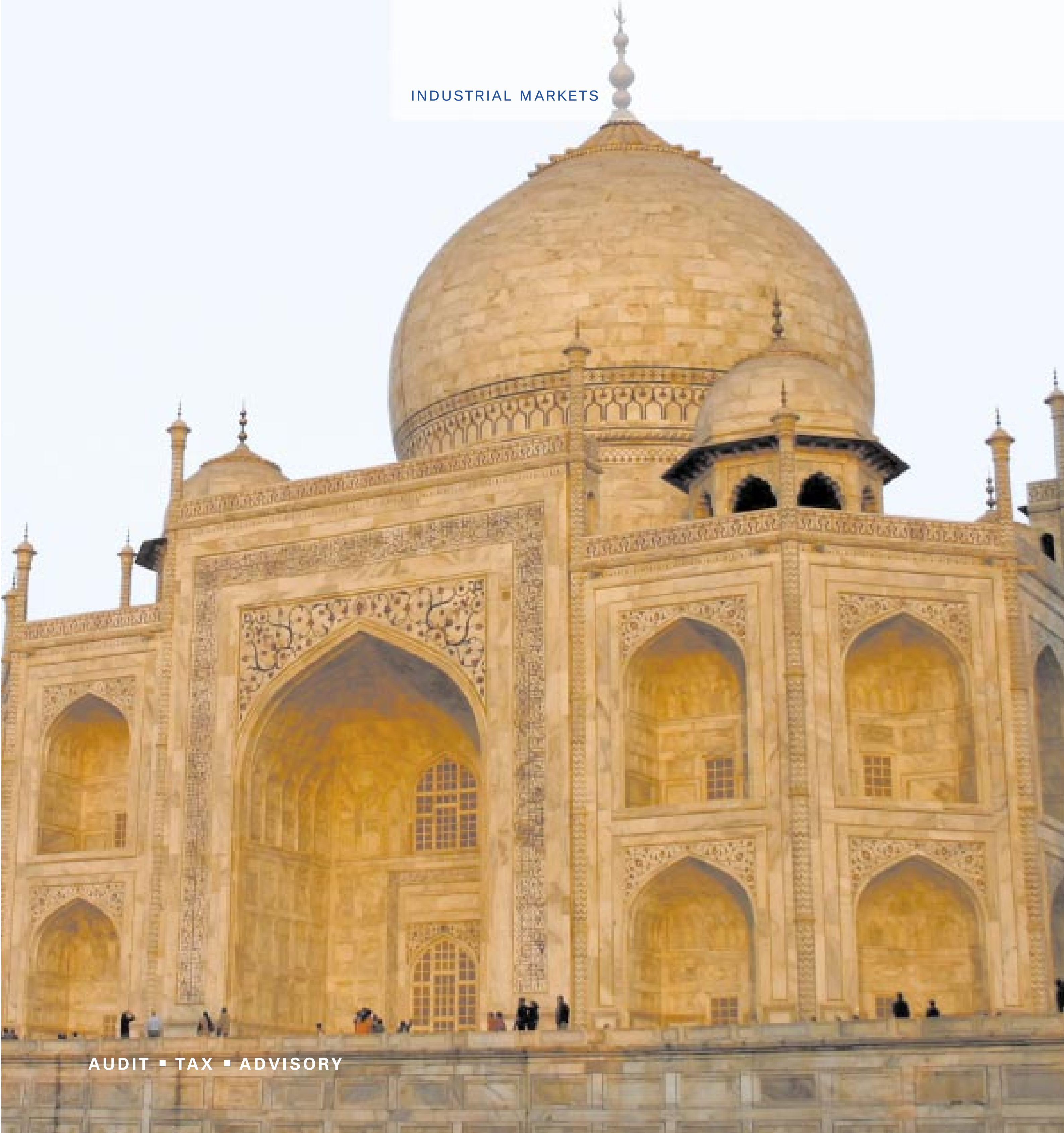
KPMG

INDUSTRIAL & AUTOMOTIVE PRODUCTS

Manufacturing in India

Opportunities, Challenges, and Myths

INDUSTRIAL MARKETS



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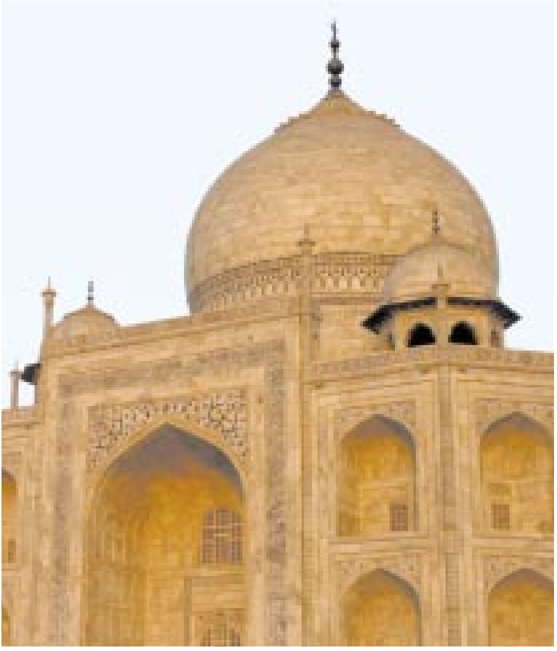
Unless otherwise stated information sources in this report are based on original interviews conducted on behalf of KPMG International in May 2005.

Manufacturing in India



Summary

Why India?

India represents an economic opportunity on a massive scale: China and India are likely to be the world's two biggest economies by mid-century, and although India has underperformed in the first lap of the growth race, there was a strong possibility that India may well move ahead.

Although India is still seen by industrial investors as an economy where risk is higher and the business environment more problematic than in rival Asian investment locations, India also offers some advantages in the region. The legal framework that protects investment is one of the best in Asia. The economy offers an abundance of technical and managerial talent, often with international experience. Geopolitical risk is diminishing consistently, in contrast with some of India's emerging economy rivals in Asia. And above all, India has a demographic advantage that should see its working age population continue to grow well into the century, increasing wealth and reducing cost.

The political economy

India is changing from a command economy focused on self-sufficiency to becoming a key link in the global economic chain. But India's ambition to catch up with other high-growth Asian economies is not always matched by its ability to implement change.

- ***Nation and state*** India is a federation of 29 states, and highly politicized. This means that an investment decision in India is quite likely to be affected by politics, and that needed changes in regulation and infrastructure development are often undermined by conflict and competition between state and federal governments. However, competition between states means that the total tax incentive package can be high.[1]

- ***Licensing, law, and reform*** Central government has succeeded in opening many sectors of the economy to foreign investment, while reserving others to state or local business. These continuing restrictions impose costs on manufacturers even though many manufacturing sectors (apart from strategic industries like defense and aerospace) are open for investment. According to the World Bank, the burden of licensing and bureaucratic administration has significantly reduced since 2000. In terms of companies' perception of the burden, India scores better than either China or Brazil on business regulation, better than either on the burden of tax and customs administration, and better than Brazil on the perceived level of corruption.[2]

Source: (1) The Economists survey, *The Tiger in Front* 5 March 2005
(2) World Bank Investment Climate and Manufacturing Industry, November 2004

- ***Investment procedures*** Investments in some economic sectors are now given automatic approval by the Reserve Bank of India.[a] In other sectors the government has attempted to streamline the process of approval through the Foreign Investment Promotion Board (FIPB). In practice companies report that decision-making can still appear arbitrary. Manufacturing investors can incorporate in India as Indian companies or foreign companies. Indian companies may be joint ventures or wholly owned subsidiaries, and foreign equity ownership can be up to 100 percent. However, foreign equity caps apply to several sectors.

- ***Labor*** Some companies say that labor legislation remains a significant drag on business. Other companies point out that location tends to determine the quality of labor relations. Many complaints focus on the rigidity of firing regulations – only Mexico is considered equally restrictive. Nevertheless, the labor pool is exceptionally rich, with nine million new entrants a year. It takes on average fewer days to fill skilled job vacancies in India than in either China or Brazil; remuneration costs are also at the low end of the emerging economy scale. India is marginally more costly than China for most senior managers, such as directors of HR and manufacturing, and CFOs. But costs are significantly less than in other emerging economies such as Brazil and Mexico.[1]

- ***Taxation*** Corporate taxation is high compared to European and U.S. rates, but average in world terms, and has been significantly reduced in the last 15 years – the top basic rate fell from 48 percent to 35 percent in 2004. The indirect tax burden varies from state to state: the federal government has current plans to introduce a unified VAT at two lower rates of 4 percent and 12.5 percent; (20 of the 29 states have moved to the new VAT regime starting April 2005). Companies say this can bring a significant reduction in operational costs. Tax-related industrial incentives include tax holidays, 100 percent deductible R&D and capital expenses, accelerated depreciation and exemptions or deferral of state sales taxes. The government is also committed to rapidly expanding the number of concessionary Special Economic Zones (SEZs) where tax is significantly reduced.[2] A new SEZ bill was passed in Parliament in May 2005.

Location and market

In recent years almost all foreign direct investment in India went to a small privileged group of states and territories: according to the World Bank's *Investment Climate Report 2004*, over 80 percent of FDI in 2000-2003 went to Delhi, Maharashtra, Karnataka, Tamil Nadu, Chandigarh, Gujarat, and Andhra Pradesh. But investment patterns are changing, say companies, with many looking further afield to less congested and cheaper states.

Note: (a) http://www.gujaratindustry.gov.in
http://www.midcindia.org/
http://www.citcochandigarh.com/about_citco/about_citco.htm
http://www.tidco.com

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004
(2) EIU *Country Commerce India*

- ***Domestic markets*** The consumer market is remarkably undeveloped. Consumer goods penetration is very low compared to other emerging economies, partly because potential consumers are more difficult to reach. India has a lower proportion of urban households compared to Asian competitors: it is estimated that around 70 percent of Indians live in the countryside, compared to around 60 percent in China.[(1)(2)] Consumption patterns are also different: as Indians have grown richer, discretionary spending has become focused outside the home. Unlike other Asian consumers, Indians have tended not to greatly increase their spending on clothes, personal care, and household goods.

