24. **Over the next 3–5 years the HPEC recommends that the Indian financial regulatory regime makes a much needed and overdue transition from: (a) a rigid, inflexible and overly-**

[1] A few members disagreed with this recommendation. However, this was the majority view and is hence retained as the HPEC position.

prescriptive 'rules-based' regime under which the regulator and regulated adopt adversarial and antagonistic postures vis-à-vis one another; to (b) the more flexible and state-of-the-art 'principles-based' regime or PBR pioneered in the UK by the Bank of England and embraced and applied enthusiastically by its supervisory successor, the FSA. PBR is becoming more popular around the world. A decade's experience with it in the UK and elsewhere suggests that it is more effective. The PBR regime is more open, flexible and user-friendly. It does not expect regulators to perceive 'non-compliance' as the natural default setting of regulated firms. It is non-adversarial and more co-operative. It expects regulated firms not only to obey and comply with the letter-of-the-law (*i.e.*, what is codified) but also with its spirit (*i.e.*, compliance with what may be uncodified because it was not anticipated, but was intended in any event). For financial firms, PBR is much more demanding, since they are required to adhere to the spirit of the law, and not just the letter. Such a transition will require a major mental adjustment on the part of both Indian regulators and financial firms for many of which 'beating-the-rules-of-the-regulator' has become an essential game in order to secure marginal competitive advantage over rival firms.

25. Adopting practice that is now normal in almost all OECD countries, **the HPEC would recommend that GoI conducts** – using independent, impartial interlocutors, including regulators from other IFCs– **a periodic (3–5 yearly) Regulatory Impact Assessment of the financial regulatory regime.** The RIA would aim to evaluate, using enhanced cost-benefit methodology, how efficient and cost-effective extant regulation (policy, practice, application, and institutional arrangements) is in meeting the main regulatory objectives, and to understand what modifications are needed to improve it.

26. Finally, in keeping with the recommendations made above for improving regulatory approaches and practices, there may be a corresponding need for an accompanying change in ***regulatory architecture and arrangements*** governing the financial system as a whole and, less importantly, to permit a credible IFC to emerge. Such a change, if made only to satisfy the needs of an IFC, would be akin to "a very small tail wagging a very large dog". The change has to be made for the sake of the financial system as whole and not just for the sake of having an IFC. But, in suggesting this, the HPEC observes that the interests of the financial system as a whole, and those of an IFC, happily coincide.

27. When it comes to reconsidering regulatory architecture – whose foundations were set as early as 1934 with the original RBI Act, although many amendments have been made since – India has three options, *i.e.*,:
    a. Keeping the extant architecture in place but with improved co-ordination and co-operation to reduce regulatory conflict, turf-protection, and achieve coherent, consistent regulation across the entire financial system
    b. Partial consolidation of extant regulators into a tightly knit quartet covering: (a) banking; (b) insurance; (c) pensions; and (d) capital, derivatives and commodities markets. Any area of activity that did not fall neatly or obviously into these four categories would be regulated automatically by the capital markets regulator. In other words activities such as asset management and mutual funds would fall under the purview of the capital markets regulator, as would regulation of the sovereign and corporate bond market. Under such an arrangement, regulators of specific types of institutions (*e.g.*, banks or insurance companies) would not have the right to regulate other domains/market segments (*e.g.*, capital markets) in which banks or insurance companies

(and/or their subsidiaries/affiliates) might operate. Domain regulation would be the responsibility of the functional domain regulator regardless of the institution that wanted to operate in that domain; whether directly or through another corporate arrangement. The regulatory quartet would be presided over by a regulatory co-ordination committee chaired by the regulatory agency that regulates the largest part of the financial system.

c. Evolve rapidly toward unified regulation with a single regulator for all financial services to avoid problems of co-ordination or of matters falling between regulatory cracks when regulation is more fragmented.

28. **The HPEC is mindful that** in large federal countries like India and the US with a legacy of multiple regulators **policy-makers must consider the pros and cons of these different options and tread carefully**. The evidence being generated from the twenty odd countries that have adopted UK style unified regulation on a 'principles-based platform' is that it works well. But many regulators more firmly wedded to tradition argue that one decade is not a sufficient period to be conclusive about its unquestioned superiority. The quality of a regulatory system can only be tested when it comes under severe strain. The counter-argument is that the UK model actually works toward minimising the risk of such strains appearing in the first place. Moreover, in an imperfect world, there may be as many problems with having a regulatory monopoly (the lack of regulatory competition may also impede innovative thinking) as with a regulatory oligopoly differentiated by activity or market segment.

29. For that reason, while conceptually attracted to the unified, principles-based regulatory approach as the model for the future – *i.e.*, the ideal that India should strive for in the long run – **the HPEC's view is that movement in that direction should proceed at a pace that reflects the regulatory system's absorptive capacity for such change**. Such a move may trigger legitimate concerns about technical and other problems that may be caused by changes in the long-established operating domains of extant regulatory agencies. But, after careful consideration of all the pros and cons, policy-makers may still conclude that rapidly changing circumstances – of the kind that are impelling the next phase of financial system development and calling for the creation of an IFC in Mumbai – require swift changes in regulatory architecture. They may wish to expend the political capital needed to move toward more unified regulation now rather than later. In that event, the HPEC would concur with movement toward more rapid reform. But, whatever is decided by policy-makers on reforming regulatory architecture, the HPEC would **recommend an early, if not immediate, migration from 'rules-based regulation' to 'principles based regulation' even under the extant architecture.**

30. As far as financial system regulation is concerned two key priorities need to be addressed and enshrined in new legislation: (a) the regulatory approach and mindset adopted; and (b) regulatory architecture. **The present series of disparate legislation governing the Indian financial regime needs to be revamped and redrafted into a new Financial Services Modernisation Act that embraces a 'Principles Based Regulation' approach**, as articulated in Chapter 11.

31. **A key task in reforming regulatory architecture is to place all regulatory and supervisory functions connected with all organised financial trading (currencies, bonds, equities, corporate bonds, commodity derivatives; whether exchange-traded or OTC) into SEBI**. This requires collecting together elements of law that are presently dispersed across many other acts, including the RBI Act, the FC (R)A, the Companies Act, *etc.*. The objectives of SEBI,

under the new law, should replicate the objectives and approach of the UK-FSA. This requires closely studying the UK FSA and the FSMA, the US CFMA and the regulatory and legal foundations used in Ireland. **The new law governing financial system regulation should articulate broad principles, and provide sufficient flexibility for more rapid financial innovation. It should embed the distinction between wholesale markets and retail markets, where a much lighter regulatory touch is applied to wholesale markets**.

32. **The proposed new Act should also embed a redrafting of the Banking Regulation Act (BRA), shifting towards principles-based regulation, and giving banks greater flexibility in operations and management than is presently the case**. There is considerable merit in merging the new securities law and the new banking law into a unified financial sector law (the Financial Services Modernisation Act), even if the two regulatory agencies continue to be distinct. This would underline the unity of finance, and increase the extent of coherence found in different parts of finance. As an example, the creation of the proposed International Financial Services Appellate Tribunal (IFSAT) which would provide an appeals procedure covering all aspects of finance is best done within an Act which covers both banking and securities.

33. Finally, when it comes to financial regime governance, the HPEC believes that **India should immediately open up to Direct Market Access (DMA) on Indian exchanges to match the situation with foreign exchanges in other IFCs that provide a hospitable environment for algorithmic trading.** That would enable India to compete as an IFC venue for global firms in this important market segment.

2.2. On 'Missing Markets'

34. As has been elaborated upon at some length in the report, an Indian IFC is handicapped by three key markets that are 'missing' in India's financial system: *i.e.*, (i) a properly functioning, liquid corporate and sovereign **bond market**; (ii) a spot **currency trading market**; and (iii) a broad **derivatives markets** that includes exchange traded as well as tailored derivatives for the management of **currency, interest rate, and credit default risk**.

35. These three markets, termed the ***bond-currency-derivatives* (BCD*) nexus*** in this report, are inter-woven by currency and interest rate arbitrage. In an efficient market, the currency forward is only a reflection of current and expected interest rate differentials across currencies. A number of sophisticated trading strategies employed by global financial firms (using sophisticated quantitative finance models to drive algorithmic trading) bind together all traded products of the BCD nexus. No IFC can function (or even become an IFC) in the absence of any of these BCD markets. If India is to have an IFC in Mumbai, the **HPEC would place emphasis on having these 'missing' BCD markets develop rapidly**.

36. A domestic bond market, in which global investors can participate on the same basis as in other IFCs, cannot operate without having an established INR yield curve that is arbitrage free, liquid and well-traded along maturities ranging from the very short (7-days) to the very long (30 or 50 years). A bond market operating along global lines is propelled by the monetary authority setting the short (base) interest rate at which banks can borrow from it. The market arbitrage process in a free and liquid bond market translates such base rate changes into changes in long rates over different maturities; based on expectations about policy stability, the market view about the monetary policy rules in operation, expectations of the future direction of domestic interest rates, inflation and external conditions.

37. In India, the INR bond market is limited and stunted. It is a market in which the monopoly trading platform for bonds is

managed and governed by the monetary authority rather than by a securities exchange. This is a sharp departure from global practice. The framework of existing regulations permits neither liquidity nor arbitrage. Nor does it have bond issues reflecting a wide spectrum of credit risks through the inclusion of corporate issuers. The bond market is dominated by sovereign issues that have no credit risk given the government's right to print money in INR. Moreover, the market's institutional structures are weak, participation is artificially constrained by a number of eligibility and origin barriers, speculative price-discovery is lacking because of the absence of arbitrageurs, option-writers and speculative risk-takers who are barred from operating in this market.

38. But a bond market in an Indian IFC needs to also issue and trade bonds in currencies other than the INR. Indian and foreign corporate borrowers may wish to choose, in an Indian IFC (as they could in any other IFC), to issue bonds in a wide range of globally traded or even exotic currencies to optimise their borrowing costs using derivatives to cover future currency and interest rate risk. They may want to issue a long-term bond in INR and immediately swap it into another currency with built-in provisions for a reverse swap when repayment is due on maturity. At present they can do none of these things.

39. The R.H. Patil Committee Report on domestic debt markets made a number of far-reaching policy, operational, and technical recommendations. In the view of HPEC, these should be implemented as soon as possible to make domestic bond markets function more efficiently and to perform the important economic role that such markets play. To the Patil Committee's many recommendations, and from the viewpoint of internationalising the Indian debt market as a key building block for creating a viable IFC in Mumbai, **the HPEC would add the need to: (a) bring all securities trading markets (including those for sovereign debt) under the regulatory purview of the regulator responsible for securities trading, ie SEBI; and (b) to ensure that the platforms for trading all such debt instruments are transferred to the NSE and BSE.**

40. **Short selling of bonds is of fundamental importance for obtaining an arbitrage-free yield curve. This requires the ability to borrow bonds. A borrowing mechanism needs to be setup by exchanges, to enable short selling in government bonds, corporate bonds and equities.** This needs to be done in an integrated way, for all three kinds of securities, so as to harness economies of scope and scale.

41. At present INR bond purchases by FIIs are constrained by quantitative restrictions whereas equity purchases are not. **An essential step for increasing the presence of INR denominated bonds (and the INR yield curve) in global investment portfolios (*e.g.*, of globally managed pension funds) is to remove the existing quantitative restrictions so as to put INR bond purchases by FIIs and other foreign buyers wishing to purchase INR denominated bonds in global markets on a par with their equity purchases.**

42. At present, there is a small currency derivatives market and a small interest rate derivatives market where trading of primarily vanilla products takes place over-the-counter (OTC). However, there is a considerable advantage in transparent trading of vanilla products on the exchange platform, particularly given the dramatic progress of electronic exchanges and algorithmic trading. Electronic trading and transparency assist liquidity, and it is easier for India to compete in the global IFS market by emphasising order flow into electronic exchanges – where objective characteristics of liquidity matter more than human relationships and counterparty risk. Hence, **there is a need to shift trading in vanilla products (futures, options, swaps) to exchanges**

while retaining and expanding the OTC trading of transactions for exotic and tailor-made products.

43. Vibrant trading, on exchanges, of interest rate derivatives is a fundamental part of the BCD nexus. India's experience with interest rate futures has been an unfortunate one, with banks being prohibited from participating in the market except as short sellers of interest rate futures. **The Ministry of Finance needs rapidly to take stock of the constraints that hold back exchange-traded interest rate derivatives, including futures, options and swaps, and obtain the requisite modifications of regulations of insurance companies, banks, mutual funds and FIIs so as to get this critical component of the BCD nexus off the ground immediately**.

44. By the same token, markets for trading global currencies (spot and derivatives) are the lifeblood of an IFC. Every customer buying IFS generates a series of immediate transactions on the currency spot market and covers exchange risk with currency derivatives. That is true whether a global investor operating in a Mumbai-based IFC wants to buy Indian equities, bonds, index funds, or index derivatives. As India's growth continues over the next decade the INR will join the global club of major currencies. By 2015 these will comprise the USD, EUR, JPY, GBP, CNY and INR: the reserve currencies of the world. **That requires establishing immediately a currency trading exchange in Mumbai, with a minimum transaction size of INR 10 million** (or roughly US$ 225,000 at present exchange rates). **Initially, this market should be open to domestic and foreign financial firms including FIIs; opening to individual traders should be deferred until the INR becomes fully convertible. Establishing a wholesale but fully-fledged currency market will require removing those capital controls that presently disallow financial firms from holding multicurrency deposits with banks.**

45. **This wholesale currency spot market needs to be accompanied by an INR cash settled currency derivatives market, offering products such as currency futures, currency options and currency swaps, traded on India's established exchanges. The currency derivatives market should be open to all (including FIIs).** It must aspire to replace the trading that presently takes place on the INR-NDF market. Regulatory responsibility of the suggested currency market – spot and derivatives, exchange and OTC– needs to be shifted to SEBI.

