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.