- ***Infrastructure*** Infrastructure is top of the agenda for corporate planners in India. By far the most significant infrastructure constraint for manufacturing is the unreliability of power supply. On average a company can expect nearly 17 significant power outages per month, against one per month in Malaysia and fewer than five in China. At the same time costs are higher.[(3)] Transport is also a constraint, and companies focus on the weakness of ports and the road network (the deterioration of the rail system means that companies have moved most of their distribution to road). However, new road investment is bringing significant improvements, and public-private partnerships are beginning to be struck in infrastructure development projects.[(4)]

Source: (1) Asian Development Bank - *Key Indicators 2004: Poverty in Asia: Measurement, Estimates, and Prospects*
(2) *India's Changing Households* - Deutsche Bank Nov 2004
(3) World Bank Investment Climate and Manufacturing Industry, November 2004
(4) Economist Survey, India, 2004

Successful Manufacturing in India

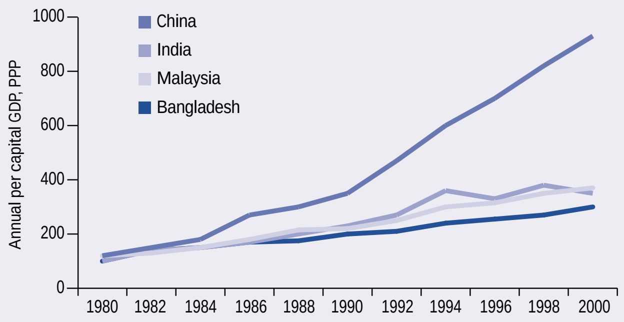
Part One: Why India?

India is one of the fastest-growing large economies in the world. With a population of around one billion people, with huge human and natural resources, and with costs that are at the very low end of the global average, India represents an economic opportunity on a massive scale.[(1)(2)]

India is one large part of a still larger Asian story. The world's economic centre of gravity is shifting-away from the established, wealthy economies of Europe, Japan, and North America and towards the emerging economies of China, India, and the states of South East Asia. This shift is probably unstoppable. The established economies are high in costs, especially manufacturing costs, and poor in population resources, especially over the period of the coming half-century. Great improvements in physical and communications infrastructure and the dismantling of barriers to investment and trade mean that economies like India and China can now leverage their mobile and low-cost labor pools on a global scale.

The result is Asian growth rates that are now and are anticipated to remain well above the global average. China has been growing at 10 percent or more since the beginning of the decade. India has grown at over 5 percent, and is probably expanding at over 8 percent this year and most likely next. Compare that to European growth of less than 2 percent on a 10-year average, and U.S. growth of around 3 percent. On these trends China and India are anticipated to be the world's two biggest economies by mid-century.[(3)]

Growth rates for India and other key Asian economies 1980-2003



Source: World Bank Investment Climate and Manufacturing Industry, November 2004

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004
(2) IMD Competitiveness Survey 2004
(3) EIU Country Commerce

In unadjusted U.S. dollar terms Indian growth dipped soon after the millennium, reflecting not only the world growth downturn that hit bottom in 2002 but also the exceptionally severe drought that hit India in that year. It also took until 2003 for the Indian corporate sector to unwind the capacity overhang caused by over-investment in the mid-1990s.

Many commentators assume that China will eventually be the world's largest economy. This is not assured: half a century is a long race, and India has some advantages that China lacks. But the fact is that India underperformed in the first lap of the growth race. As a result, India is now widely seen by industrial investors as an economy where the business environment remains challenging.(1)(2)(3)

A challenging environment

India has changed, and fast. "If you had asked me 15 years ago I would have said there was no hope for India, economically," says Kuldip Khushoo, head of manufacturing at Honeywell Automation India. "There were so many regulations and restrictions, it was enough to send anyone crazy. But now there has been a sea change, a real opening of the economy." So what holds investors back from committing to India? More than anything else, it is the quality of government and administration.

First, there are doubts about the commitment of successive governments to deliver rapid reform in what many agree is one of the most regulated and bureaucratic of the emerging economies. The reform process began under the Congress Party at the start of the 1980s, passed into the hands of the nationalist BJP government in the 1990s, and back into today's Congress-dominated coalition government after the general election of 2004. Both Congress and the BJP proclaim the cause of reform: actually dismantling India's countless licenses, charges, and administrative barriers to business is another matter entirely, and a significant part of India's labor cost advantage is cancelled by the excessive bureaucratic cost of doing business. After all, India spent the first four decades of independence trying to limit the influence of foreign capital in the economy. Those attitudes die hard. When Finance Minister Palaniappan Chidambaram presented the 2005 budget earlier this year, he still had to ask parliament's indulgence for the very fact that the federal government wanted to encourage foreign investment.

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004
(2) Economist Survey, India, 2004
(3) The Economists survey, *The Tiger in Front* 5 March 2005

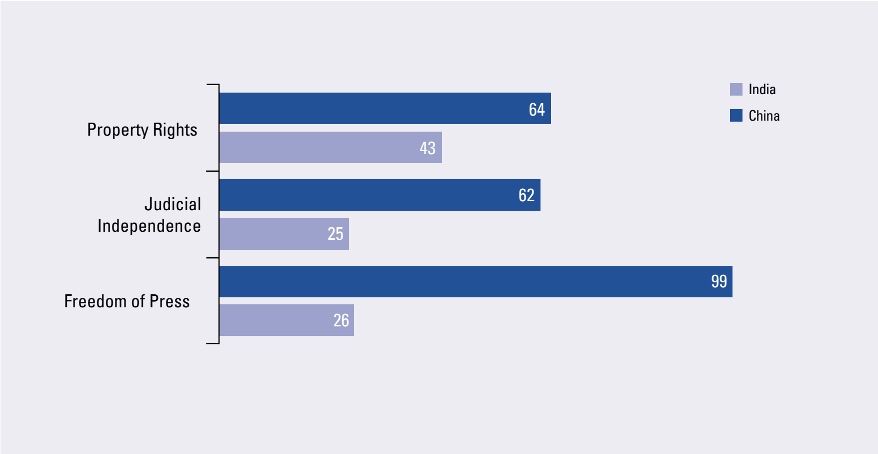
Corruption is also a significant cost, although when asked companies are usually less concerned with corruption and more concerned with labor flexibility and productivity, communications costs, and the total cost of power supplies. "On corruption we have a very clear policy – we won't tolerate it," says Suhas Kadlaskar, director of Corporate Affairs and Finance at DaimlerChrysler. "Now you can't say, I won't invest in India because there is corruption. You just have to accept the fact that you will have to find your own way."

But if corruption is an everyday reality, companies point out that it is not as corrosive as in other economies. Says Pradipta Sen, President of Emerson India: "One advantage of India is that if you do have to walk away from a deal [where the company suspects corruption], you don't get penalized. You don't get labeled as a bad news company, which can happen in other economies."

The variability of India's score on these issues, region by region, means that India is not one investment location, but many. Several of the 29 states remain virtually off limits to international investors, while only six states in the west and south of India have accounted for the lion's share of foreign direct investment in recent years.[1] And while costs and obstacles to investment are high in national terms, things are quite different in these six states, several of which are highly competitive in terms of productivity, flexibility, and quality-of-life attractiveness.

India also offers some advantages in the region. Compared to other Asian nations, the quality of many of the institutions that influence business environment is high.[1] Property rights are watertight and enforceable; the judiciary is highly independent; freedom of the press and political life is assured.

World competitiveness - rank out of 102 countries (the lower the rating, the higher the competitiveness)



Source: World Economic Forum

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

India has already achieved very significant deregulation since 1990: for example, the number of sectors open to foreign participants has expanded steadily, while import and export duties have been progressively reduced. There is also continued cross-party support for continued reform, despite a political environment that is often tempestuous. Many analysts predicted that the election of a Congress-led coalition government in 2004 could derail India's economic liberalization process, as the Congress Party depended on left-wing partners disinclined to support reformist legislation. That has not happened: the 2005 budget was widely seen as a balanced attempt to keep liberalization on track without alienating Congress's coalition partners. In addition, government has recognized that its economy cannot be grown through services alone: according to Ashok Jha, India's Secretary for Industrial Policy and Promotion, the government believes that service sector growth alone can no longer be expected to support growth of 8 percent. He says the government now wants to turn its attention to manufacturing and its potential to raise India's long-term growth rate.

India vs China

Will it be India or China that wins the race to dominate the world economy in the second half of this century? Many assume the answer has to be China, the economy that has been growing and drawing in manufacturing investment at an astonishing pace for the last two decades. But this is a long race, and India has several long-term advantages.