46. Contracts involving the four major globally traded currencies (ie USD, EUR, JPY and GBP) are well established and account for the bulk of global trading in spot and derivatives markets. A number of smaller countries in OECD with open capital accounts offer traded contracts in their own currencies against these four global currencies. The INR trading market could be networked into and piggy-back off trades in these markets. An INR market could quickly dominate trading in INR vs. the four global currency contracts. But it should seek to also establish a first-mover advantage in trading new contracts involving: (a) the INR vs. other tradable but exotic currencies such as the Australian, Canadian, Hong Kong, New Zealand and Singapore dollars, the various Scandinavian kroners, and Swiss franc; as well as (b) emerging market currencies (under special arrangements with their central banks) of countries with which India is likely to have growing trade and investment links such as the Malaysian dollar, the Thai baht, South African rand, the Russian new rouble and the Brazilian real. It could develop pass-through contracts between the INR and currencies that are loosely or firmly pegged to the USD (*e.g.*, the HKD and SGD as well as a range of Gulf currencies) but lacking in formal arrangements to protect the peg. The possibilities are limitless and must be left to the ingenuity of indigenous and global market operators and arbitrageurs

to develop and exploit. Some contracts will fail to attract trading volumes and die a natural death. Others (like the INR/CNY contract) may trade in volumes that, in a decade, could rival the volumes of traded contracts across the four global currencies.

2.3. On Weak Institutions

47. Side-by-side with weak or missing markets, the Indian financial system has a number of weaknesses in the make-up, diversity, skill sets, competitiveness and size of its financial firms. India's equity and limited derivatives markets are dominated by trading done by private firms and FIIs although public institutions in the insurance and mutual funds industries are also large players in these markets. That bias in institutional structure, in all financial markets other than the equity market, gives Indian financial firms an excessive 'home bias' in their operational orientation and handicaps them from developing global reach beyond the NRI community.

48. That feature also disables Indian financial firms from competing on level terms with foreign counterparts in global IFS markets. It will constrain the development of an IFC in Mumbai. For example, the ten largest global financial conglomerates (comprising, under a single brand umbrella like Citigroup or HSBC, subsidiaries or affiliates that are commercial banks, investment banks, insurance companies, securities brokerages, global fund managers, hedge funds and derivatives operations) all have a balance sheet size exceeding US$1 trillion. The top four or five now have a balance sheet size approaching or exceeding US$2 trillion. In India, the largest financial group (SBI) has a balance sheet size of around US$160 billion; or less than a fifth that of its 'smaller' foreign counterparts when India is the fourth largest economy in the world in PPP terms and the seventh largest in nominal terms.

49. Such a large relative difference in the size of Indian vs. global financial firms, when the relative difference in the size of their respective home economies is smaller, deprives Indian financial firms of the ability to realise greater economies of scale and competitiveness within their internal structures. It reflects the in-built advantage that foreign financial firms have established in operating globally in an unfettered manner for several decades when Indian financial firms have been constrained from doing so. International financial firms have a presence in all aspects of finance, while Indian financial firms are hemmed into slots defined by over-compartmentalised financial system architecture. This increases the risks of Indian financial firms. They have less diversified sources of profit. It results in Indian financial firms requiring intermediation spreads to cover costs that are higher than international norms. It disables them from operating successfully in a global marketplace where substantial resources have to be expended to establish a globally accepted brand identity, and to invest capital in globally sized operations for: commercial banking, investment banking, securities broking, derivatives trading or insurance.

50. The same is true of Indian investment banks. At present, they are anaemic replicas of their global counterparts, despite their considerable reserves of human capital and their core competencies. Earlier a number of joint-ventures were created (largely to accommodate Indian entry barriers at the time) between established and reputable Indian financial houses and nearly all the major global investment banks. These joint ventures are now coming apart. That raises questions of how the Indian partner 'divorcees' from these 'arranged marriages' will evolve in the future. While they may have the human capital, they certainly do not yet have the size of financial capital they need.

51. What is said about commercial and investment banks above applies even more to the indigenous securities

brokerage industry. It is a far cry from achieving the size, efficiency, capability or capital of its foreign equivalents. The Indian brokerage industry exhibits many of the same symptoms and malaise as India's retail sector in general. It is dominated by a landscape of 'mom-and-pop' shops and single proprietorships masquerading as companies. They do not have the capital or knowledge required to service their investor-clients on a basis that remotely approaches global brokerage service standards; although they do provide a limited array of brokerage services at a fraction of global costs for a securities account.

52. None of these institutional categories are inherently or congenitally weak. Their weakness is derived from a legacy of financial policies and strategies that are proving, in retrospect, to have discouraged emergence of the kind of institutional base of financial firms that India needs to compete in global financial markets.

53. The legacy problem inherited by Indian financial firms, and exacerbated by the domination of PSU financial firms in the Indian financial universe, needs to be tackled boldly on two simultaneous tracks: (a) first, India needs to moderate, and eventually dispense with, its legacy of state ownership in the financial universe; (b) second, Indian policy-makers and regulators need to shift away from the artificial over-compartmentalisation of sub-markets. Those two propensities have inhibited the proper development of these markets. They have also prevented larger, more capable financial conglomerates – operating across different market segments – from emerging and competing globally. With reintegration across the extant sub-sectors of finance, and with barriers to expanding into new lines of business being removed, large, sophisticated and competitive Indian financial firms will emerge.

54. **The HPEC believes that the Indian authorities should support the consolidation of Indian firms in the financial sector to permit – through the unconstrained operation of natural market processes – sizeable Indian financial conglomerates to emerge, through acquisitions, mergers and** (hostile as well as amenable) **takeovers**. The aim should be to create a few (at least five or six) Indian LCFIs– led by the most capable and dynamic financial groups in India – the size of whose consolidated balance sheets exceeds US$500 billion. No financial firm should be exempt from this consolidation process, regardless of ownership. Furthermore the consolidation of Indian financial conglomerates should be facilitated by foreign equity participation on the part of private equity firms, strategic direct investors, and institutional portfolio investors to augment the limitations of Indian capital resources. The implementation of this strategy does not require government or regulatory direction concerning which firm should acquire which other firm. It requires removing the barriers to reintegration, and impediments to market-driven M&A, that are present today.

55. The end goal should be to have Indian LCFIs that span the entire financial spectrum. Until India achieves FSA style integration of all finance under one regulator, a key tool for achieving this goal might be the 'financial holding company' as described in Chapter 11. HPEC sees the holding company as the logical organisational structure for Indian financial firms that seek to become global players in the period where India uses the proposed four-pillar regulatory architecture. A set of policy measures need to be taken to enable this institutional structure to emerge.

56. In the specific field of asset management, a major organisational innovation to harness scale economies is recommended. At present, banks, insurance companies, mutual funds, pension funds, FIIs, *etc.* all undertake uneconomic asset management operations. Each of these operations is small, lacks economies of scale, and is unable to compete in the global

market for asset management. In this situation, **the government needs to permit the emergence of Wholesale Asset Management businesses, regulated by SEBI, where the minimum size of customer funds is at least Rs. 10 crores.**

57. This initiative should get the benefit of light-touch regulation, given that the protection of retail investors does not arise as an issue under this arrangement. **All impediments to outsourcing of asset management by financial firms in India – banks, insurance companies, mutual funds, pension funds, FIIs, hedge funds, *etc.*. – should be identified and removed**. Once these artificial barriers to outsourcing are removed, each entity – such as a mutual fund – will make a commercial decision on whether the task of asset management should be in-sourced or outsourced to one of the Wholesale Asset Management firms.

58. Given the immense economies of scale that can be captured by large asset management factories, differentiated front-end entities – such as mutual funds, insurance companies, pension funds, investment banks – may choose to outsource their asset management functions to such Wholesale Asset Managers. This would separate the *front-end* interface with a customer – such as a mutual fund, bank, insurance company or pension fund – from the *back-end factory* undertaking the actual activity of asset management. The front-end financial firms would continue to be regulated by their domain regulator while the factory would be regulated by SEBI using PBR. Undertaken on a wholesale basis, that is blind to the sourcing of assets being managed, such *asset management factories* can achieve much lower costs and much larger economies of scale than the present plethora of fragmented, small asset management units of disparate financial firms. By pooling assets from all parts of the Indian financial system, Wholesale Asset Managers could achieve pricing efficiencies that would make them competitive by global standards. India's progress on this score should be measured by comparing the Indian wholesale price for running an index fund for $1 billion of the S&P 500 against the wholesale price seen in New York or London.

59. In addition, Indian authorities should bring forward their liberalisation plans for the financial sector (*e.g.*, opening up to branch banking by foreign banks) ahead of the commitments to the WTO Agreement on Trade in financial services. In this instance, the HPEC believes that more open foreign entry will be in India's own self-interest in the short, medium and long term.

60. The protectionist arguments that have become so familiar in other sectors – to give Indian financial firms more time to adjust to new global realities – need to be re-examined carefully. Indian financial firms have seen the writing on the wall since 1991. It is true that they have not had the freedom and flexibility as yet to grow organically and diversify as they might have wished. HPEC envisages convertibility within 18–24 months. This gives all Indian financial firms a window of 18–24 months for gearing up to cope with the opportunities and competition that flow from convertibility. Giving firms more time than that will prolong inefficiency rather than enhance competitiveness.

61. **The Indian financial sector now needs to open its doors to face the full force of international competition and adjust accordingly**. As with their counterparts in manufacturing industry some Indian financial firms will perish. Others will strengthen to take their place in the world in the same way that the more robust, competitive Indian manufacturing firms are now doing. **The HPEC sees no convincing argument in favour of delaying this move any further.** It will enable India to rectify its institutional weaknesses and deficiencies faster than it otherwise would. There is little point in being cautious simply for the sake of caution if, given the balance of probabilities, such caution

only ends up in damaging India's ability to compete effectively in the global market for IFS by having a less efficient financial system.

62. The control of branch licensing for banks is an anachronism, at a time when India has moved away from the license-permit raj in most respects. There is no other industry in India, today, where firms have to take permission from the government in order to open branch offices. Simply because they take deposits does not make bank branches any different from other market enterprises. Banks should decide where and when they want to open branches and not the regulator. As part of improving competition policy, **the opening of branches by domestic banks should now be immediately decontrolled.** No domestic bank should have to ask the banking regulator for permission for each ATM or branch. After one year (ie by the beginning of 2008) this policy should be extended to all banks. This will give local banks a one-year head start over foreign rivals on opening branches.

63. Indian banking is afflicted by a weak pace of entry and exit, reflecting poor competition. Entry into domestic banking has been hampered by over-prescriptive and asymmetrical rules about the ownership of banks. Banning banks with ownership patterns that have close relationships with the owners of non-finance companies eases the task of regulators and supervisors. **The time has come to remove these restrictions and permit unrestricted entry by Indian corporates into banking and all other financial services. As the Tarapore-2 Committee has pointed out, and the HPEC concurs, the discriminatory 10% ceiling on investments by corporates in banks is unjustifiable and should be removed immediately.** As a member of the HPEC observed, in a market economy there can be no justification for such a restriction when another economic agent – *i.e.*, the state – can have any level up to 100% ownership of the same types of institutions. While this will increase the workload and complexity of banking regulation and supervision, the benefits through increased competition will be considerable.

64. Banking regulation requires strong features of market discipline to accompany the kinds of competition policies described above. This requires that all banks in India should now raise equity in the capital market and raise a minimum proportion of their liabilities by issuing bonds with no safety net of deposit insurance. In the context of the need for additional equity capital on the part of Indian banks to meet Basel-II requirements, regulators appear to have been tempted to accommodate high asset growth with diluted equity requirements. This temptation needs to be checked, in the interests of controlling the leverage of Indian banks and simultaneously exposing banks to market discipline.

65. **Finally, the Indian financial market should be made fully open to the entry of globally established alternative investment vehicles with a track record as well as to exchange traded funds, arbitrage funds and any financial entity of any sort provided it meets the requisite performance, track record and 'fit-and-proper' tests for entry**. These tests should not be manipulated to bar or delay entry in practice when it has been opened up in principle. Alternative investment vehicles should also be enabled on the domestic market.

66. In Chapter 2, Box 2.8 showed a comparison of the charges for trading index futures in Mumbai versus Chicago. Indian exchanges have charges that are higher by a multiple of 10 or 25 depending upon the size of the customer. The reforms proposed in this report rectify this egregious anomaly through the following measures:
    1. Eliminating all transactions taxes like the STT and stamp duties;
    2. Subsuming into the GST on finance all service taxes on brokerage and refunding the GST applied to foreign

customer transactions (because exports are zero-rated);

3. Adoption of a PBR approach by SEBI that is likely to reform the ad-valorem charge going into the 'Investor Protection Fund';
4. Permitting algorithmic trading, DMA and greater global participation by sophisticated traders such as alternative investment vehicles to increase the number of transactions in India, thus reducing the average charge per transaction;
5. Unifying equity, commodities, currencies and interest rates into a single exchange industry to open the possibility for Indian exchanges to trade additional contracts and obtain economies of scope and scale, thus lowering average charge per transaction;
6. Global benchmarking: *i.e.*, at present the management teams of Indian exchanges do not compare themselves against the Chicago tariff structure. The situation is like that of Indian steel companies in 1992 which thought that the price of Indian steel was distinct from the world price of steel. If the reforms suggested in this report are implemented, global competition would greater pressure on Indian exchanges in favour of efficiency and lower charges, as happened with Indian steel companies.

2.4. Other Policies and Issues affecting the Financial System and an IFC

67. The Indian IT services industry was based on India's exploitation of its advantage in 'purpose-suited' human capital. That will be equally true of India's entry into the export of IFS through a Mumbai based IFC. But **India's human capital resources and their qualifications for this purpose should not be taken for granted**. There are intense competitive pressures across all industries to attract these human resources. Major investments therefore need to be made simultaneously including *inter alia*:

- Creating a specialised postgraduate programme (M.Sc. in Finance) that combines the teaching of high-level quantitative economics, finance, advanced mathematics and complex modelling, and computer science. Such a programme should be pioneered in an academic centre of excellence close to Mumbai and should result in a steady stream of graduates to populate the IFC and replenish its human capital base regularly.
- For this initiative to have a material impact upon the human capital in Mumbai, the size of the program should be set at 200 students graduating every year. Once a major program is established, it is likely that other graduate schools of business in India will mimic its structure thus further augmenting the supply of numerate staff-persons into the emergent IFC.
- Increasing the output of MBAs majoring in Finance and Quantitative Finance from India's best postgraduate teaching institutions, with a particular focus on strengthening the quality of academic staff and the linkages between their research program and the emergent IFC.
- Increasing the output of qualified professionals and paraprofessionals for the supporting accounting, auditing, business-consulting, and legal professions to ensure that an adequate supply of properly trained and qualified human capital is always available in these areas.

68. In the final analysis, **it would be a grave error to take an 'industrial policy' or planning approach to the emergence of an IFC in Mumbai**. It is tempting for policy-makers to have a laundry check-list to guide what specific actions need to be taken to make an IFC work, or to try and 'pick winners' in terms of firms or areas of business to be

encouraged by government. Clearly, as this report elucidates, a number of critical issues do need to be resolved as far as financial regime governance in India and urban infrastructure and governance in Mumbai are concerned. But, beyond that, the authorities should not attempt to be over-prescriptive.

69. **The role of government should be to set up an enabling framework, and rely on two principles: (a) ensuring that the market for IFS provision in Mumbai works as efficiently as possible; and (b) adopting a policy of total 'openness' in terms of entry into that market by every kind of player that wants to provide any kind of IFS without being bound by capital controls, artificial entry barriers and restrictive rules.**

70. **The IFC in Mumbai should evolve on its own, based on the drive, entrepreneurship and innovation of domestic and foreign financial firms participating in the export of IFS.** Clearly such players need to meet the basic 'fit-and-proper-person' tests of probity, integrity and competence. They need to have an established track record which inspires confidence in their ability to enhance the reputation of the IFC. In short, **the IFC's destiny should be left to market forces and not be determined by government fiat.**

71. The reason for relying on these principles is that it is impossible to predict how the IFS industry will evolve or what products and services will appear five or ten years from now, or who the players will be. Certainly it would have taken an extraordinary insightful if not clairvoyant observer to predict ten years ago what the IFS industry would be doing today. Government should not attempt to go too far beyond that other than doing what is needed and what has already been elaborated upon earlier.

72. Intuitively, the task of bringing Indian finance up to a level of global competitiveness in 2007 is comparable to the task faced in reforms of Indian trade and industry in 1992. At the time, key reform initiatives did not consist of thinking through all steps from 1992 to 2007. They consisted of introducing new elements of competition into the system, after which a continual process of learning and policy evolution took place.

73. In similar fashion, the set of recommendations of this report do not claim to be a fully thought out program of financial sector reform for a multi-year time horizon. However, what is likely to be achieved by implementing this program of reforms is of unleashing new forces of competition and outward orientation into Indian finance. That process would (in turn) have far-reaching consequences; comparable to the removal of industrial licensing and scaling back of trade barriers in the early 1990s.

74. **Once these recommendations are implemented, a dynamic of competition and innovation would come about, which would trigger off new learning and new forces of political economy, which would then influence the future evolution of financial sector policy. However, the immediate priority is to implement the recommendations of this report. They constitute a minimum set of reforms which break free from the present stasis, and unleash competition and outward orientation. India has dismantled an autarkic license-permit raj in industry and trade, and can do it again in finance.**

3. The challenge of urban infrastructure and governance in Mumbai

75. As indicated earlier, the prospects of establishing an IFC in Mumbai and ensuring its commercial viability, global credibility, and operating success, depends as much on financial regime transformation in India as on how well Mum-

bai covers its debilitating infrastructure and urban governance deficits. **The HPEC has more concerns about how and whether these large urban governance challenges in Mumbai will be met than it does about achieving the necessary transformations in Indian financial policies and practices to accommodate an IFC.**

76. For a Mumbai based IFC to be globally competitive, on a par with other IFCs and the three major GFCs, it has to have world class infrastructure that meets global standards in the quality of construction, finish and ongoing maintenance. That applies to: (a) residential and commercial space; (b) shopping and recreational facilities; (c) uninterrupted, high quality electric power supply with minimal fluctuations in voltage and current; (d) water supply with minimal fluctuations of pressure and quality; (e) sewerage and waste disposal as well as storm drainage and flood control during the monsoon season; (f) local gas and utility distribution; (g) global standards in all modes of private and public urban commuter transport – road, rail and water-borne – as well as rapid transport links that connect the Mumbai IFC with the rest of India (ie air links involving airports and airlines as well as high-speed rail and world class motorways) and the rest of the world (mainly air-linkages); and (h) global standards of telecommunications (landline, cellular and broadband) that connect the Mumbai IFC around the clock to the world. Apart from coming close on the last of these requirements, Mumbai does not hit the board on all the others.

77. All these infrastructural requirements have been explicated in several forums before with elaborate plans being drawn up to meet these challenges by a variety of public and private bodies aiming to put 'Mumbai First'. For that reason the HPEC has desisted from going too far down a path trodden too often by too many others (a slew of local city committees as well as national international agencies) in the recent past.

78. In HPEC's considered view (with many members of the Committee having resided in Mumbai for most of their lives) the progress that has been made so far has been more rhetorical than real. The state and civic administrations have made numerous statements of intent in the past but little progress was made until recently. But the scene appears to be changing with new vision and drive on the part of the State's Chief Minister to go on a war footing to improve the urban environment of Mumbai. Excellent staff appointments have been made in Mantralaya to drive the development of infrastructure in the city. The change in the air is palpable. While India was progressing rapidly by way of economic growth, Mumbai seemed until last year, paradoxically, to be decaying and crumbling at almost the same pace. That obviously could not continue. The Chief Minister and his dynamic team have done much to change that state of affairs.

79. If Mumbai is to host an IFC then its infrastructure deficiencies need to be resolved quickly – and not through arabesques such as the Navi Mumbai SEZ. **The HPEC suggests that the impressive and laudable combined efforts now being made by central, state and civic authorities – along with the active support of the private corporate sector – should be enhanced and supported by multilateral financing institutions and PPP arrangements in every sub-sector of infrastructure. The authorities should invite the open participation of foreign construction and development firms alongside their Indian counterparts to ensure that Mumbai's infrastructure deficit is covered in the next 10 years.** If that is not done then the pursuit of an IFC in Mumbai will remain a pipe dream that will be impossible to convert into reality. Locating it in a SEZ is not a viable option.

80. In that connection the HPEC believes that state and civic administrations need to move swiftly but fairly in resolving

the outstanding issues posed by the ULCRA and the Rent Control Act that are blocking access to pipeline funds available from the Centre and multilateral financing institutions.

81. Apart from the present state of its physical infrastructure – that makes Mumbai remote from being world class – the city also confronts a serious 'governance deficit'. The reasons for that are well-known and have been discussed *ad nauseam* in academic circles, the media, and in policy-making circles at central and state levels of government. Given this backdrop, HPEC believes that it is time for the talking to stop and the action to start. Mumbai needs a City Manager (whether elected or appointed) who is directly accountable to its citizens and residents. The city needs an administrative apparatus for governance that is under the direct control of such a City Manager – with the support of the state and centre – and that has its own revenue base and financial independence to match. Mumbai has been a 'milch cow' for both the Centre and State for some time. It has got very little back for its own urban development. That asymmetry needs to be reversed.

82. Mumbai needs to be seen across India and around the world as a welcoming, cosmopolitan and cultured metropolis capable of accommodating a large number of expatriates. It is only with such an ethos that Mumbai can become an IFC.

HPEC Report on making Mumbai an International Financial Centre: Timelines for Recommended Actions

Recommended Actions	2007 by Quarter				2008 by Quarter				2009 by Quarter				2010 by Quarter				2011>
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Year
A. Actions on Fiscal Deficit, Tax and Public Debt Financing/Management Fronts:																	
1. Achieving and maintaining an average growth rate of 9% to 10%	Increase to 9%				Increase to 9.5%				Increase to 10%				Maintain at 10% or more				
2. Reduce the gross consolidated fiscal deficit (GCFD) from 8+ to 4–5% of GDP.	Reduce to 7%by y.e.				Reduce to 6%by y.e.				below 5%								
3. Reduce total public debt to GDP ratio from 80% of GDP to significantly less.	Reduce to 75%				Reduce to 70%				Reduce to 65%				Reduce to 60%				<50%
4. Implement the FRBM Task Force Report of 2004.	Implement 40%				Implement 70%				Implement 100%				Implementation Completed				
5. Eliminate Securities Transaction Tax (STT) and Stamp Duties (SDS).	Eliminate STT				Eliminate all SDS				All Transactions Taxes, Stamp Duties eliminated								
6. Apply GST to the financial services industry.	Technical Studies				Preparation Phase				Pilot Phase				Implementation				
7. Open up purchase of INR denominated debt instruments issued by GoI to All Buyers	Open up fully				No further restrictions on INR denominated paper for any buyer												
8. Restructure budgets/'balance-sheets' of states and metropolitan municipal corporations	Start Phase-1				Phase-2				Phase-3				Phase-4 Complete				
9. Shift burden of future infrastructure financing from public to private sector through PPPs	Pilot PPP Projects				PPPs in 10 states				PPPs in 15 states				PPPs in All states				
10. Set up independent public debt management office (or as second-best locate it in MoF)	*De facto* shift				Independent PDMO				Public Debt Managed Independently								
B. Actions on Monetary Policies and Monetary Management based on Inflation Targeting																	
11. Focus Monetary Authority exclusively on single task of managing key short-term 'base rate'	Technical Studies				Policy Decisions				Implementation of Changeover				Separate Regulator				
12. Full CAC to be achieved in a time-bound manner within the next 18–24 months	Technical Studies				Prepare		Execute		Capital and Current Accounts Fully Open								
C. Actions on Financial Regime Governance and Financial System Regulation																	
13. Improve functioning of Legal System insofar as it affects financial services.	Phase 1				Phase 2				Phase 3				Legal System at Global Standard				
13A. *Improve knowledge-skills and training of judges and arbitrators*	Train 30% of staff				Train 65% of staff				Train All Staff				Continue training/updating				
13B. *Reduce Case Backlog of cases involving financial contract disputes*	Reduce by 25%				Reduce by 50%				Reduce by 75%				Eliminate Totally				
14. Create International Financial Services Appellate Tribunal (IFSAT) covering all of finance.	Technical Studies				Insurance/Pensions				Extend to Banking				Extend to all of finance				
15. Permit unrestricted entry of well-known global legal firms operating in other IFCs/GFCs	Prepare Ground				Open up Entry				All Global legal firms permitted to operate								
16. Permit unrestricted entry of well-known global accounting firms operating in IFCs/GFCs	Prepare Ground				Open up Entry				All Global Accounting firms permitted to operate								
17. Dismantle barriers between different financial market segments	Except Banking				Include banking				No further compartmentalisation of finance								
18. GoI to prepare 'exit strategy' for its withdrawal from the ownership of financial firms	Build Consensus				Non-bank PSFFS				Strong PSBs				Weak PSBs				All PSFFS
19. GoI to reduce equity stake gradually in all types of public sector financial firms; esp. PSBs	Prepare Ground				Reduce to <49%				Reduce to <33%				Reduce to 26%				0 by 2015
20. Shift Financial Regulatory Regime from Rules-Based (RBR) to Principles-Based (PBR)	Technical Studies				Apply PBR-SEBI				Apply PBR-IRDA				Apply PBR-BR				All PBR
21. Conduct Periodic Regulatory Impact Assessments of the financial regulatory regime.	Prepare Ground				RIA for Banks				RIA-Cap Markets				RIA–Others				Regular
22. Examine Carefully the Need for changing extant Regulatory Architecture	Technical Studies				Consolidation to 4				Consolidation to 2?				Single Regulator?				Unified?
23. Trading platform for sovereign bonds to be moved to exchanges (NSE and BSE)	Technical Studies				Shift Platform				All bond trading to be done on market exchanges								
24. Draft new Financial Services Modernisation Act embracing 'Principles Based Regulation'	Prelim Drafting				Consultations				Final Draft				Table FSMA Bill				FSMA
24A. FSMA *should incorporate redrafted Banking Regulation Act (BRA) giving banks more flexibility*	Prelim Drafting				Consultations				Final Draft				Table FSMA Bill				FSMA
25. Transfer all regulation/supervision of any type of organised financial trading to SEBI.	Technical Studies				Execute Transfer				All financial market trading supervised by SEBI								
26. Distinguish between wholesale and retail markets and use appropriate regulation for each	Technical Studies				Separate Markets				Wholesale and Retail Markets regulated differently								
27. Open up immediately to DMA and algorithmic trading	Rules		Open		No bans on DMA and algorithmic trading to be regulated reasonably												
D. Actions on Filling the Gaps in 'Missing Markets'																	
28. Create rapidly the Missing BCD Nexus in Indian Capital Markets:																	
A. Bond Market	Technical Studies				Shift Platforms				Widen and deepen sovereign/corporate bond markets								
B. Establish Currency trading exchange with a minimum transaction size of INR 10 million	Prepare		Launch		Currency Market operates on NSE/BSE supervised by SEBI												
C. Derivatives Market: Shift trading in vanilla products (futures, options, swaps) to exchanges	Widen Range of Contracts to cover currencies, interest rates, credit default and trade them																
D. Retain and Expand OTC trading of exotic and tailor-made derivatives.	Widen OTC trading				Continually expand range of products traded on OTC to global levels												
E. MoF to review/remove constraints on any financial firm operating in derivatives	Technical Study				Remove all restrictions/bans other than usual prudential regulations												
F. Create INR cash settled currency derivatives on exchanges open to all (FIIs).	Technical Study				Launch range of multi-currency futures, options, swaps for trading												