China has certainly made most of the running in recent years. In 1950 China was the poorer country, with per capita GDP in today's dollars of U.S.$439, against U.S.$619 for India. By 2003 the Chinese figure had leaped ahead to U.S.$1,100, while India had slipped to U.S.$530.[1]

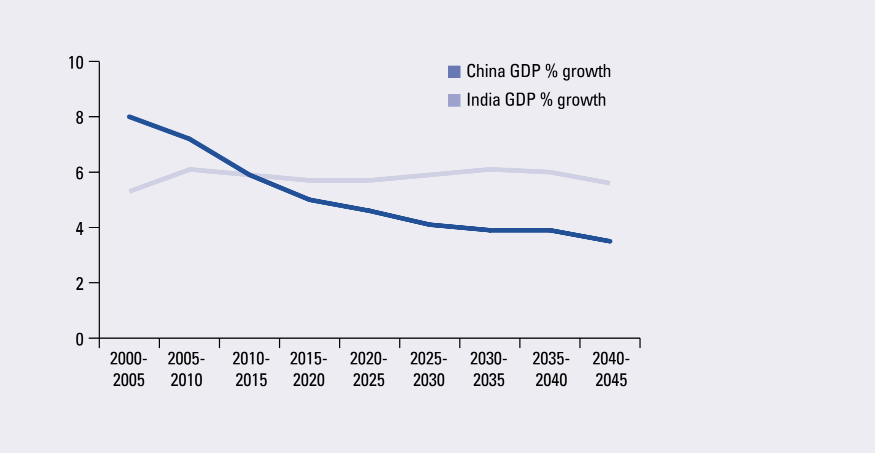
The disparity is highly marked in the relative record on foreign direct investment. According to Chinese figures, well over U.S.$50 billion in FDI is now going into China each year: today it is hard to think of a significant cross-border company that does not have manufacturing or services operations based in China.[2]

India is a long way from being able to claim the same, even though much has been achieved since the government of Rajiv Ghandi began the long, slow, and painful process of opening up the economy. Over the 1980s the growth rate rose from 3.5 percent to over 5 percent; a financial crisis in 1991 prompted a bigger and faster deregulatory reform package with cuts in trade taxes and sell-offs in the state-owned economy. Growth crept up further, to 6 percent, but that level is still well below the growth of around 9 percent that China is currently recording.[1]

Source: (1) The Economists survey, *The Tiger in Front* 5 March 2005
(2) World Bank *Global Development Finance 2005*, April 2005

But that is not the end of the story. Firstly, there is reason to distrust the official investment figures. Chinese official sources are sometimes inconsistent (in many areas the aggregate of local figures does not match the national totals) and inflated by double counting. Neither do raw investment figures record the quality of investment. According to the Confederation of Indian Industry, the average return on investment in India is over 19 percent, compared just over 14 percent for China. That higher return is a reflection of the higher value-added manufacturing investment that India attracts. "If you are looking at high volume and relatively low technology manufacturing, China tends to be more competitive," says Kuldip Khushoo of Honeywell. "But in lower-volume manufacturing where technology use is more intensive, then India is better," he says. Another foreign manufacturer with many decades' experience in India agrees: this company says that "India is very competitive at low volume, high specification engineering work, which is why we are now talking about using India as a global source point for these products".

GDP growth



Source: Goldman Sachs

India has a demographic advantage. India's working-age population is likely to continue to grow for the next two decades at least, while China's is now beginning to decline. And in this global economy demographics drive growth: over the last century there has been a consistent positive correlation between long-term growth rates and the low-dependency ratios associated with relatively youthful populations. According to a recent long-term growth forecast from banking group Goldman Sachs, demographic patterns may put Indian growth well ahead of Chinese growth by mid-century.

Just now confidence is booming in India, with record growth and low inflation. If recent history is any guide, the euphoria will not last – domestic confidence tends to be highly cyclical in India. But the longer-term outlook is exceptionally positive: Indians may at last have to get used to success.[1]

Security improves

Higher growth usually brings higher risk. The emerging economies of Asia are no exception. Along with a higher level of political uncertainty and greater operating risks, there are also regional security risks – the possibility of civil disturbances, cross border war, perhaps even nuclear conflict. These threats are not analysts' fictions: in the last half century India has fought one war with China and three with Pakistan. Added to these longstanding cross-border rivalries there is the very real threat of civil strife within India itself.

Yet today many of these threats are receding fast. Relations with both Pakistan and China are more encouraging than at any time since independence. This reflects more than just the post 2001 realities of regional diplomacy; emerging economies in Asia are increasingly aware that they are mutually dependent on each other not only for export markets but also for labor and even inward investment (a recent report from the World Bank suggests that at least a third of FDI going to emerging economies came from other emerging economies).[2]

The improvement in India's security prospects is recent, but there is certainly a distinct sense in India today that the country has grown tired of the cost of perpetual conflict on its borders: for many Indians the heady acceleration of the economy is becoming too valuable to be put at risk by another cycle of conflict with neighbors.

The place and the market

When asked what drives their Asian investments, international companies almost invariably state that the primary need is to service local markets. To achieve this objective they may follow a number of strategies: some manufacturers build a plant in India to service local markets; some subcontract manufacturing operations to local companies; and some bring in product from plants already established in other low-cost economies. Many do a combination of all three. Says one diversified manufacturer, "We build facilities if the local market is strong, with good margins. If the market is low margin and highly competitive, we tend to subcontract. And where we already have the capacity outside India, we will import. Everything depends on the market, the margins and global capacity."

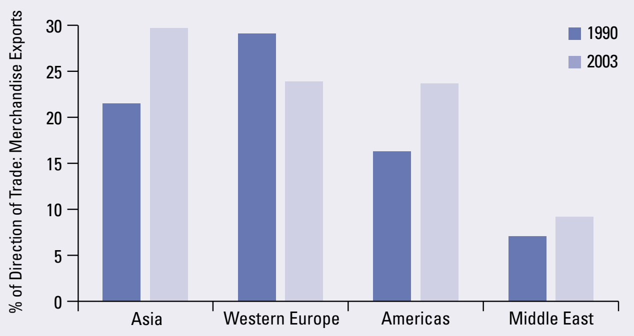
Source: (1) Economists survey, *India,* 2004
(2) World Bank *Global Development Finance 2005*, April 2005

India's domestic market is underrated, but it is also underdeveloped. It includes a large and growing middle class that controls a significant reserve of disposable personal income.[1] Yet this market remains largely one of potential.

The challenge for domestic manufacturers is to succeed in a highly regional market. A patchwork of cultures and languages, federal India also has a highly uneven pattern of personal and infrastructural wealth. Average state incomes in Punjab, Gujarat, and Maharashtra are around five times the level in Bihar, for example. Some urban and union territory areas are on average much richer still, while large rural areas of Bihar, Jharkand, Uttar Pradesh, and Orissa are officially destitute.[a][2][3]

Can India also grow as a manufacturing exporter? Many companies think so – Ford, for example, is already exporting in volume from its plant in Chennai. As a global manufacturer India is well placed by geography, language, and historical association to service customers in advanced economies, while as a regional manufacturer India has highly developed historical trading links with the Middle East and Africa as well as its own south Asian back yard. Changing patterns of trade show that Indian trade, in common with that of regional competitors, is inexorably moving away from the traditional markets of Western Europe and towards the Middle East, the Americas, and above all other Asian markets. In trade, too, the Asian century is taking shape.[4]

1990 – 2003 shift in trade



Source: Asian Development Bank - *Key Indicators 2004: Poverty in Asia: Measurement, Estimates, and Prospects*

Note: (a) http://www.gujaratindustry.gov.in
http://www.midcindia.org/
http://www.citcochandigarh.com/about_citco/about_citco.htm
http://www.tidco.com

Source: (1) *India's Changing Households* - Deutsche Bank Nov 2004
(2) Economists survey, *India,* 2004
(3) The Economists survey, *The Tiger in Front* 5 March 2005
(4) Asian Development Bank - *Key Indicators 2004: Poverty in Asia: Measurement, Estimates, and Prospects*

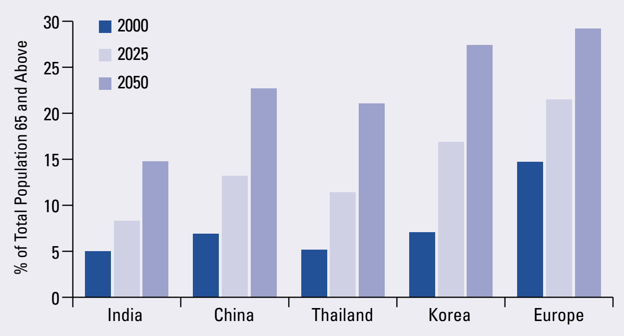
The demographic advantage

One of India's greatest advantages in the race for growth in Asia is its demographic profile. The working-age population is likely to continue to grow relative to total population for the next two decades. By contrast many other Asian economies are facing imminent or present declines in working-age populations. In the growth stakes this is critical: economic growth is closely correlated with demographic growth.[1]

Increases in wealth, improvements in life expectancy, and increased access to birth control are contributing to reducing fertility rates worldwide. The reduction is marked in developing countries: the World Bank's population data shows that since the 1970s medical care and birth control have dramatically reduced the number of children born per couple, and dramatically increased the proportion of citizens living past retirement age.[1]

India, however, is one of the handful of countries where not only overall population is rising but the proportion of citizens of working-age is also growing. Unlike China, where the proportion of working-age citizens is likely to fall from around 2010, India is likely to have a growing employed workforce for at least the next 20 years. A growing labor force can enable higher growth rates and create an urgent political need for growth: according to the Asian Development Bank India needs to achieve around 8 percent average annual growth over the next two decades to create employment for new entrants to the workforce. India's forecasted lower age dependency ratio over the next half-century means that public finances could come under less strain than in many other countries, potentially making infrastructural investment easier and allowing the economy to continue growing well above the global trend.

Percent of population 65 and older



Source: UN *World Population Prospects* (2004 revision) published by the UN Population Division, the standard source for global demographic data and forecasts

Source: (1) *Asian Development Bank Key Indicators 2002*: Population and Human Resource trends and challenges

Part Two: The Political Economy

India is a challenging economy in which it is nonetheless possible to succeed. Successful companies are likely to be those with a better grasp of India's complex and contradictory web of rules, institutions, and practices, and which accept that while change is in the air, implementation of change often leaves a lot to be desired. "The economy is being liberalized,' says Suhas Kadlaskar of DaimlerChrysler, 'but it takes time to liberalize the mindset. Indian bureaucrats will have to keep up with the liberalized world economy and we are sure they will."

Nation and state

India is a federation of 29 states. There are also several small 'union territories' and the separate state capital territory of Delhi. State boundaries tend to reflect linguistic divisions, such that the culture and economy of one state may differ markedly to that of a neighbor. There are great differentials in local growth rates: for example, the economy of Maharashtra is growing at around 8 percent, compared to less than 4 percent in Bihar and Orissa.(1)

India is highly politicized: with 29 states and staggered election timetables India is generally in the grip of a significant election somewhere. This means that investment decisions in India are quite likely to be affected by politics, especially if it is a large investment. "It is always that much harder to implement very large projects, because large projects attract so much political interest," says K. Rajagopal, CFO of ABB India. "You need to manoeuvre around many different interests, inevitably the energy you have to expend is greater" And Indian politics is a maelstrom. The federal political scene is still dominated by two national parties, the Congress Party of India and the Hindu nationalist Bharatiya Janata Party (BJP). But these two parties are no longer as dominant as they were: state politics is becoming increasingly significant, and state parties often owe little allegiance to the national parties or national issues. So while a Congress-led coalition currently controls the federal government (after general elections in 2004), that may mean little in poor north-eastern states where government may be driven by local politics.

But if the Indian political scene is both confused and confusing, it has the advantage of flexibility. Whatever party holds federal control in Delhi, local interests can still find representation at the state level. Social and religious tensions are inevitable in India: Indian democracy helps to neutralize those tensions, an advantage that economies run by monolithic political parties do not have. But, simply, the risk of a political explosion could potentially be higher in China than it is in India, where democracy has roots that are six decades deep.

Source: (1) Economists survey, *India*, 2004

Taxation in India

India's commercial taxation system is unusually complex, especially where indirect taxes are concerned. While income tax and excise and customs duty are set by central government, states and municipalities also levy their own taxes and provide discretionary exemptions to attract investment. Although tax policy and many tax rates are set by central government, states and municipalities also levy their own taxes which can often overlap with state taxes. However, the taxation regime is moving in the direction of greater simplicity and predictability.[(1)] Nevertheless, individual investment decisions are likely to have tax implications that can only be established with professional assistance: all investors are recommended to consult a professional taxation advisory service for advice on individual cases.

The accounting year in all cases is April 1 – March 31. All federal taxes are collected by the Central Board of Direct Taxes and the Central Board of Excise and Customs. Tax inspections have in the past constituted a considerable administrative burden for some companies: since 2003 the tax authorities have said that tax inspections are on the basis of computerized random selection. India has double taxation agreements with most large economies; an exceptional tax treaty with Mauritius gives a capital gains tax exemption for investing companies based in Mauritius (making it appear in official statistics that Mauritius is a leading investor in India). Transfer pricing rules are primarily in line with OECD practices.[(1)]

Corporate taxation is high compared to European and U.S. rates but average in world terms, and has been significantly reduced in the last 15 years – the top basic rate fell from 48 percent to 40 percent in 2004. Basic rates of 35 percent for Indian-incorporated businesses and 40 percent for foreign companies are pushed up to nearly two percentage points higher by a 'corporate' surcharge of 2.5 percent and an education surcharge of 2 percent, levied on the taxable amount.[(1)]

Companies and individuals are liable to wealth tax of one percent payable on certain assets above a threshold value of Rs 1.5 million. Wealth tax is aimed primarily at economically unproductive assets. Municipalities and states may also levy taxes on land value and land revenues.

Source: (1) EIU *Country Commerce India*

Certain service businesses are liable to a service tax introduced in 1998 to create government revenue from the explosive growth of the service sector; the total effective rate, including surcharges, is 10.2 percent. Service tax is not levied directly on revenues from manufacturing, but manufacturers may be engaged in some of the categories of business liable for this tax, such as warehousing and financial leasing.

Calculation of liability for direct corporate taxes varies according to the form of incorporation of a business. Resident Indian companies are taxed on gross worldwide income less deductions, including most non-capital business expenditures and also some local taxes and customs duties. There are also deductions for layoff expenditure, designed to reduce the cost of hiring and firing. Indian branches of foreign companies are taxed on the profits attributable only to that branch, at the higher foreign company corporate tax rate. Foreign companies buying weak local companies selected by the Reserve Bank of India (RBS) for takeover get special tax breaks that allow business losses and unabsorbed depreciation to be carried forward for long periods.

The indirect tax burden varies from state to state, although the main indirect tax burden is from federal levies. Value-added tax has until recently been applied in all states at various rates: until 2005 this tax was called excise duty and levied at three rates of 8 percent, 16 percent and 24 percent, plus local sales taxes levied by individual states. However, beginning in April 2005 the federal government has plans to introduce a unified VAT at two lower rates of 4 percent and 12.5 percent, the lower rate applying to industrial inputs and capital goods among other categories. Companies should note that the success of the new VAT system is not assured: similar reforms have been postponed on at least five occasions in the last ten years, and at least seven states have yet to agree to the new VAT rates; and it remains uncertain whether VAT paid in one state will be allowable as a credit in another state. Customs duties on both exports and imports have been falling in recent years: the top rate of basic duty is now 20 percent.

Direct and indirect corporate taxation can be reduced through a number of tax-related industrial incentives. These include tax holidays, 100 percent deductible R&D and capital expenses, accelerated depreciation for certain investments (mainly in environmental protection categories) and exemptions or deferral of state sales taxes. Actual or intending exporters are eligible for concessional customs duty rates for imported capital goods under the Export Promotion Capital Goods Scheme. Exporters may also qualify for special tax treatment if they are set up as Export Oriented Units (EOUs) or in designated Export Processing Zones (EPZs). The government is also committed to rapidly expanding the number of concessionary Special Economic Zones (SEZs) which allow a wider range of business operations than either EOUs or EPZs, and which shield foreign investors from a range of normal Indian commercial regulations. Benefits in SEZs and some other concessionary zones include a wide range of duty – free imports, a 100 percent tax holiday until 2010, exemption from sales and service taxes, and the right to sell some export tax-free products into the Indian domestic market. However, promised liberalization of hire-and-fire regulations in the SEZs have not materialized.

Personal taxation is levied on less than 4 percent of India's population, but is important for both expatriate and local executive remuneration. Income is taxed on a three-tier assessment, with income above Rs 1million (£12,610) taxed at 30 percent plus a 10 percent surcharge on the tax liability. Individuals are liable for income tax if they spend at least 182 days in India in a year, or 60 days if they have spent 365 days or more in India in the preceding four years. Expatriate managers can avoid personal taxation if they qualify as "not ordinarily resident" by virtue of having been in India for fewer than two years in the preceding seven. If they do not qualify they may be liable for tax on all income, including foreign income, although this liability is yet to be tested in court. Individuals are also liable for wealth tax on non-productive assets.

Licensing, law, and reform

In recent memory the Indian economy was still based on a socialist system of centralized control developed under the leadership of Jawaharlal Nehru, India's first prime minister. Key industries were taken into state ownership; all economic activity was subject to license and administrative management; taxes were high, and import duties prohibitive. The thrust of policy was to achieve economic development without the participation or influence of foreign capital.

India has achieved a remarkable political turnaround in reversing this policy. Yet a large part of the historical system of control still exists, and continues to absorb immense amounts of investors' time, money, and energy. But equally the program of economic liberalization begun a quarter of a century ago has succeeded in dismantling much gratuitous regulation, and continues to clear space for profitable operations.

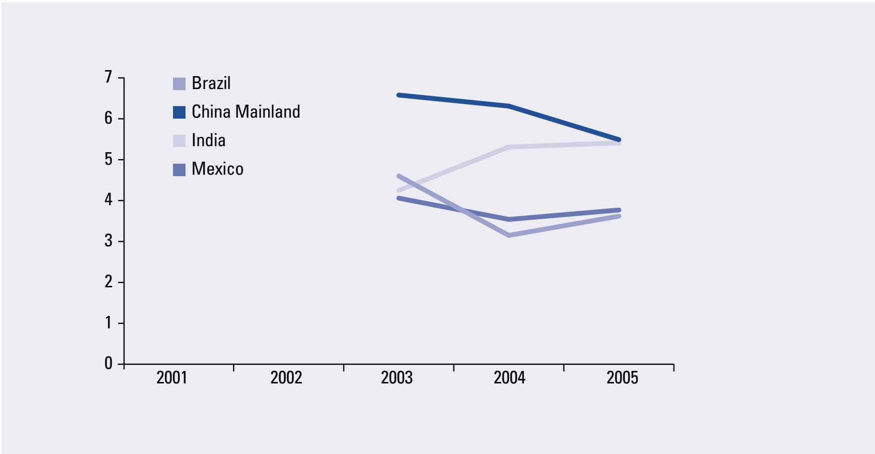
Liberalization is increasingly an issue for state governments as much as for central government. Power generation, for example, is usually in state hands, as is the power to progress or hinder many infrastructure developments. Meanwhile central government has succeeded in opening many sectors of the economy to foreign investment, while reserving others to state or local business (the full list of 'reserved products' still runs to around 600 categories, although it is shrinking annually). For example, vehicles, consumer electronics, and white goods are fully liberalized, while insurance and media investments are restricted to minority partnerships, retailing remains barred to foreign investors, and defense, and aerospace are in state hands.(1)

These continuing restrictions impose costs on manufacturers. One diversified European manufacturing company points out that firms with extensive facilities in India have large insurance needs and they are required to use local state-owned insurance companies. "The result is that prices are high, and as a manufacturer we have to pay significantly higher premiums than are necessary" the company says. K. Rajagopal of ABB India adds, "I think it will take at least another four or five more years to get parts of the financial system really opened up."

Source: (1) EIU *Country Commerce India*

According to the World Bank's survey on investment climate and manufacturing,[1] which tracks changes in the Indian investment and operating environment between 2000 and 2003, manufacturing companies do find the burden of administrative compliance, complex taxation, and corruption considerable. But the Bank also notes that in several key indicators of the costs of doing business in India there are considerable disparities between states (this is discussed in more detail below), and that many ratings have significantly improved since 2000. India is an environment where companies can expect incremental but consistently positive change. Overall, according to the IMD global competitiveness database, the overall ease of doing business in India is now on a par with China, and better than in other emerging economy competitors.