HPEC Report on making Mumbai an International Financial Centre: Timelines for Recommended Actions

Recommended Actions	2007 by Quarter				2008 by Quarter				2009 by Quarter				2010 by Quarter				2011>
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Year
E. Actions to Strengthen Institutions operating in Indian Financial Markets																	
29. GoI to support emergence of Indian LCFIs to emerge, through M&A and takeovers.	Technical Studies			Remove Restrictions			Encourage M&A		Let market drive consolidation and segment integration through financial system								
30. GoI to permit Wholesale Asset Management regulated by SEBI (minimum account Rs.10 crores)	Technical Study			Framing of Rules			Launch WAMs		Encourage rapid expansion of WAM with PBR-based regulation by SEBI								
31. Remove all impediments to outsourcing of asset management by banks, insurance companies, mutual funds, pension funds, FIIs, hedge funds, etc.	Technical Study			Remove Restrictions			Full outsourcing of asset management activities by any financial firm operating in India										
32. GoI to bring forward liberalisation of financial sector in keeping with commitments to WTO Agreement on Trade in Financial Services.	Technical Studies			Accelerated liberalisation Programme in place					Indian financial system fully open to global participation subject to prudential regulation and fitness tests								
33. Interim adjustment period of two years for Indian institutions to adapt to global competition.	Capacity building by Indian firms								Indian financial sector open to foreign competition								
34. Opening of branches by domestic banks to be decontrolled immediately.	All restrictions on branch opening by domestic banks to be removed immediately																
35. Opening of branches by foreign banks to be decontrolled after one year					All restrictions on branch opening by foreign banks to be removed												
36. Remove immediately all restrictions limiting corporate ownership of banks to 10%	Restrictions limiting private corporate ownership of banks to 10% to be removed																
37. Open up Indian capital markets to entry of hedge funds and alternative investment vehicles	Remove all restrictions on entry of hedge funds and AIVs																
38. Set up range of programmes for development of specialised human capital for the financial industry	Set up MSc in Finance and a range of specialised technical training programmes																
F. Actions to Improve Infrastructure in Mumbai																	
39. Transport Infrastructure:																	
A. Intra-city roads and arterial routes [PPPs]	Phased development and expansion of Mumbai's road transport capacity																
B. Coastal Highways and Expressways [PPPs]	Technical Feasibility Studies						Tenders Preparation				Contracts		Construction				
C. Suburban Railways and new Metro System [PPP]	Technical Feasibility Studies						Tenders			Contracts			Construction				
D. Water-borne Transport – Ferries/Hydrofoils/Jetfoils [PPPs]	Feasibility			Tenders			Contracts			Facility Construction and Operations							
E. Increase/upgrade airport and runway capacities	Actions already taken for Santa Cruz and Sahar. New plans for Navi Mumbai airport and runways																
40. PPPs for Power Infrastructure:																	
A. Increase in Power Generation Capacity ($24 \times 7 \times 365$)	Studies			Tenders			Contracts			Power Plant Construction and Operations							
B. Increase in Transmission/Distribution Capacity	Studies			Tenders			Contracts			T&D Line Construction and Operations							
41. Water Supply, Sewerage& Drainage:																	
A. Increase in Storage Capacity and Pipelines [PPP]	Plans and Projects underway to increase and improve water supply quantity/availability																
B. Increase in Filtration and Water Quality [PPP]	Plans and Projects underway to increase and improve water quality																
C. Upgrading/Expansion of Sewerage Capacity	Plans and Projects underway to increase and improve sewerage capacity/treatment																
D. Upgrading of Storm and Flood Drainage	Plans and Projects already underway to increase and improve storm/flood drainage																
42. Increase Waste Disposal Capacity: For solid and liquid waste with environmental protection	Develop PPPs					Contracts			PPP Contracts Underway and Operating								
43. Telecommunications Infrastructure:																	
A. Substantial Expansion of Cellular Network	TRAI to hold cellular operators to service quality commitments to upgrade continuously																
B. Expansion of Landlines and Broadband	MTNL to expand landlines in keeping with demand growth; increase competition																
C. Expansion of International Bandwidth	VSNL, FLAG to increase bandwidth rapidly; introduce greater foreign competition																
44. Accommodation: Residential, Office and Commercial	Drop ULCRA/RCA					Normalise rentals			Dispense with all controls except urban planning								
G. Actions to Improve Urban Governance in Mumbai																	
45. GoM and BMC to appoint or arrange to elect a City Manager accountable for Mumbai	Prepare Groundwork			Appoint/Elect			Place City Administration under full control of City Manager										
46. Bring the existing city governance machinery under the full control of the City Manager	Prepare Groundwork																
47. Establish independent financial base for the city that is under the control of the City Manager	Study Options			Agree Fund Sources			Place City on mainly independent financial footing										
48. Rationalise and streamline to organisation structure and lines of responsibility in city management	Organisation Study					Transition			Implement Rationalisation/Streamlining Programme								

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The Committee

Appendix A

The members of the Committee and its Terms of Reference are as follows:

Members:

(i) Mr. Percy S. Mistry, Chairman, Oxford International Group, Chairman (resigned as Chairman of HPEC w.e.f. 07/02/2007)

(ii) Mr. M. Balachandran, CMD, Bank of India

(iii) Mr. Aditya Puri, MD, HDFC Bank

(iv) Mr. K.V. Kamath, MD& CEO, ICICI Bank

(v) Mr. C.B. Bhave, CMD, NSDL

(vi) Mr. Ravi Narain, MD, National Stock Exchange

(vii) Mr. Bharat Doshi, CFO, Mahindra & Mahindra

(viii) Dr. P.J. Nayak, CMD, UTI Bank

(ix) Shri T.T. Srinivasaraghavan, MD, Sundaram Finance

(x) Shri Mohan Raj, MD, LIC Mutual Fund

(xi) Mr. Nimesh Kampani-Chairman, JM Morgan Stanley

(xii) Mr. O. P. Bhatt, Chairman, State Bank of India (Mr. A.K. Purwar, Chairman, SBI was a member of HPEC till 31/05/2006 and Mr. Bhatt, Chairman, SBI from 01/07/2006 till the submission of the report.)

(xiii) Ms. Usha Narayanan, ED, Securities and Exchange Board of India

(xiv) Mr. Subodh Kumar, Principal Secretary (Finance), Government of Maharashtra (Mr. O.P. Gahrotra, Additional Chief Secretary (Finance) was a member of HPEC till 30/09/2006 and Mr. Subodh Kumar, Principal Secretary (Finance) from 01/10/2006 till the submission of the report.)

(xv) Dr. K P Krishnan, Convenor-Joint Secretary (Capital Markets), DEA, GoI.

(xvi) Representatives of RBI participated in some of the meetings as invitees.

This report reflects their personal expertise and judgement about the best strategy for India in modernising finance and achieving an IFC; it does not reflect the views of the organisations they represent.

Terms of Reference of the Commitee

In the recent decade, India has made significant strides in the financial sector. Some of the important developments are strengthening of banks, de-regulation of interest rates and sector competition in the banking system, development of the government securities market, and infrastructure for trading, particularly on the equity market, with the move to electronic trading, novation at the clearing corporation, T + 2 rolling settlement, dematerialised settlement, demutualisation of stock exchanges and derivatives trading. This raises questions about how Mumbai can play a bigger role in the global market for financial services. Our current policy on capital account convertibility constrains the emergence of Mumbai as a financial centre. There is, however, a need to look ahead and prepare for the emergent role of Mumbai as a regional/international financial centre, so that our institutions get integrated with global institutions and economies in terms of provision of financial services.

The committee will look into and make recommendations on the following issues:

(i) Review the functioning of and developments related to international/offshore financial centres and current trends in regard to establishment of new centres;

(ii) Identify the characteristics of a regional financial centre (RFC), and the current state of Mumbai as a national financial centre;

(iii) Review the existing legal, regulatory, taxation and accounting framework related to financial services in India, identify the extant policy and regulatory restrictions constraining the emergence of Mumbai as an RFC and the changes

therein necessary for enabling and facilitating the function of such a centre;

(iv) Identify the measures that would need to be adopted for Mumbai to transform itself from being a national financial centre to an RFC in each of the financial sub-sectors *e.g.*, the equity, bond, forex and commodity markets;

(v) Examine the nature of financial services that could be permitted to be undertaken in the RFC in Mumbai, the desirable sequencing of permitting such services and the appropriate regulatory framework therefore, in each of the financial sub-sectors aforesaid, including the allocation of regulatory responsibilities amongst different financial sector regulators, consistent with the progress made in achieving full capital account convertibility;

(vi) Make an assessment of the risks and benefits inherent in such a centre and the safeguards that would need to be built into the policy framework, alongwith the scope and structure desirable for such a centre;

(vii) Identify and evaluate the considerations that should govern the development of the institutional framework for such a centre in India in the light of international experience, issues in the management of the capital account in India and international financial integration of the Indian economy consistent with the WTO framework; and

In light of the above, recommend a phased action plan, including specific actions required by different agencies covering institutions, infrastructure, legal, taxation issues etc. for the development of Mumbai as an RFC.

Team of consultants

The committee was supported by a team of consultants comprising Ritu Anand (SBI), Saugata Bhattacharya (UTI Bank), Kshama Fernandes (Goa Institute of Management), S. Ravindranath (Bank of India), and Ajay Shah.

Comparing existing IFCs against Mumbai

Appendix B

Attributes, Characteristics and Capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	London	New York	Tokyo	Singapore	Frankfurt	Mumbai
A. Demand Factors for IFS						
A1. National (Domestic) demand for IFS	10	10	10	4	10	10
A2. Demand for IFS from Regional clients	10	10	3	9	7	1
A3. Demand for IFS from Global clients	10	10	3	5	3	0
B. Supply Factors for IFS: Markets, Products & Services						
B1. Full Array of international banking services for corporates and individuals	9	9	9	10	6	5
B2. Full Array of international capital markets, products and services	10	10	7	8	5	3
B3. Full Array of risk management services	10	10	5	7	6	2
B4. Full Array of insurance and reinsurance services	10	10	7	5	8	1
B5. Full Array of commodities markets, trading and hedging services	9	9	5	5	4	1
B6. Full Array of business support services for IFS (accounting, legal, IT support)	10	10	8	10	8	5
C. Institution/Market Endowments enabling range of IFS product/service offerings:						
C1. Range, width, depth of international commercial banks represented in the IFC	10	7	5	8	6	2
C2. Range of global, regional and national investment banks represented in the IFC	10	10	8	9	7	2
C3. Range of global, regional and national insurance companies represented	10	9	8	6	8	2
C4. Existence of wide and deep reinsurance markets	10	9	8	6	9	1
C5. Existence of global, regional, national equity markets (i.e. exchanges & support)	10	10	9	8	6	4
C6. Existence of wide and deep bond markets for government, corporate, other bonds	10	10	9	5	9	1
C7. Existence of wide, deep and liquid derivatives markets for:						
Equities and indexes	10	10	6	7	6	5
Interest rates	10	10	8	7	7	1
Currencies	10	10	7	8	8	1
Commodities	10	8	7	5	8	3
C8. Innovative Abilities of Institutions and Markets	10	10	5	6	4	5
D. Services Offered						
D1. Fund Raising, Wholesale and Corporate Banking	10	10	8	7	7	5
D2. Asset Management	10	10	8	9	6	4
D3. Private Banking & Wealth Management	10	7	5	7	5	2
D4. Global Tax Optimisation & Management	6	5	3	8	4	1
D5. Corporate Treasury Management	10	10	9	8	8	4
D6. Risk Management	10	10	7	7	6	2
D7. Mergers & Acquisitions: (national, regional, global)	10	10	6	5	5	3
D8. Financial Engineering for Large Complex Project and PPP Financing	10	10	8	7	6	3
D9. Leasing & Structured Financing of Mobile Capital Assets (ships, planes etc.)	10	10	9	9	10	2