Ease of doing business



Source: *World Competitiveness Yearbook*, published by IMD International, a Swiss business school, 2005

High operating costs, also affect sectors differentially. Companies report that they believe that corruption does not significantly affect productivity in high-cost technology-rich businesses; it is reported to have a negative effect in resource-based industries. Typically companies say that corruption is low level, and an irritant rather than a critical issue: "It is usually nothing more than junior officials wanting to be paid to shuffle papers from one desk to another," says Kuldip Khushoo of Honeywell.

Across sectors, one of the most commonly cited negative factors for manufacturing were power availability and cost (discussed below) and the cost of excessive bureaucracy and indirect taxation. Completing reforms of the tax and business administration systems could improve average manufacturing labor productivity by 60 percent, the Bank calculates.[1]

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

Inward investment: ways and means

India has been officially open to inward investment since 1991, when the federal government embarked on a second round of economic liberalization. In recent years the focus has been on attracting investment in infrastructure, energy, telecommunication services, and software development. Only recently has government begun to attract a wider FDI presence in manufacturing.

Although the rules governing permissible inward investments are complex and restrictive, they are also transparent, says Pradipta Sen of Emerson India: "It is not like China, where government will scrutinize every single proposed investment in terms of how much benefit does this investment bring to the economy. In India, if an investment falls within the policy guidelines, then it will be approved – there is no short cut, but there is almost total predictability."

Investments in some economic sectors are given automatic approval by the Reserve Bank of India.[1] In other sectors the government has attempted to streamline the process of approval through the Foreign Investment Promotion Board (FIPB); in practice companies report that decision-making can still appear arbitrary, and much time is taken up through the need to gain approval from numerous subsidiary agencies. Investments are also limited by sector. Investments of 100 percent are permitted in a wide range of businesses from advertising to pharmaceuticals. Other sectors such as media and banking are subject to investment caps; a diminishing list of sectors, such as retail trading, remain effectively closed to foreign participation. However, the FIPB considers Foreign Direct Investment (FDI) proposals that fall outside the sectoral and cap limits on a case-by-case basis. The Secretariat for Industrial Assistance (http://siadipp.nic.in/sia/default.htm) at the Ministry of Commerce and Industry, and the Indian Investment Centre (http://iic.nic.in/), as well as the FIPB (http://finmin.nic.in/the_ministry/dept_eco_ affairs/fipb/fipb_index.htm), both at the Ministry of Finance, can offer guidance on current policy. The Foreign Investment Implementation Authority (http://siadipp.nic.in/sia/fiia.htm) in the Ministry of Commerce exists to help intending investors co-ordinate approvals with different arms of government; large independent investment projects may also get procedural assistance from the strategic management group in the Prime Minister's Office (http://pmindia.nic.in/).

Source: (1) EIU *Country Commerce India*

Manufacturing investors can incorporate in India as Indian companies or as foreign companies. Indian companies may be joint ventures or wholly owned subsidiaries, and foreign equity ownership can be up to 100 percent. However, foreign equity caps apply to several sectors: for example, defense industries are limited to 26 percent foreign holding, aviation is limited to 74 percent, and trading companies are normally limited to 51 percent although up to 100 percent is allowed in some categories of trading. A wide range of manufacturing operations are not subject to limit, but it is vital to obtain advice on the fast-changing equity limit regime from the Secretariat for Industrial Assistance: limits can be instrumental in deciding the corporate form of investment, although some companies seek joint ventures in the absence of equity limits to take advantage of Indian market expertise. Many foreign investors entered India in a JV agreement and later took full control of the business in order to operate in new business areas. Honeywell is typical: "We began as a joint venture with Tata but exporting was not allowed under the JV agreement, which is why we have only just begun to export from India," says Kuldip Khushoo.

Companies do not have to incorporate in India, but can operate as foreign companies: forms available include liaison offices, branch offices, and project offices. Of these the branch office is more likely to be of interest to manufacturers as a tax-efficient way of investing in India, but only for manufacturers intending to subcontract manufacturing operations to Indian partners. Foreign companies do not usually use India as a global headquarters as the likely tax treatment makes this disadvantageous.[1]

What does excessive bureaucracy actually consist of? According to companies there are at least four issues of concern. Firstly, the cost of entering and exiting businesses in India is high. Compliance with health, safety and environmental standards is costly, due to excessive inspections and documentation requirements, and there is a great deal of inter-state bureaucracy of questionable utility (for example, of the 'entry forms' that some states require whenever goods are moved across state borders, Mohandes Menon of logistics specialist Exel asks, 'what are these entry forms for? Nobody knows. There is no real logic to this practice being followed for several years which brings so much hardship to the industry.')

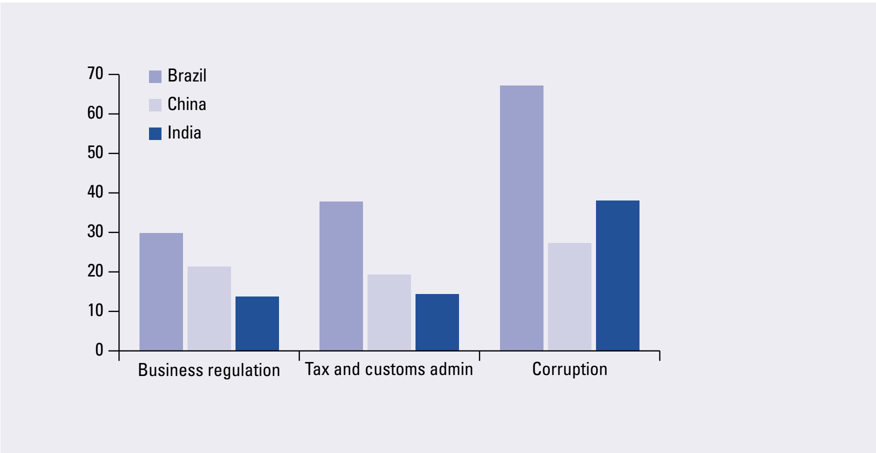
Source: (1) EIU *Country Commerce India*

Nevertheless, India is far from being the most regulated of emerging economies. In terms of companies' perception of the burden, India scores better than either China or Brazil on business regulation, better than either on the burden of tax and customs administration, and better than Brazil on the perceived level of corruption.[1]

And some companies point out that while the Indian bureaucratic burden can be heavy, it also has its strengths. "I think Indian bureaucrats often get a bad press, and the bad becomes the benchmark," says K. Rajagopal of ABB. "A lot of the bureaucrats I meet are well intentioned, well informed and capable too." Mr H. Gelis, executive director of Siemens, agrees: "The Indian bureaucracy overall is knowledgeable and informed," he says.

Cost of doing business: India, China, and Brazil

Percent of respondents identifying business regulation, tax and customs, and corruption as impediments to growth



Source: World Bank Investment Climate and Manufacturing Industry, November 2004

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

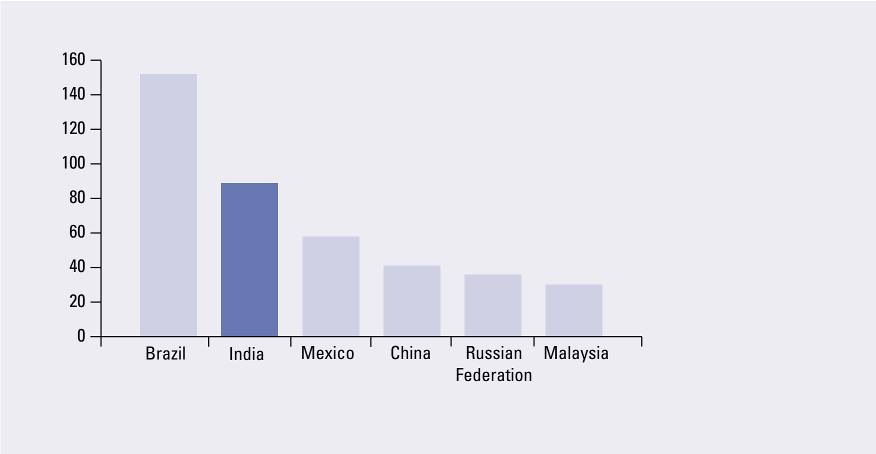
The procedures for entering and exiting businesses remain slow by the standards of competitor economies. Administrative approval of new businesses takes an average of over 89 days, more than double the time taken in China.[1] Closing businesses takes even longer: the average time to complete bankruptcy proceedings in India is 10 years.[2] Some companies do not consider this a significant barrier, however. "You can debate about how long it takes to set up a business," says Khuldip Khushoo of Honeywell, adding, "But how important is that? Once you have got past those hurdles it is really relatively easy to operate in India."

Businesses also face a considerable administrative burden during operations, through inspections from health, safety, and environmental officials. The rules governing operations are contained in a number of overlapping pieces of legislation (including the Factories Act of 1948, the Water Act of 1974, the Air Act of 1981, and the Environmental Protection Act of 1986). However, the weight of the administrative burden depends largely on the individual state where the business is located. Evidence from the World Bank suggests that the compliance burden is falling.[1] The average number of inspections fell to 7.4 a year in 2003, compared to 11.7 in 2000. But the burden may be much lower in regions with business-friendly administrations: the average number of inspections in the Mumbai metro area, for example, ran at 4.4 a year in 2003, more than 20 percent down on 2000. The number of days it took goods to clear customs showed similar improvements.

Companies also complain of the 'hidden' regulatory burden of the time it takes to secure a wide range of approvals. One diversified manufacturer reports that after many years of operation in India, the company has only just secured a 'general services agreement' allowing the Indian subsidiary to reimburse European and U.S. R&D centers for intangible services. The company says, "We got the agreement last year, but that literally took decades – just about anywhere else it would have been considered routine. And if you ask would investment in India have been higher in the past with such an agreement, the answer is yes it would."

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004
(2) Economists survey, *India,* 2004

Time taken for business start-ups – average number of days



Source: World Bank Investment Climate and Manufacturing Industry, November 2004

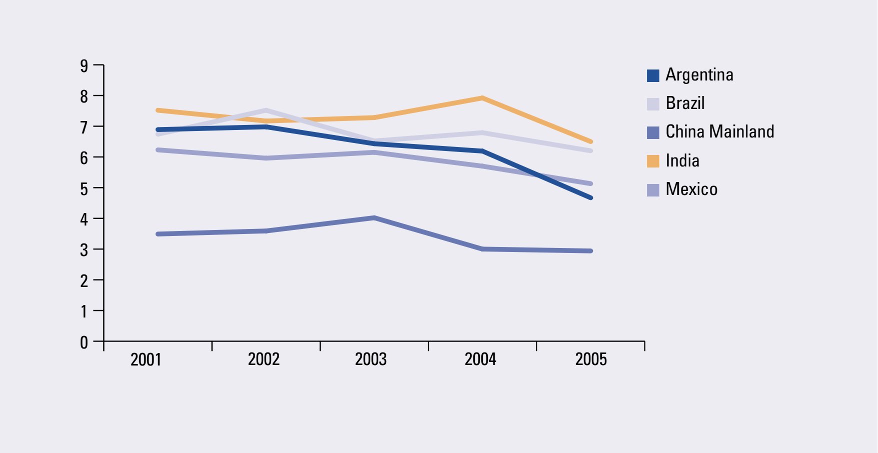
Companies are largely in agreement that one of the most significant regulatory burdens in India is labor regulation, which provides a disincentive to grow businesses, reduces flexibility in operations, and increases exit costs. Under the Industrial Disputes Act of 1947 businesses with over 100 workers have to secure the permission of state governments to close businesses or lay off workers. The Industrial Employment Act of 1946 and the Contract Labor (Abolition and Regulation) Act of 1970 make it difficult to redeploy workers in reorganizations without unanimous agreement of workers.

Some companies say that labor legislation remains a significant drag on business. "If we want to close down a factory, if any employees don't want to take the severance package then we have to go on employing them – we may have no economic work for them, but we have to go on paying them," says one diversified foreign manufacturer in India. Other companies point out that location tends to determine the quality of labor relations, and the way that courts interpret labor law. "Fifteen years ago there were endless strikes and lockouts, but you just don't hear about that any more," says Kuldip Khushoo of Honeywell, which has plants in Pune in Maharashtra state. He adds, "Labor has realized that jobs can be lost. The reality today is that you can lay people off. Legislation is just not enforced in the restrictive way it used to be."

The labor pool is exceptionally rich, with nine million new entrants a year, and with a wider range of top-level technical skills than in any comparable market. It takes on average fewer days to fill skilled job vacancies in India than in either China or Brazil.(1)

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

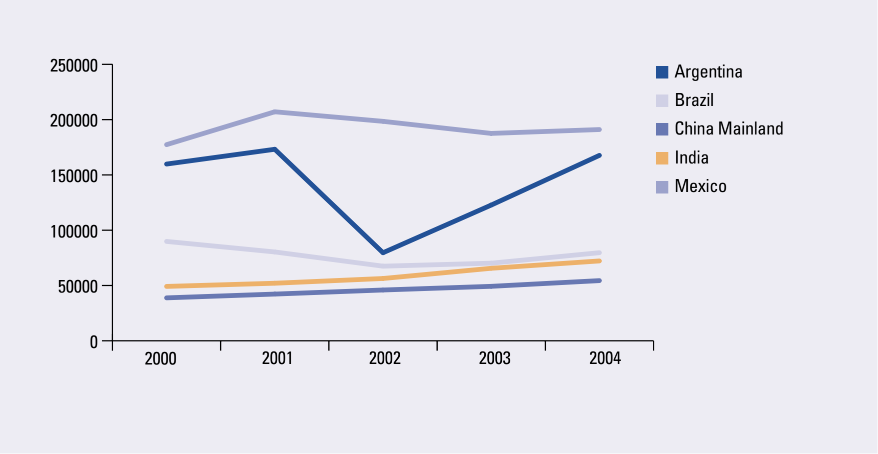
Competency levels of senior managers



Source: *World Competitiveness Yearbook*, published by IMD International, a Swiss business school, 2005

Remuneration costs are also at the low end of the emerging economy scale. India is marginally more costly than China for most senior managers, such as directors of HR and manufacturing, and CFOs. But costs are significantly less than in other emerging economies, such as Brazil and Mexico. "Top level skills are still cheap compared to their equivalents in Europe – and that includes managers with real international experience," says Suhas Kadlaskar of DaimlerChrysler. Kuldip Khushoo of Honeywell agrees, saying, "I have recently been involved in setting up high tech production lines in India, and it is really quite cheap to get engineers in India, and they are good engineers – they still cost maybe a half or a third of what they would in Europe."

Remuneration of management / directors in manufacturing

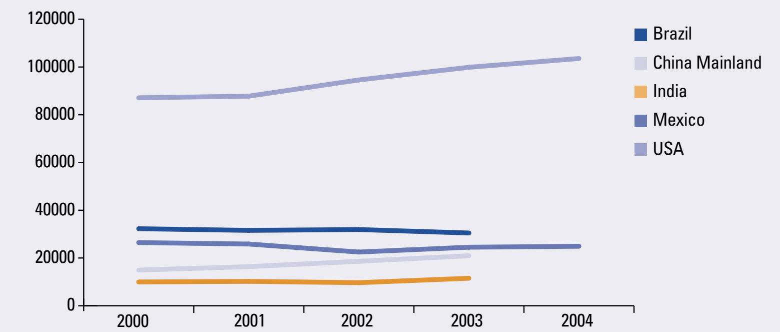


Source: *World Competitiveness Yearbook*, published by IMD International, a Swiss business school, 2005

Downsizing strategies that include large-scale job cuts are difficult but achievable in India, especially if local governments are supportive. For example, at the end of the 1990s Tata Motors (formerly Telco) reacted to the failure of its early attempts to develop a small passenger car by severely rationalizing the supplier base and cutting jobs by 40 percent.[1] World Bank data suggests that it is becoming easier to achieve such reorganizations: the reported overstaffing rate in Indian firms decreased from 10.9 percent to 6.8 percent between 2000 and 2003.[2]

According to government figures total manufacturing employment declined very slightly in the 10 years to 2002: combined with fairly healthy growth in the sector over that period, this suggests companies are achieving good productivity improvements in manufacturing. Data from the IMD global competitiveness rankings, database confirm that at a national level Indian competitiveness is lower than its main emerging market competitors.[3] The figures reflect the fact that due to labor regulation, 'Most large manufacturing companies are still seriously overstaffed since the system of "hire and fire" just cannot be followed in India, according to Mohandas Menon of Exel.

Productivity in industry (PPP)

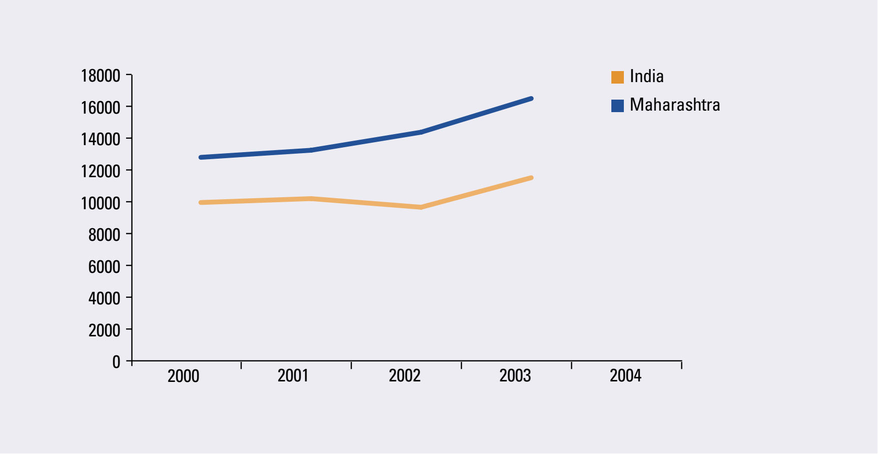


Source: *World Competitiveness Yearbook*, published by IMD International, a Swiss business school, 2005

However, Indian national statistics are a poor guide for inward investors in manufacturing. This is because labor conditions, including attendance, labor flexibility, and days lost through disputes vary hugely from state to state and even more from city to city. The chart overleaf shows that Indian productivity in a 'high FDI' state such as Maharashtra is much closer to competitor levels.

Source: (1) The Economist, Today India tomorrow the world, 31 March 2005
(2) World Bank Investment Climate and Manufacturing Industry, November 2004
(3) *World Competitiveness Yearbook*, published by IMD International, a Swiss business school, 2005

Productivity in industry (PPP)



Source: *World Competitiveness Yearbook*, published by IMD International, a Swiss business school, 2005

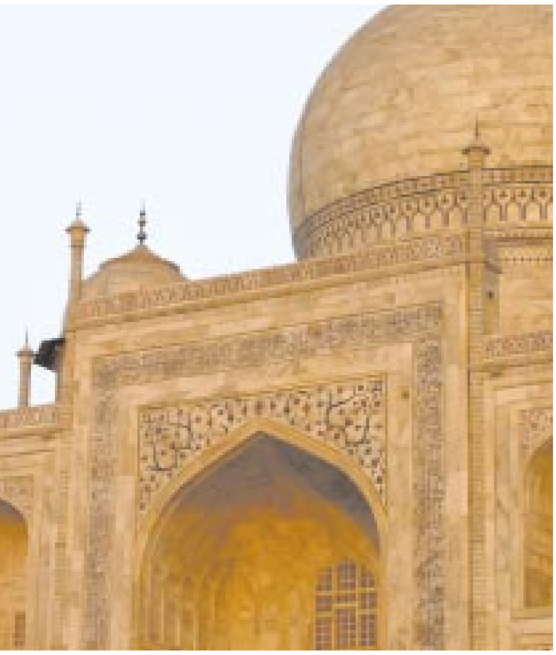
The World Bank confirms that labor productivity and total factor productivity are much higher in the six states that have in the past attracted many of India's foreign direct investment, and the Bank calculates that if India could resolve its power generation problems, labor productivity in manufacturing could improve by a further 80 percent. Nevertheless, India compares well with emerging economy competitors on overall labor regulation: companies consider the regulatory burden lower than in either China or Brazil, and Chinese businesses also report a higher level of overstaffing.[1]

On hiring and firing, the relative performance of India is more mixed. Companies report an exceptionally high level of rigidity in the firing rules – only Mexico is considered as restrictive. Hiring is reported to be easier in terms of regulatory challenge than either Mexico or Brazil, although China scores better on both counts.