Attributes, Characteristics and Capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	London	New York	Tokyo	Singapore	Frankfurt	Mumbai
E. Quality & Impact of Financial System Regulatory Regime	10	7	6	7	5	3
E1. Ensuring Systemic Stability	10	9	8	8	8	7
E2. Protecting Integrity & Soundness of Financial Institutions	9	9	9	9	8	6
E3. Capacity to Cope with Market & Institutional failures	10	9	8	8	7	7
E4. Sound risk based management at all levels: systemic, market, institutional	10	10	8	8	8	6
E5. Effective (vs. intended but ineffectual) Consumer Protection	8	7	7	8	9	5
E6. Encouraging full and effective competition across institutions/segments	10	6	5	7	5	2
E7. Ensuring level playing field for all players in all market segments	9	7	5	7	6	2
E8. Extent of Protectionism embedded in regulatory system	9	6	5	5	4	1
E9. Avoidance of conflicts-of-interest	8	7	5	6	5	1
E10. Impact on Financial Innovation	10	10	5	5	4	1
E11. Extent of Intrusiveness and micro-management of markets/institutions	10	8	7	6	5	1
E12. Principles-based, open, market-friendly and competition inducing	10	7	7	6	6	1
E13. Conducive to efficient and effective resource mobilisation and allocation	8	7	6	7	6	2
F. Quality, Efficiency, Effectiveness and Supportiveness of Judicial/Legal Systems						
F1. Knowledge capacity in dealing with complex financial contracts, instruments, etc.	8	9	6	6	5	
F2. Efficiency of judicial/legal system (i.e. time for dispute resolution)	7	8	7	9	6	
F3. Effectiveness of judicial/legal systems – enforcement and rule of law	7	8	7	8	6	
F4. Fairness, Impartiality, Credibility, Lack of Corruption in civil justice system	7	7	9	10	8	
F5. Human & Institutional Capacity and Quality of the Judicial/Legal System	7	8	7	8	7	
F6. Adherence to global benchmarks and standards of best practice	8	8	6	7	6	
F7. Use of national law in national, regional and global contracts	8	9	3	5	4	
G. Governance Issues Affecting Operations/Credibility of the IFC						
G1. Quality and Credibility of National Governance (Legislature & Government)	7	6	7	10	6	3
G2. Quality and Credibility of State/Provincial Governance	8	9	8	10	8	1
G3. Quality and Credibility of Local/Municipal Governance	8	8	9	10	8	0
G4. Influence of Politics in diminishing Governance Quality:						
National/Federal 6	6	8	10	8	2	
State/Provincial	6	8	8	10	7	1
Local/Municipal	8	8	8	10	7	0
G5. Quality, Capacity, Efficiency, Effectiveness of Administration:						
National	6	7	8	10	7	4
State	6	8	8	10	7	2
Municipal	8	9	9	10	7	1
G6. Role of Checks & Balances (NGO oversight, media freedom, civic action etc.)	8	9	5	2	7	2

Attributes, Characteristics and Capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	London	New York	Tokyo	Singapore	Frankfurt	Mumbai
H. Quality & Capacity of Business Support Services to Sustain an IFC						
H1. Quality, reputation and presence of International Accounting/Audit Firms	9	9	8	9	9	6
H2. Quality, reputation and presence of International Law Firms	9	10	6	7	6	2
H3. Quality, reputation and presence of International Business Consulting Firms	10	10	8	9	7	4
H4. Quality and competitiveness of IT, BPO, KPO support systems	6	6	4	5	4	9
J. Human Capital Support for the IFS Industry						
J1. Quality, availability and cost of Finance Industry professionals:						
Strategic/Exec10	10	5	6	4	3	
Management (all functions)	7	8	5	6	4	4
Trading & Dealing	9	9	6	8	6	4
Financial Analysis & Research	7	9	5	6	5	8
Compliance Specialists	8	7	6	9	8	4
Back-Office Functions/Support	6	7	4	5	4	9
J2. Presence/Quality of Post-Graduate Teaching/Research Institutions in Finance	6	10	4	3	3	2
J3. Local Pool/Network of globally experienced finance professionals	10	8	4	7	4	2
J4. Local presence of Global HR Recruitment/Consulting/Training Firms	10	10	6	8	5	2
J5. Ease of entry, exit and overall mobility of global finance professionals at all levels	8	7	3	7	4	2
K. Quality of Physical & Social Infrastructure & Living Environment						
K1. Quality/Availability/Cost of Basic Core infrastructure:						
Power	9	9	10	10	10	4
Water	9	9	10	10	10	4
Telecommunications	9	10	10	10	9	6
Transport	5	6	7	8	8	2
Residential Space	7	5	5	7	8	3
Office/Commercial	9	9	10	10	10	3
K2. Leisure, Entertainment, Global Cultural, Recreational and Food Facilities	10	10	3	4	6	2
K3. Use of English as the default international language at work and at leisure	10	10	2	9	5	7
K4. Use of English as the default international language for financial contracts	10	10	5	10	6	9
K5. Availability, Accessibility, Cost of healthcare and education (global standards)	5	5	6	8	8	3
K6. Availability, Accessibility, Cost of personal and domestic services	3	3	1	5	1	9
L. Capital Account Convertibility	10	10	10	10	10	3
M. Overall Score/Rating	**9.5**	**9**	**6**	**7.5**	**5.5**	**2.5**

Attributes, Characteristics and Capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	London	New York	Tokyo	Singapore	Frankfurt	Mumbai
N. Taxation Issues as they affect the attractiveness of an IFC						
N1. Taxation of Resident Individuals working in the IFC	5	4	3	5	2	5
N2. Taxation of Non-resident Individuals working in an IFC	7	5	5	6	3	6
N3. Taxation of Resident Companies	4	4	3	5	2	5
N4. Taxation of Non-resident companies	7	5	5	8	4	5
N5. Withholding Taxes levied on financial instruments/transactions.	4	3	3	5	3	5
N6. Transactions Taxes on Financial Transactions – Domestic	6	7	4	7	4	1
N7. Transactions Taxes on Financial Transactions – IFS	7	6	6	8	5	?
N8. Provisions for IBC or GBC licensing (*e.g.*, Delaware type)	6	8	2	8	2	0
N9. Taxation of IBC/GBC companies	6	6	5	8	2	0
N10. Overall Taxation Environment	5	5	4	7	2	5
N11. Complexity of Tax Laws, Codes, Rules, Regulations	4	3	4	7	3	1
N12. Effectiveness, Efficiency, Fairness and Corruption in Tax Administration	9	7	8	9	9	3

Comparing emerging IFCs against Mumbai

Appendix C

Attributes, Characteristics and Capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	Mumbai	Hong Kong	Labuan	Seoul	Sydney	Dubai
A. Demand Factors for IFS						
A1. National (Domestic) demand for IFS	10	4	2	7	6	2
A2. Demand for IFS from Regional clients	1	7	5	2	3	9
A3. Demand for IFS from Global clients	0	2	2	2	3	5
B. Supply Factors for IFS: Markets, Products & Services						
B1. Full Array of international banking services for corporates and individuals	5	7	4	6	7	6
B2. Full Array of international capital markets, products and services	3	6	2	5	7	5
B3. Full Array of risk management services	2	5	2	5	6	5
B4. Full Array of insurance and reinsurance services	1	5	0	3	5	2
B5. Full Array of commodities markets, trading and hedging services	1	6	2	5	6	2
B6. Full Array of business support services for IFS (accounting, legal, IT support)	5	8	5	5	8	6
C. Institution/Market Endowments enabling range of IFS product/service offerings:						
C1. Range, width, depth of international commercial banks represented in the IFC	2	7	5	5	7	4
C2. Range of global, regional and national investment banks represented in the IFC	2	6	1	3	6	4
C3. Range of global, regional and national insurance companies represented	2	6	1	5	6	3
C4. Existence of wide and deep reinsurance markets	1	3	0	3	4	1
C5. Existence of global, regional, national equity markets (*i.e.*, exchanges & support)	4	5	2	4	5	2
C6. Existence of wide and deep bond markets for government, corporate, other bonds	1	1	0	4	7	0
C7. Existence of wide, deep and liquid derivatives markets for:						
Equities and indexes 5	5	1	5	6	2	
Interest rates	1	3	0	4	7	1
Currencies	1	7	2	6	8	5
Commodities	3	5	0	4	6	3
C8. Innovative Abilities of Institutions and Markets	5	5	1	4	7	5
D. Services Offered						
D1. Fund Raising, Wholesale and Corporate Banking	5	7	3	7	7	5
D2. Asset Management	4	9	4	6	6	8
D3. Private Banking & Wealth Management	2	9	6	4	5	9
D4. Global Tax Optimisation & Management	1	9	7	4	4	9
D5. Corporate Treasury Management	4	7	2	7	8	7
D6. Risk Management	2	6	1	4	6	3
D7. Mergers & Acquisitions: (national, regional, global)	3	5	0	5	5	4
D8. Financial Engineering for Large Complex Project and PPP Financing	3	5	1	7	6	5
D9. Leasing & Structured Financing of Mobile Capital Assets (ships, planes *etc.*)	2	9	5	5	5	7

Attributes, Characteristics and Capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	Mumbai	Hong Kong	Labuan	Seoul	Sydney	Dubai
E. Quality & Impact of Financial System Regulatory Regime	**3**	**8**	**4**	**6**	**7**	**7**
E1. Ensuring Systemic Stability	7	7	3	7	8	5
E2. Protecting Integrity & Soundness of Financial Institutions	6	7	5	7	8	6
E3. Capacity to Cope with Market & Institutional failures	7	9	3	7	8	6
E4. Sound risk based management at all levels: systemic, market, institutional	6	7	5	7	8	5
E5. Effective (vs. intended but ineffectual) Consumer Protection	5	6	4	7	8	5
E6. Encouraging full and effective competition across institutions/segments	2	8	5	7	8	9
E7. Ensuring level playing field for all players in all market segments	2	8	4	5	6	8
E8. Extent of Protectionism embedded in regulatory system	1	7	5	5	7	8
E9. Avoidance of conflicts-of-interest	1	6	4	5	8	4
E10. Impact on Financial Innovation	1	7	2	5	7	5
E11. Extent of Intrusiveness and micro-management of markets/institutions	1	8	5	5	7	5
E12. Principles-based, open, market-friendly and competition inducing	1	7	2	5	6	8
E13. Conducive to efficient and effective resource mobilisation and allocation	2	7	3	6	6	5
F. Quality, Efficiency, Effectiveness and Supportiveness of Judicial/Legal Systems						
F1. Knowledge capacity in dealing with complex financial contracts, instruments, *etc.*		8	4	5	7	6
F2. Efficiency of judicial/legal system (*i.e.*, time for dispute resolution)		8	5	6	7	10
F3. Effectiveness of judicial/legal systems – enforcement and rule of law		7	5	6	8	5
F4. Fairness, Impartiality, Credibility, Lack of Corruption in civil justice system		7	5	6	9	5
F5. Human & Institutional Capacity and Quality of the Judicial/Legal System		6	5	6	8	5
F6. Adherence to global benchmarks and standards of best practice		8	6	7	8	7
F7. Use of national vs. UK/US law in national, regional and global contracts		6	6	5	6	9
G. Governance Issues Affecting Operations/Credibility of the IFC						
G1. Quality and Credibility of National Governance (Legislature & Government)	3	3	6	6	7	7
G2. Quality and Credibility of State/Provincial Governance	1	5	6	7	8	7
G3. Quality and Credibility of Local/Municipal Governance	0	6	6	7	8	9
G4. Influence of Politics in diminishing Governance Quality:						
National/Federal	2	5	5	5	8	8
State/Provincial	1	6	5	5	7	8
Local/Municipal	0	7	6	7	8	10
G5. Quality, Capacity, Efficiency, Effectiveness of Administration:						
National	4	5	5	6	8	8
State	2	6	5	6	8	8
Municipal	1	7	6	7	8	8
G6. Role of Checks & Balances (NGO oversight, media freedom, civic action *etc.*)	2	4	3	4	6	0

Attributes, Characteristics and Capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	Mumbai	Hong Kong	Labuan	Seoul	Sydney	Dubai
H. Quality & Capacity of Business Support Services to Sustain an IFC						
H1. Quality, reputation and presence of International Accounting/Audit Firms	6	8	5	7	9	6
H2. Quality, reputation and presence of International Law Firms	2	8	5	5	8	5
H3. Quality, reputation and presence of International Business Consulting Firms	4	7	4	6	8	6
H4. Quality and competitiveness of IT, BPO, KPO support systems	9	5	3	5	5	6
J. Human Capital Support for the IFS Industry						
J1. Quality, availability and cost of Finance Industry professionals:						
Strategic/Executive/Conceptual	3	6	4	5	7	6
Management (all functions)	4	7	5	6	7	6
Trading & Dealing	4	7	3	6	7	5
Financial Analysis & Research	8	7	3	6	7	6
Compliance Specialists	4	5	3	6	8	6
Back-Office Functions/Support	9	7	6	6	4	6
J2. Presence/Quality of Post-Graduate Teaching/Research Institutions in Finance	2	3	0	3	5	0
J3. Local Pool/Network of globally experienced finance professionals	2	5	2	5	7	5
J4. Local presence of Global HR Recruitment/Consulting/Training Firms	2	5	3	5	7	5
J5. Ease of entry, exit and overall mobility of global finance professionals at all levels	2	6	4	3	6	8
K. Quality of Physical & Social Infrastructure & Living Environment						
K1. Quality/Availability/Cost of Basic Core infrastructure:						
Power	9	9	10	10	10	
Water	4	9	9	10	10	8
Telecommunications	6	10	10	10	10	10
Transport	2	6	8	8	8	5
Residential Space	3	7	8	8	8	7
Office/Commercial	3	9	8	9	9	10
K2. Global Leisure, Entertainment, Cultural, Recreational and Food Facilities	2	4	3	3	7	5
K3. Use of English as the default international language at work and at leisure	7	5	5	3	10	6
K4. Use of English as the default international language for financial contracts	9	10	10	5	10	10
K5. Availability, Accessibility, Cost of healthcare and education (global standards)	3	6	7	7	8	6
K6. Availability, Accessibility, Cost of personal and domestic services	9	6	7	4	2	9
L. Capital Account Convertibility	3	10	7	10	10	10
M. Overall Score/Rating	**2.5**	**6.5**	**3**	**5**	**7**	**6**

Attributes, Characteristics and Capabilities of an IFC : (*Scale of 0–10 with 0 = worst 10 = best*)	Mumbai	Hong Kong	Labuan	Seoul	Sydney	Dubai
N. Taxation Issues as they affect the attractiveness of an IFC						
N1. Taxation of Resident Individuals working in the IFC	5	8	5	4	4	10
N2. Taxation of Non-resident Individuals working in an IFC	6	10	10	7	7	10
N3. Taxation of Resident Companies	5	8	6	5	4	10
N4. Taxation of Non-resident companies	5	10	9	8	5	10
N5. Withholding Taxes levied on financial instruments/transactions.	5	10	9	5	5	10
N6. Transactions Taxes on Financial Transactions – Domestic	1	10	5	5	2	10
N7. Transactions Taxes on Financial Transactions – IFS	?	10	9	8	6	10
N8. Provisions for IBC or GBC licensing (*e.g.*, Delaware type)	0	9	9	5	3	10
N9. Taxation of IBC/GBC companies	0	9	8	6	5	10
N10. Overall Taxation Environment	5	8	7	6	5	10
N11. Complexity of Tax Laws, Codes, Rules, Regulations	1	8	7	5	4	9
N12. Overall Effectiveness, Efficiency, Fairness and Corruption in Tax Revenue Administration	2	8	7	6	8	9

Chronology of events associated with the effort by Benchmark Asset Management Company (BAMC) to start an Exchange Traded Fund (ETF) on Gold

Appendix D

- *2 May 2002* Draft offer document of Gold ETF filed by BAMC with SEBI.
- *3 May 2002* Copy of offer document sent to RBI for information.
- *30 May 2002* SEBI raised first list of queries, and asked BAMC to incorporate the features of Gold Deposit Scheme in the offer document. Meanwhile, NSE informally advised BAMC to seek specific approval of RBI.
- *14 June 2002* BAMC wrote to RBI seeking clarification on Gold Deposit Scheme for inclusion in offer document.
- *27 June 2002* RBI asked for a detailed mechanism including investment and settlement process envisaged under Gold ETF.
- *1 July 2002* A detailed note was submitted to RBI.
- *July to September, 2002* Several meetings took place between BAMC, RBI and SEBI to sort out issues relating to Gold ETF. RBI DBOD asked for comments from RBI DEIO.
- *9 September 2002* Fresh offer document was filed with SEBI incorporating observations made by SEBI vide its letter dated May 30, 2002. However RBI had still not replied.
- *11 Sep 2002* Presentation made to FMC stating that the Scheme would not amount to forward trading in gold.
- *3 October 2002* BAMC again wrote to RBI explaining the mechanism and how the Scheme will help meet objectives of Gold Deposit Scheme.
- *17 October 2002* RBI replied to BAMC stating that primary gold cannot be deposited by Authorised Participants under Gold deposit scheme. It also advised BAMC to satisfy FMC before launching the product.
- *25 October 2002* BAMC informed RBI that it planned to launch the Scheme under existing Gold Deposit Scheme guidelines and that it will accept gold from APs as per existing Gold Deposit guidelines.
- *1 November 2002* BAMC responded to a SEBI request with information about the proposed method for valuation of CDs issued by banks under Gold Deposit Scheme.
- *26 November 2002* FMC informed BAMC and NSE that the Scheme is violative of the Forward Contracts (Regulation) Act.
- *2 December 2002* SEBI called a meeting of bankers interested in Gold ETF. ICICI Bank and Bank of Nova Scotia

attended the meeting in SEBI's office and reaffirmed their commitment to enabling the Gold ETF.

- *2nd week December 2002* SEBI wrote to RBI asking its views on Gold ETF and whether CDs issued under Gold Deposit scheme are money market instruments.
- *3 January 2003* BAMC obtained a legal opinion from Dave, Girish & Co. stating that Gold ETF does not amount to spot trading in gold and the Scheme is not violative of Forward Contract Regulations. BAMC forwarded this opinion to SEBI, RBI and NSE. Subsequently, MOF lifted the ban on forward trading in gold, so in any case, FMC's objection became irrelevant.
- *1st week February 2003* RBI wrote to SEBI stating that SEBI should decide whether a Gold CD was a "money market instrument", and that the Gold ETF structure had not been envisaged by RBI when the Gold Deposit Scheme was launched.
- *24 February 2003* BAMC modified the Scheme stating that deposit of gold under Gold Deposit scheme will not be restricted to APs and will be open to all. Moerever any party would be able to deposit gold in a form acceptable under Gold Deposit Scheme.
- *2nd week April 2003* SEBI again wrote to RBI asking whether this modified Scheme is acceptable to RBI.
- *1st week May 2003* RBI DBOD forwarded this letter to RBI DEIO for their comments and action.
- *4th week August 2003* Presentation made by BAMC to JS (CM), Ministry of Finance.
- *4th week September 2003* Presentation made by BAMC to RBI DBOD and DEIO.
- *4th week October 2003* Presentation made by BAMC to Member, SEBI.
- *2nd week December 2003* Presentation made by BAMC to Monetary Policy Department of RBI. MPD was to prepare a note and forward the same to DEIO/DBOD.
- *All of 2004* Silence.
- *28 February 2005* Finance Minister announced in his budget speech that gold ETFs would come about in India.
- *March–April 2005* SEBI constituted a committee to write down rules about Gold ETFs.
- *December 2005* SEBI Board approves amendment to SEBI Act for permitting launch of gold ETFs.
- *April 2006* SEBI announced valuation guidelines for gold ETFs.
- *May 2006* BAMC filed fresh offer document with SEBI which was consistent with the committee report.

Activities of various financial firms in the areas of operation at an IFC: Wall chart

Appendix E

In Chapter 2, we looked at the various activities that take place in an IFC. We discussed in details the products and services that IFCs like London and New York provide. If the goal is to make Mumbai an IFC in the true sense, we would need to put in place the infrastructure, both institutional and regulatory that would enable entities to engage in providing and availing these products and services.

In the process of creation of an IFC, the adequacy of regulatory infrastructure needs to be evaluated, to get a sense of what needs to be put in place for progressing towards being a full-fledged IFC. We study the regulatory impediments that exist and prevent banks, asset managers and securities exchanges from offering/availing these products and services in the area of fund raising, asset management, personal wealth management, global tax management, risk management, financial markets, mergers and acquisitions, leasing/structured finance, project finance, PPP and insurance and reinsurance.

1. Fund raising

An IFC provides a platform for entities to raise large amounts of funds on a global scale. Funds could be raised via equity, debt or composite structures across various maturity and currency spectra. We look at the impediments on fund raising by various entitites in India.

1.1. Fund raising and commercial banks

Commercial banks are permitted to do the following:

1. Raise equity in India or abroad for their own capital base. However PSU banks have problems since GOI does not allow their own share to drop below 51%. Raising equity abroad is a problem because of government restriction on foreign ownership and on the voting rights of foreigners.
2. Give INR lending to specialised finance companies involved in the equity market such as investment banks, exchanges, securities firms, asset managers and hedge funds subject to prudent limits. However these banks are not permitted to lend to the above entitities in foreign currency. Nor are they allowed to invest by way of equity into these specialised finance firms.

However they face various regulatory impediments in terms of providing products and services in fund raising:

1. Inability to provide equity funding to corporate customers in India or abroad.
2. Inability to invest INR or foreign equity to specialised finance companies involved in the equity market such as investment banks, exchanges, securities firms, asset managers and hedge funds.
3. Inability to trade on domestic and foreign equity markets.
4. Inability to setup hedge funds or any type of money management firms.
5. Lack of identical policy/regulatory treatment for “local” versus “foreign” firms.

6. Lack of identical policy/regulatory treatment for lending through loans versus corporate bonds.
7. Lack of identical policy/regulatory treatment for a domestic borrower as opposed to a foreign borrower, across currencies of denomination of lending.
8. Absence of a sound legal framework governing bankruptcy, with a well–developed "bankruptcy code" with adequate supporting institutions.
9. Absence of a legal framework which makes it possible to exactly codify the seniority associated with a given loan/bond.
10. Absence of regulations which enable equity capital requirements for credit portfolio to be based on the portfolio risk after all credit derivatives and other derivatives are taken into account.
11. Lack of access to liquid and risk-manageable INR and foreign loan and bond markets.
12. Absence of prudent limits for the INR and foreign debt financing based on credit risk of both borrower and lender.
13. Inability to engage in syndication, securitisation, cash-flow stripping, trading in loans, between a full range of finance companies and third parties.
14. Inability to provide holistic INR/forex financial structure to corporate clients comprising packages of equity, debt, convertibles, options, swaptions, caps, collars.
15. Inability to finance convertible instruments in INR or forex, either up-front or in "workouts".
16. Inability to exercise conversion options in INR or forex (issues of price, period, post-conversion ownership structure, ownership concentration, foreign ownership).
17. Absence of legal/regulatory framework that permits the handling of workouts that may involve debt conversion into various kinds of equity or quasi-equity.

1.2. Fund raising and investment banks

Investment banks in India are greatly disadvantaged due to restrictions and lack of regulatory clarity about fund raising activities. To make investment banks in India globally competitive in terms of debt and equity funding, regulations need to enable them to do the following:

1. Raise equity funding for themselves in India or abroad.
2. Provide equity funding to firms, INR or forex.
3. Setup hedge funds.
4. INR or forex equity provision for other providers of equity (securities, asset managers, insurance companies, hedge funds).
5. Trade in INR and forex equity markets either onshore or offshore.
6. Raise INR/forex debt resources for own use, for providing debt, for underwriting corporate bonds, or buying corporate bonds on the primary or secondary market.
7. Receive identical treatment between banks and IBs in terms of participation on the government bonds markets onshore and offshore.
8. Utilise securitisation and derivatives to perform debt transformation services for maturity, duration, coupon, currency exposure, credit enhancement.
9. Take up opportunities in distressed debt and workout funds.
10. Receive identical treatment for local and foreign firms in the distressed debt workout/reconstruction market.

In terms of providing composite funding structures, investment banks in India face the same issues as the commercial banks.

1.3. Fund raising and private banks

In order to provide a range of products and services in private banking, the following needs to be put in place in terms of legal/regulatory issues:

1. Removal of constraints against banks or specialist "private bankers" offering private banking services.
2. Enabling commercial banks to setup a private banking division, subsidiary or affiate.
3. Setting up regulatory infrastructure that lays down guidelines in terms of client solicitation, invitation for PWM services, global assets, global customers including local and NRI customers.

1.4. Fund raising and securities markets

In order to permit brokerage/security firms in India to tap the global market and make them competitive in fund raising activities, the regulatory/legal framework must provide and support the following which is currently not permitted:

1. Providing equity funding in INR/forex to customer firms.
2. Setting up of hedge funds.
3. INR/forex resource raising for banks, exchanges, money managers, hedge funds.
4. Investments in INR or forex in other providers of equity — *i.e.*, asset managers, insurance companies, hedge funds, mutual funds.
5. Trading in local and offshore equity markets.
6. Identical treatment of brokerage firms versus investment banks when it comes to funding equity directly or indirectly in INR or forex.
7. Raising INR/forex debt resources, for loans, underwriting corporate bonds, or purchase of bonds on the primary or secondary market.
8. Level playing field between banks and securities firms on the government bond market, on collateralised debt financing, and on recovery procedures in the event of default.
9. Offering transformation services based on interest rate derivatives, credit derivatives or securitisaion.
10. Level playing field for foreign/local firms, neutral treatment of local assets versus foreign assets.
11. Raising/providing funding using any debt or equity composite structure.

2. Asset management

The bulk of asset management is transacted through the world's major IFCs. Asset management includes a combination of front and back office functions. We look at two forms of asset management and the legal/regulatory impediments that exist from the point of view of banks, asset managers and brokers/security firms — discretionary asset management (assets are managed purely by the asset manager and the client has no involvement other than a broad view about risk exposure) and non-discretionary asset management (assets are managed with partial or full instructions from client).