If labor disputes do reach the courts, many companies have a well-founded expectation of impartial justice. What they cannot expect is dispatch: the slowness of the legal system is legendary, and throughout the judicial system there is estimated to be a backlog of 26 million cases. However, the relative sophistication of the legal code is an advantage: intellectual property protection, for example, is considered by many companies to be excellent. "The legal system is as good as anywhere, says K. Rajagopal of ABB, adding, "We have always been able to protect our intellectual property, and brands can be secured too."

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

Part Three: Location and Market



In recent years almost all foreign direct investment in India went to a small privileged group of states and territories: according to the World Bank's *Investment Climate Report 2004*, over 80 percent of FDI in 2000-2003 went to Delhi, Maharashtra, Karnataka, Tamil Nadu, Chandigarh, Gujarat, and Andhra Pradesh.

Per capita wealth is one factor in this disparity, but by no means the only factor. For instance, Haryana, Punjab, and West Bengal are all in the top five states by per capita income, but have in the past attracted relatively little manufacturing investment.[(a)(1)(2)] Companies say that state government attitudes, the reliability of power and water supplies, relative crime rates, and quality of life issues, including climate, are just as important as wealth levels when it comes to location decisions. "The fact is that southern India is much safer and more predictable, and that's important for companies," says one Indian analyst.

But investment patterns are changing, say companies. "Other states are catching up," says Kuldip Khushoo of Honeywell. "To the list of preferred states I think you can now add Pondicherry, Goa, and perhaps Arunachal Pradesh. Even in a communist state like West Bengal they are beginning to attract industry, because the government there is no longer on the side of the militants." Mr H. Gelis of Siemens says his company would also include Haryana state in the list of preferred locations. And several other companies remark on the resurgence of West Bengal as an investment location, despite a history of labor militancy: "Economic logic is now one of the most important issues when it comes to location decisions," notes one company. There remain 'problem states', despite official efforts to attract companies with tax and capital incentives. "If you think of state in North East areas, there is virtually no tax for a lot of manufacturing operations there,' says Suhas Kadlaskar of DaimlerChrysler India. 'But the problem is that tax incentives aren't really only deciding issues for companies like ours. The fact is you can't find the international managerial talent in those states, there are logistical and infrastructural issues, and these all outweigh tax incentives."

Note: (a) http://www.gujaratindustry.gov.in
http://www.midcindia.org/
http://www.citcochandigarh.com/about_citco/about_citco.htm
http://www.tidco.com

Source: (1) Economists survey, *India*, 2004
(2) World Bank Investment Climate and Manufacturing Industry, November 2004

Domestic markets remain untapped

The consumer market is remarkably undeveloped. Consumer goods penetration is very low compared to other emerging economies, and consumer markets have the potential to grow rapidly in the coming decade. "We expect a lot of growth because of the young demographic in India," says K. Rajagopal of ABB. "This will create an enormous consumption surge. We think demand will grow between 6-8 percent in the next decade – it will certainly be very different to the last 25 years, that's for sure."

India remains a relatively poor country in terms of the proportions of the population in poverty. According to the Asian Development Bank, around 35 percent of Indians are living on less than U.S.$1 dollar a day. That compares to just over 16 percent of Chinese, less than 7 percent of Sri Lankans, and less than 2 percent of Thais.[1] India is still a country of massive wealth disparities, and faces the challenge of not only increasing its economic growth rate but of distributing the economic benefits more widely.

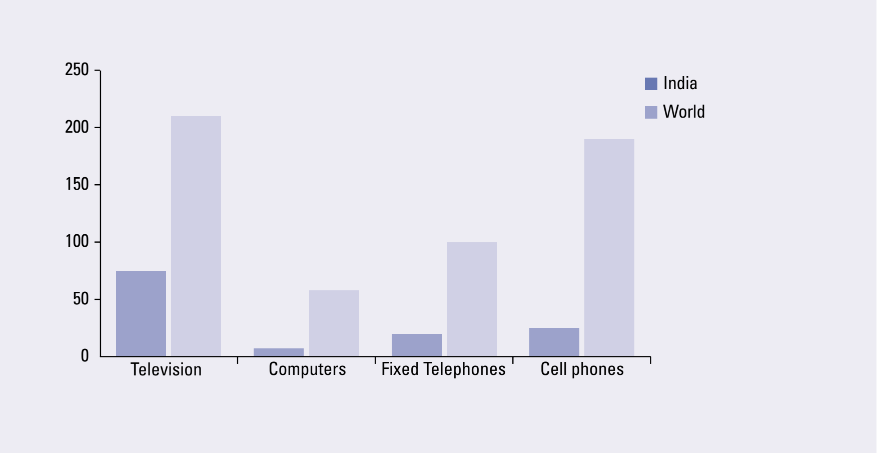
Classes	*1994-95*	*1999-00*	*2005-06*
Rich (Above Rs.215,000)	**1 Million** households	**3 Million** households	**6 Million** households
Consuming (Rs.45,000-215,000)	**29 Million** households	**66 Million** households	**75 Million** households
Climbers (Rs.22,000-45,000)	**48 Million** households	**66 Million** households	**78 Million** households
Aspirants (Rs.16,000-22,000)	**48 Million** households	**32 Million** households	**33 Million** households
Destitutes (Less than Rs.16,000)	**32 Million** households	**24 Million** households	**17 Million** households

Source: The Marketing Whitebook 2003-04 by BusinessWorld

Source: (1) Asian Development Bank - *Key Indicators 2004: Poverty in Asia: Measurement, Estimates, and Prospects*

According to Asian Demographics, a company that profiles household spending throughout Asia, India still has a relatively narrow middle class, reflecting a lower proportion of urban households compared to Asian competitors: it is estimated that around 70 percent of Indians live in the countryside, compared to around 60 percent in China. But even against this background, personal consumption on discretionary items is low. If the challenge for government is to spread the benefits of growth wider, the challenge for companies is to develop brand and marketing strategies in a remarkably diverse market.

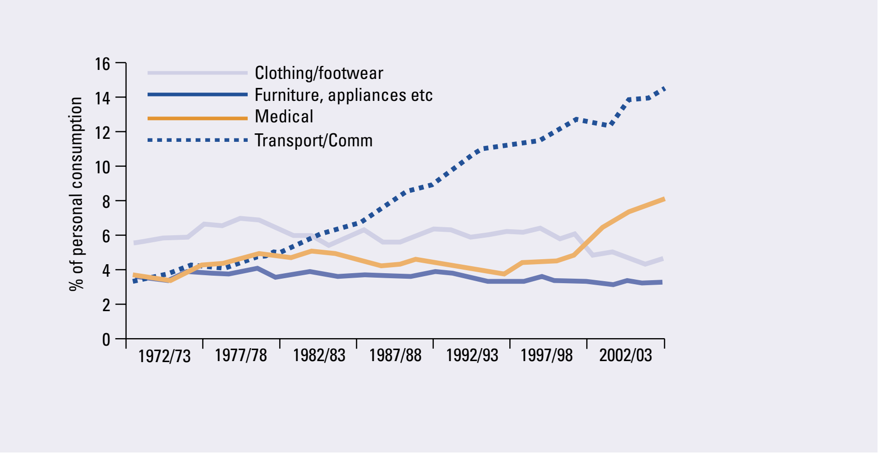
Penetration per 1,000 inhabitants



Source: KPMG Analysis 2003

Indian consumers do not follow the consumption patterns seen in other Asian countries. As Indians have grown richer, they have begun to spend more on vehicles, phones, and restaurants, according to recent research on consumption patters by Deutsche Bank.[1] Indians' discretionary spending is focused outside the home; unlike other Asian consumers, they have tended not to greatly increase their spending on clothes, personal care, and household goods.

Changing consumption pattern



Source: Carnegie Mellon Electricity Industry Center (CEIC), Deutsche Bank 2003

Source: (1) *India's Changing Households* - Deutsche Bank Nov 2004

India is also unusual in its patterns of urbanization. The population of cities has been rising absolutely and relative to rural population but at a rather slow rate, unlike other Asian economies. By 2001 28 percent of Indians were living in towns, compared to 39 percent of Chinese and 83 percent of South Koreans. Some smaller Indian towns are actually shrinking, as Indians congregate increasingly in larger towns, which now account for more than three-quarters of the urban population.[1]

The World Bank says that the six states and territories that have attracted most foreign direct investment were also rated as having the best investment climates on a broad range of measures. Investment is clearly flowing to locations that yield the best return, irrespective of government attempts to lure investors into some less attractive states.[2]

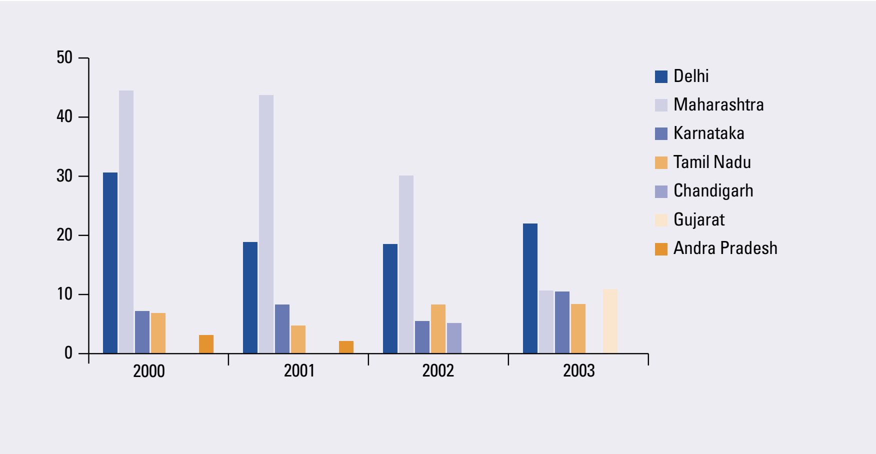
"The business environment varies hugely state by state," says one diversified manufacturer. "Some states are liberal, and the courts interpret legislation liberally. In others there is still a highly socialist culture, and the courts are correspondingly severe."