2.1. Asset management and banks

Commercial banks have very strict restrictions and very little scope to engage in activities as far as asset management is concerned. To enable banks to compete in the IFS space, the following needs to be enabled:

1. Offering discretionary asset management services without restrictions on types of assets being managed (INR or foreign) and without restrictions on nationality of customer.

2. Flexibility in equity, debt and hedge funds.
3. Creating subsidiaries/affliates offering asset management services.
4. Smooth handling of SEBI/RBI regulations and supervision for fund management by commercial banks.
5. Absence of government regulation of fees and service fees.
6. Offering non-discretionary asset management, hold or actively manage assets for individuals, firms and trusts, regardless of nationality of customer.
7. Investing across all asset classes, to ensure global diversification.
8. Clarity on the role of RBI/SEBI in regulation.
9. Lending against non-dicretionary portfolio value.

Besides being able to offer all the services provided by commercial banks, private banks need to be permitted to operate freely in the asset management space to do the following:

1. Discretionary asset management of high networth individuals' personal wealth portfolios.
2. Invest across global assets using equities, debt, securities, private placements, mutual funds, derivatives, hedge funds, commodities, gold, art, wine, *etc.*
3. Contract with foreign private banks to have HNWI client portfolios managed abroad.
4. Invest in real estate or real estate funds, and then offer a full set of real-estate related services such as property management.
5. Do non-discretionary portfolio management across global customers and global assets.
6. Receive identical treatment for local or foreign customers.
7. Have their fiduciary obligations protected when they obey client instructions which result in losses.
8. Have the freedom to decide fees and service charges.

Investment banks need to be permitted to do all of the activities listed above for commercial and private banks, both for discretionary as well as non-discretionary asset management, but in the context of investment banking. The same would hold good for brokerage and securities firms.

2.2. Asset management and fund managers

We look at the legal/regulatory environment as it exists for mutual funds, insurance companies, pension funds and hedge funds in India and list the requirements that must be in place to enable these entities to compete in a global market.

As far as mutual funds are concerned, most of the regulatory requirements for enabling discretionary asset management are in place. We already have the following:

1. Rules on qualification and capitalisation of fund manager which permit a steady pace of entry.
2. Sound regulation of fees, entry and exit by customers, trading of fund assets, valuation rules, periodicity and communication of NAV and portfolio composition.
3. Almost a full range of asset classes permissible, except forex.
4. Almost a full range of products that can be offered, excluding forex based products.

What we do not have in place in terms of mutual fund asset management is neutrality between Indian and foreign mutual funds and Indian and foreign assets. There are restrictions on Indian mutual funds investing abroad and foreign mutual funds investing in India.

In terms of discretionary asset management by insurance companies, we do have a fair amount of regulations in place. Insurance companies can:

1. Choose between insourcing and outsourcing of their fund management.
2. Sell policies which bundle insurance with fund management.
3. Sell annuities.
4. Freely decide investment of annuity purchase proceeds.

What is yet not in place in terms of regulations concerning insurance asset management is the following:

1. Neutrality between local and offshore assets. Insurance companies have restrictions in terms of investing abroad.
2. While permitted to bundle insurance with fund management, there is no tax neutrality with other fund managers. A lot of insurance schemes qualify for tax concessions.
3. Ability to sell 'with profit' endowment funds.
4. Ability to sell mortgage insurance policies.

In terms of non-discretionary asset management, the following is not permitted:

1. Sale of tailored life insurance policies
2. Sale of tailored annuities
3. Sale of tailored 'with profit' endowment funds
4. Sale of tailored disability policies
5. Sale of tailored risk policies for individuals

With respect to the pension fund asset management process, there is a long way to go as far as the regulatory framework is concerned. The following needs to be enabled from the point of view of discretionary pension asset management:

1. Full range of assets in pension portfolios from government bonds to real estate and hedge funds. The current regulations are highly restrictive in terms of where pension fund money can be invested.
2. Reduced protectionism in terms of foreign pension fund managers operating in India.
3. A regulated pension fund management industry which can obtain economies of scale off the local market and then seek foreign customers.
4. Local strength in fund trusteeship and administration.
5. Neutrality between local and offshore assets.
6. Regulatory framework based on prudent management principles giving the fund manager flexibility on asset allocation.
7. Treatment of defined benifit pensions, in addition to defined contribution pensions, in regulatory framework.

As far as non-discretionary pension asset management is concerned, the restrictions on personalised tailored pension funds and guaranteed annuities need to be taken away.

On the hedge fund asset management scenario, a beginning has yet to be made. We need regulations which will permit the following:

1. Establishment of hedge funds
2. Ability to engage in a full range of activities
3. Ability to invest in assets across national boundaries
4. Ability to have customers across national boundaries
5. Removal of limitations on trading, churning or leverage (including borrowing from banks and other sources of debt)
6. Settlement of issues concerning disclosure and risk limits

3. Personal wealth management

Personal wealth managers or private bankers as they are sometimes called, customize investment programs to meet the specific needs of clients and provide a range of asset classes across which the investments can be made on behalf of the client. Mostly offered by banks, the high degree of customization makes personal wealth management a very labor intensive activity.

In terms of commercial banks offering PWM services, the same regulatory issues as concerns non-discretionary asset management apply. Besides these, the following needs to be enabled:

1. Ability to offer and manage a full range of personal assets such as gold, commodities, art, wine, real estate *etc.*
2. Ability to provide the customer with comprehensive services as a one-stop solution. This would include property management services, credit card services, travel, entertainment *etc.*

In terms of private banks in India offering PWM services, the following needs to be done:

1. Removal of contraints against banks or specialist 'private bankers' offering private banking services.
2. Enable commercial banks to setup a private banking division, subsidiary or affiliate.
3. List out regulatory issues concerning client solicitation, invitation for PWM services, global assets, global customers including local and NRI customers.

Investment banks need to be permitted to do all the activities of personal wealth management listed above, but in the context of investment banking. The same would hold good for brokerage and securities firms.

4. Global tax management

Global tax management provides a business opportunity for financial intermediaries, typically banks, to build strategies that optimize a corporation's global tax liabilities. Regulatory structures need to be put in place to enable the following:

1. Serve local customers with global assets and global customers with global assets.
2. Deal with NRIs, firms or trusts owned by NRIs.
3. Do full service global tax management for Indian multinationals, which requires substituting the services provided by foreign banks, foreign accountants and foreign lawyers.

5. Risk management

Risk management is an important activity at an IFC. Risk management consultants work with clients to identify sources of risk and design integrated solutions. We look at the regulatory framework that would need to be set in place in order to enable banks, asset managers and funds and brokers/security firms to avail risk management services in India.

5.1. Risk management and banks

To enable commercial banks to offer/avail risk management services, the following would need to be enabled:

1. Operations in derivatives markets for hedging risks of the core commercial banking book and for clients on an agency basis (possibly in the context of a personal wealth management structure).

2. Identical structure for currency, interest rate and credit derivatives markets, regardless of whether INR or forex.
3. Ability to combat political risk through derivatives and insurance.
4. Ability to cover market risk and operational risk.

Investment banks would require a similar enabling framework with respect to investment banking activities. So would private banks for risk management of private portfolios in currencies, equities, bonds and commodities and risk management of discretionary funds.

5.2. Risk management and the asset managers

The regulatory framework for risk management activities by mutual funds is partially in place to the following extent:

1. Mutual funds are permitted to trade in equity and equity index derivatives.
2. There has been full integration of derivatives positions into rules about valuation and disclosure.

However a lot of risk management activities essencial for fund management are not permitted in India. So are risk management products. To enable risk management on an IFC scale, regulations would have to be put in place to enable the following:

1. Use of derivatives for full range of arbitrage, hedging and speculation
2. Currency derivatives
3. Interest rate derivatives
4. Political risk insurance or derivatives
5. Other underlyings such as weather or catastrophe risk
6. Risk management through insurance
7. Neutrality between local and offshore derivatives markets

From the point of view of insurance companies, regulations will have to enable the offering of financial risk reduction insurance products ranging across currencies, interest rates, credit risk, political risk, catastrophes, weather, and any risk that can be analysed in actuarial terms.

From pension funds' point of view, regulations would have to enable the following:

1. Do maturity transformation of pension fund cashflows.
2. Use of derivatives for producing pension guarantees.
3. Trade in equity, debt, derivatives, commodity and property markets.

And finally regulations that would permit hedge funds to use derivatives, insurance, proactive trading, short selling and leverage.

5.3. Risk management and securities firms

To enable brokerage/security firms to avail/provide risk management, the following would need to be enabled:

1. Risk management of private portfolios and discretionary funds, across all manner of derivatives markets (currencies, credit risk, political risk, equities, bonds, commodities)
2. Proprietary derivatives trading
3. Neutrality between local and offshore markets, and OTC or exchange markets

6. Financial markets

Most world class IFCs provide financial institutions which provide trading in various asset classes such as currency, equity, bonds, commodities and derivatives. We look at the legal/regulatory system from the point of view of banks, asset managers and funds, and securities markets in terms of their access to various asset classes in India.

6.1. Financial markets and banks

At present, Indian banks have limited access to currency markets. Commercial and private banks need to be enabled to do the following:

1. Full fledged participation in speculation, market-making, hedging and arbitrage for all currency pairs out of INR, USD, CNY, EUR and JPY futures, options, swaps and exotics.
2. Participation out of Mumbai in Chicago, New York and London markets.

Private banks also need to be enabled to give HNI clients global currency management and currency trading services along with multi-currency checking, savings and deposit accounts.

Investment banks should be able to offer clients multi-currency facilities with conversion rights across currencies through swaps and swaptions. They should also be in a position to do OTC and tailored multi-currency facilities.

In terms of equity trading, commercial banks need to be enabled to do the following:

1. Invest in equities for proprietary in-house trading, with full access to leverage and/or short-selling.
2. Offer equity trading and portfolio management facilities to individuals, trusts and HNIs.
3. Finance equity trades through collateralised leverage.
4. Market making on equity spot and derivatives markets.
5. Equity derivatives arbitrage.
6. Accept listed equities as collateral subject to risk-based limits.
7. Engage in all the above without concern for the location of the exchange.

Private banks should be permitted to do the following:

1. Have in-house proprietary trading account.
2. Create in-house funds for private clients.
3. Operate in domestic and foreign equity markets, including access to borrowed shares, short selling, and derivatives.

Investment banks should be enabled access to equity trading and be able to do all the above from an investment banking perspective.

Commercial and private banks need to be allowed access to the entire spectrum of bond market products enabling them to do the following:

1. Take long/short/leveraged/repo positions on government bonds, sub-sovereign, GOI-guaranteed, municipal, corporate 'bonds' and other fixed-coupon instruments, junk bonds, workout bonds, ARC bonds.
2. Do market making for exchange-traded bonds.
3. Originate and trade stripped/securitised assets based on a full range of underlying cashflows.
4. Have neutrality between Indian and offshore assets in all the above.
5. Not be under financial repression that forces purchases of Indian government paper or requires high credit ratings on corporate bonds.

Investment banks should have access to the bond market and be able to do all the above from an investment banking perspective.

Commercial banks should have access to derivatives markets which would enable them to avail/offer a range of products and services as follows:

1. Build arbitrage businesses in all kinds of derivatives trading as a robust fixed-income business.
2. Do market making on derivatives exchanges.
3. Hedge in-house proprietary trading accounts.
4. Risk-manage corporate or individual client portfolios.
5. Risk-manage internal bond portfolio based on risk considerations, without limitations on long or short positions, or a bias against options.
6. Risk-manage commodity exposure.
7. Offer full-service contracts to securities firms and hedge funds, involing financing, recordkeeping, information feeds, order routing, sales support *etc.*
8. Have neutrality between Indian and offshore exchanges.

Private banks must be enabled to risk-manage client or proprietary portfolios, provide liquidity and have open speculative positions and trade in equity, currency, interest-rate and credit risk.

In terms commodities trading, commercial banks should be enabled the following:

1. Market making and arbitrage on commodity futures markets.
2. Take open or hedged positions.
3. Finance commodity traders on a collateralised basis.
4. Hedge exposure owing to collateral.
5. Have neutrality between Indian and offshore exchanges.

Private banks must be enabled to do the following:

1. Diversify and enhance private client portfolios.
2. Participate in a full range of commodities, well beyond bullion.
3. Provide liquidity to clients against commodity portfolios as collateral.

Besides being able to do all the above in an investment banking context, investment banks must be able to develop innovative new commodity contracts and be able to trade on established CBOT/LME/NCDEX contracts.

6.2. Financial markets and asset managers

We look at the regulatory/legal framework as it applies to mutual funds, insurance firms, pension funds and hedge funds in an Indian context.

Mutual funds in India are not allowed access to the currency markets. In an IFS setting, mutual funds as well as hedge funds would be allowed to do the following:

1. Currency conversions associated with a global portfolio.
2. Trading in currencies as assets.
3. Hedging currency exposure of a global portfolio.

In terms of equity trading by mutual funds, we have some regulations in place. For instance the transperancy and disclosure requirements, NAV and customer redemption rules and rules about fund liquidation and distribution of proceeds are fairly clearly laid out. However mutual funds are not permitted the following:

1. Access to the market for global mutual funds
2. Investments all over the world
3. Full range of fund types (sector, risk, geography)
4. Access to borrowed shares, borrowed money, derivatives trading and short selling

On the bond trading aspect, mutual funds can do a lot more. We have rules in place on NAV and mark to market, holding to maturity, trading the yield curve and so on. Regulations provide the following:

1. Ability to create debt funds (government securities, corporate bonds, *etc.*)
2. Access to trading the corporate bond market

However mutual funds still face financial repression where rules require purchases of Indian government bonds or require corporate bonds to have high credit ratings. Funds do not have access to trading the government bond market or debt securities all over the world.

As far as derivatives trading by mutual funds is concerned, some activity is permitted. Mutual funds are allowed to hold open positions on derivatives on index or single stocks. They are allowed to do arbitrage using derivatives and these arbitrage positions are treated as being a fixed income position.

However the following is still not permitted:

1. Risk-managing the portfolio including specific derivatives positions associated with specific risks (*e.g.*, A yen futures position when there is an investment in a firm which imports raw materials from Japan)
2. Holding positions on markets across the world, which flow from the core portfolio which is internationally diversified.
3. Participation in credit derivatives.

On the commodities trading front, there isn't much that mutual funds are permitted to do at the moment. They cannot establish commodity funds, undertake commodity trading in general or take speculative positions on commodities in India or across the world.

Much of the issues discussed above that apply to mutual funds are also applicable to hedge funds.

Insurance companies have no access to currency trading. To be able to compete in a global market, these companies should be in a position to offer a range of forex denominated insurance products and engage in activities such as:

1. Produce products with premia or payouts in foreign exchange.
2. Take asset positions in foreign securities and currency markets.
3. Manage currency exposure on assets or liabilities.
4. Provide insurance to companies on their foreign assets or liabilities.

While insurance funds are allowed to invest and trade in local equities, investments into offshore equities are not permitted. Also, sound rules need to be formed about extent of asset allocation into equities, matching equity holding to long-term liabilities and reserve requirements on equity assets.

In terms of bond trading, insurance companies face financial repression, where rules require purchases of Indian government bonds or require corporate bonds to have high credit ratings. Investment and trading in government bonds and corporate bonds across all rating categories is not permitted. Neither are insurance companies allowed to invest in bonds in all countries. There is a need to have sound rules about matching of bond cashflows and liabilities as well as reserve requirements on bond holdings.

In terms of derivatives trading, insurance companies face issues similar to those faced by mutual funds. So also in terms of trading on the commodity markets. Investments in

commodities such as gold or oil either through direct holdings or indirect paths such as ETFs is not permitted. Neither is trading and taking proprietary positions on commodity markets. Even hedging of commodity positions on derivatives markets is not permitted.

Pension funds should be able to take exposures in currency markets and design pension products which cope with foreign contributions or benefits, sell pensions to individuals or firms outside the country, globally diversify their assets and be able to manage currency exposure on foreign assets or liabilities. At the moment none of this is permitted.

While pension funds are allowed to invest in equity to a limited extent, they cannot hold equity indexes and individual stocks across countries. There are no clear rules about NAV computation of equity portfolios nor is there clarity about transperency and disclosure requirement.

As far as trading in bond funds, derivatives and commodities markets is concerned, the same issues that apply for insurance companies also apply to pension funds.

7. Securities markets

We look at the regulatory framework for financial exchanges that do currency trading, trading of equity and debt, derivatives trading and commodity trading. The only market in currency trading that exists in India at the moment is the interbank currency forward market. There is a need for an exchange that would offer spot or derivatives trading facilities on any currency pair. Similarly partnerships with global exchanges on transfer of currency derivatives positions need to be put in place. To enable entities to arbitrage and exploit price differentials across markets, there is need enable direct market access.

As far as equity trading is concerned, we have a fair degree of success in terms of the following regulations already in place:

1. Listing of ETFs including ETFs on closed-end funds, investment trusts, *etc.*
2. Disclosure and transperancy rules governing all trades.
3. Required minimum publicly traded stock that has to be issued.
4. Rules about proportions that can be owned by certain kinds of institutional investors.
5. Support for diverse array of market participants.
6. Flexible framework permitting multiple listing by a given issuer.
7. Sound rules about circuit breakers.
8. On-line realtime surveillance by exchange that is world respected.

What we are lacking in terms of regulations on the equity markets is the following:

1. Listing rules that enable listing of a diverse array of international issuers.
2. Listing of ETFs on commodities.
3. Neutrality between local and offshore issuers.
4. Support for borrowed shares and margin trading.
5. Consistency with global FATF approved AML-CFT regulations for members, dealers and customers.
6. Direct Market Access.

As concerns the bond markets, we have rules in place for listing of fixed income funds and ETFs. There are no restrictions on multiple listing. However the following still needs to be enabled:

1. Listing and trading of government bonds, sub-sovereign bonds, corporate bonds, with issuers from across the world.
2. Sound procedures for disclosure, transparency and surveillance.

3. Support for borrowed bonds, margin trading and short selling.
4. Direct Market Access.

On the derivatives trading front, a lot needs to happen. We need regulations in place that will permit the following:

1. Ability to innovate and create derivatives contracts on all underlyings in equity, currency, fixed income and commodities.
2. Global exchanges to trade local underlyings.
3. Placement of terminals by global exchanges in India and placement of terminals by Indian exchanges abroad.
4. Margin requirements based on overall portfolio risk, where there is an attempt at incorporating maximal information into the definition of the position, including OTC positions, asset holdings, *etc.*
5. International-style position limits.
6. Direct Market Access.

As far as commodity exchanges are concerned, there is a need for listing of all manner of futures and options on all types of commodities and providing fungibility of local contracts against those prevalent globally. All issues of market design and operations as seen with securities exchanges need to be implemented on the commodity exchanges.

As far are brokerage/securities firms are concerned, all issues that apply to banks in terms of trading on the various markets discussed above also apply to these firms.

8. Mergers and aquisitions

As organisations expand and diversify, global corporate deal-making has become an important activity. India has been an important player in this market. Regulations that permit banks to engage in M&A activity are well in place. Investment banks as well as commercial banks can engage in the following:

1. Arrange M&A among clients on a solicited/requested basis.
2. Arrange M&A among clients unsolicited, at investment bankers initiative.
3. Arrange M&A solicited/unsolicited among non-clients.
4. Promote M&A services in the corporate world in general.
5. Weave M&A into asset reconstruction or workout.
6. Do cross-border M&A involving Indian and non-Indian firms.
7. Play a role in M&A research and due diligence for the global market.

9. Leasing and Structured finance

Large scale projects often require funding from global sources, often by way of leasing or complex structured finance products. Regulations would have to enable both commercial and investment banks to do the following by way of financing alternatives:

1. Undertake structured leasing activities, under and international-style tax regime, for a full range of client-specific assets including aircraft, ships, containers, locomotives, wagons, cars, buses, trucks, computer equipment, *etc.*
2. Deal with assets abroad and assets subject to cross-border movement.
3. Be subject to sound provisioning requirements for leased assets.

From the securities markets point of view, we need regulations in place that would enable exchanges to offer spot and derivatives trading on securitised paper. So also enable them to offer a full range of complex derivatives required for putting together complex financing structures.

10. Project financing

To enable commercial and investment banks to do project financing, regulations must enable banks to do the following:

1. Structure and finance long gestation projects without restrictions on term lending (maturity, coupon, currency, collateral) and project bonds.
2. Issue long maturity corporate bonds, and use interest rate derivatives, in order to do duration matching.
3. Provide equity financing, convertible and subordinated debt, guarantees for export credits and suppliers' credit, financing import credits, *etc.*
4. Risk management of exposure through the project life (currencies, coupon, maturity transformation, performance bonds, contractor guarantees, *etc.*)
5. Construction financing.
6. Finance projects secured by a sequestered receivables cashflow (*e.g.*, Tolls).

Financial exchanges should be allowed to offer a full range of complex derivatives required for complex financing structures.

11. PPP Financing

PPP is probably the most obvious vehicle for putting together a physical and social infrastructure for a country like India. Much of the PPP activity in the world is done by investment banks. To make this happen in India, investment and commercial banks should be enabled to do the following:

1. Finance public obligations under PPPs (service provision financing, poor consumer financing, take-or-pay arrangements, maintenance cost subsidy, *etc.*).
2. Finance private sector obligations through performance bond guarantees.
3. Structure PPPs (legal, financial, accounting arrangements).
4. Access internationally credible PPP dispute resolution mechanisms.

12. Insurance and reinsurance

Risk management using insurance and reinsurance has become an important activity at an IFC. To enable banks and insurance companies to be able to offer products and services in this area, regulations need to enable the following:

1. Permit banks, both commercial and investment banks, to own insurance and reinsurance subsidiaries.
2. Have reasonable firewalls between banking and insurance operations.
3. Provisioning and investment for insurance risk without spilling into banking risk.
4. Creation of joint ventures with domestic or foreign insurance companies.
5. Selling insurance products through bank branches.
6. Use of tailored insurance products in the bank risk management process.
7. Being able to engage in derivatives transactions (*e.g.*, credit risk or interest rate risk) against insurance companies, either OTC or on exchange.

8. Selling insurance services either in India or abroad, either to an Indian client or to a foreign client.

Private bank client need to be able to participate in local or global insurance/re-insurance syndicates, such as Lloyds.

As far as insurance companies are concerned, regulations need to permit them to do the following:

1. Sell insurance products across the world insuring against global risks.
2. Participate in trading on the global reinsurance market.
3. Hold global portfolios in the management of assets.
4. Be subject to sound pruential regulations which do not discriminate against equity.
5. Participate in local and offshort, exchange traded and OTC derivatives.

To promote competitiveness in a global context, it is essential that entities operating in the insurance and reinsurance business are free from financial repression and are not forced to purchase Indian government bonds or restricted by requirements for corporate bonds to have high ratings.

Abbreviations

Appendix F

ADB Asian Development Bank

ADR American Depository Receipt

AMC Asset Management Company

AT Algorithmic Trading

AUM Assets under Management

BAMC Benchmark Asset Management Company (a mutual fund)

BCD Bond-Currency-Derivatives Nexus

BHEL Bharat Heavy Electricals Ltd. (an SOE electrical equipment maker)

BOB Bank of Baroda (an SOE bank)

BPCL Bharat Petroleum Corporation Ltd. (an SOE petroleum company)

BPO Business Process Outsourcing

BSE Bombay Stock Exchange

BSNL Bharat Sanchar Nigam Ltd. (an SOE telecom company)

BoP Balance of Payments

CAC Capital Account Convertibility

CAGR Compound Average Growth Rate

CBDT Central Board of Direct Taxes (the agency which implements central direct taxes)

CBEC Central Board of Excise and Customs (the agency which implements central indirect taxes)

CCI Controller of Capital Issues

CCIL Clearing Corporation of India Ltd.

CDO Collateralised Debt Obligation

CFMA Commodity Futures Modernisation Act

CMIE Centre for Monitoring Indian Economy

CRR Cash Reserve Ratio

DEA Department of Economic Affairs

DMA Direct Market Access

DOT Department of Telecommunications

EET Exempt-Exempt-Tax

EPFO Employee Provident Fund Organisation

ETF Exchange Traded Fund

FEMA Foreign Exchange Management Act

FII Foreign Institutional Investor

FIPB Foreign Investment Promotion Board

FMC Forward Markets Commission

FRBM Fiscal Responsibility and Budgetary Management Act

FSI Floor Space Index

FSMA Financial Services Modernisation Act

GAIL Gas Authority of India Ltd. (an SOE in the natural gas business)

GFC Global Financial Centre

GST Goods and Services Tax

GoI Government of India

HDFC Housing Finance Development Corporation (a financial firm working in home loans)

HNI High Net Worth Individuals

HNW High Net Worth

HNWI High Net Worth Individuals

HPCL Hindustan Petroleum Corporation Ltd. (an SOE petroleum company)

HPEC High Powered Expert Committee

IAS Indian Administrative Service

IDRs Indian Depository Receipts

IFS International Financial Service

IFSAT International Financial Services Appellate Tribunal

IGIDR Indira Gandhi Institute for Development Research

IIT Indian Institute of Technology

KPO Knowledge Process Outsourcing

KYC Know Your Customer

LCFI Large Complex Financial Institution

LIC Life Insurance Corporation (an SOE insurance company)

LLP Limited Liability Partnership

MAS Monetary Authority of Singapore

MOF Ministry of Finance

NBER National Bureau of Economic Research

NBFC Non Banking Finance Company

NCDEX National Commodity Derivatives Exchange

NCMP National Common Minimum Program

NDF Non Deliverable Forward

NGO Non Government Organisation

NRI Non Resident Indian

NSCC National Securities Clearing Corporation

NSDL National Securities Depository Ltd.

NTPC National Thermal Power Company (an SOE in electricity generation)

NUS National University of Singapore

OTC Over The Counter

PBR Principles Based Regulation

PFRDA Pension Fund Regulation and Development Authority

PN Participatory Note

PSU Public Sector Unit (Indian term for SOE)

PTCs Pass Through Certificates

PWM Personal Wealth Management

QIB Qualified Institutional Buyer

RBI Reserve Bank of India

RBR Rules Based Regulation (the opposite of PBR)

RFC Regional Financial Centre

RIA Regulatory Impact Assessment

SAT Securities Appellate Tribunal

SBI State Bank of India (the largest bank of India, an SOE)

SEBI Securities and Exchanges Board of India

SEZ Special Economic Zone

SLR Statutory Liquidity Ratio

SOB State Owned Bank

SPV Special Purpose Vehicle

STT Securities Transaction Tax

TDS Tax Deducted at Source

VOIP Voice over IP