But the World Bank's historical figures conceal a developing trend for companies to seek new investment locations, as congestion and cost make some traditional FDI states less attractive.[2] "Like a lot of manufacturers we have a facility in Bangalore [Maharashtra state]," says one foreign manufacturer, "But we and other companies are starting to say we are not really happy with the infrastructure in Bangalore, or the salaries. That's one reason why we recently chose Chennai [Tamil Nadu state] for a new investment. Companies are looking further afield, and making choices based on economics and sustainability."

Source: (1) *India's Changing Households* - Deutsche Bank Nov 2004
(2) World Bank Investment Climate and Manufacturing Industry, November 2004

Some companies caution against over-optimistic assessments of the changing labor climate. Pradipta Sen of Emerson India argues that while state governments may have distanced themselves from labor militancy, at a very local level state government may have little influence. "When you invest in a location, it is the local party leadership that counts, not the state government," he says. "If you are making a white-collar investment it is not so important. But if you are making a blue-collar investment then you really have to be aware that you need the local political organizations on board even more than you need the support of the state government."

The 'high FDI' states and territories 2000-2003



Source: World Bank Investment Climate and Manufacturing Industry, November 2004

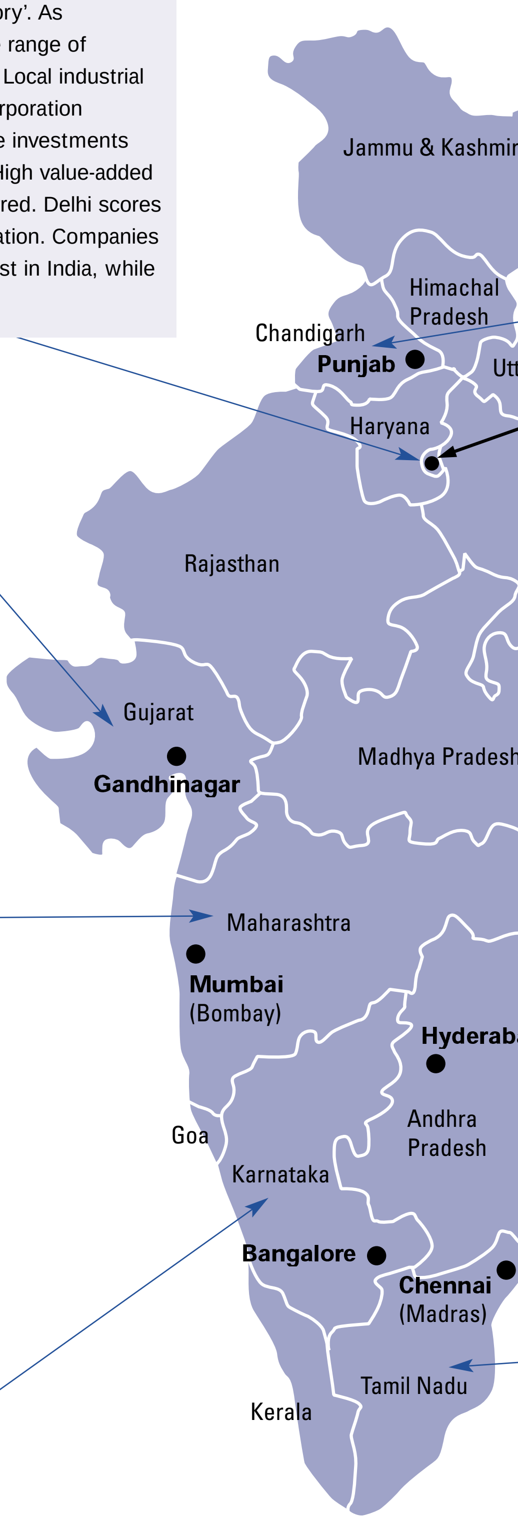
- **Delhi** not a state proper, but has unique status as the 'state capital territory'. As the political hub of India, Delhi attracts representative offices from a wide range of businesses, although many have their main production plants elsewhere. Local industrial policy is to develop that trend: the Delhi State Industrial Development Corporation (http://www.dsidc.org/index1.html) seeks to encourage more small – scale investments to the territory, and does not usually approve large – scale investments. High value-added small – scale manufacturing with a small environmental footprint is preferred. Delhi scores very highly on most ease of doing business measures except labor regulation. Companies report that corruption and infrastuctural constraints are amongst the lowest in India, while labor regulation is considered amongst the toughest.[1]

- **Gujarat** is a relatively wealthy state and a border with Pakistan. Gujarat scores well on corporate perceptions of labor regulation, fairly well on perceptions of infrastructure, but relatively poorly on perceptions of the level of corruption.[1] Policy is to encourage large-scale industry into the state, and capital subsidy incentives are somewhat higher than in other high FDI states.[2] Gujarat is seen by some corporations as an attractive base that is close to Mumbai, the capital of Maharashtra and commercial centre of India, but with significantly lower costs than Maharashtra. More information on current industrial policy at http://www.gujaratindustry.gov.in

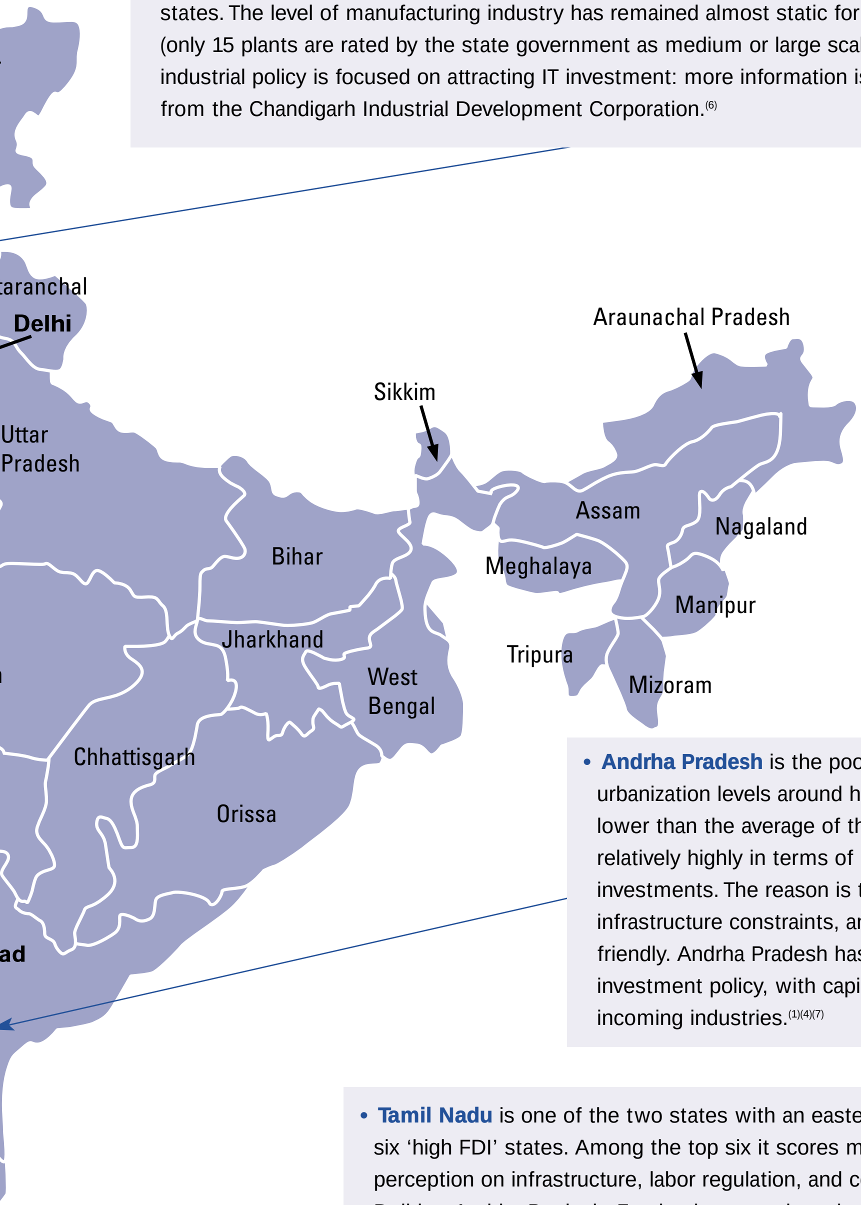
- **Maharashtra** has attracted the largest amount of foreign investment of any state in India since 1991, benefiting particularly from the historic status of its capital Mumbai as the country's commercial hub with a rich reserve of management, legal and technology services.[1] "Maharashtra is one of the best states in which to manufacture," comments DaimlerChrysler, adding, "From our point of view it is the best, followed by Karnataka and Andra Pradesh, followed by Delhi. There is a complete absence of industrial unrest in Maharashtra, and the large number of quality training institutes is also important."

  Maharashtra is easily the most industrialized state in India, and the most urbanized: corporate perceptions of labor regulation and infrastructural obstacles are fair; corruption is perceived as high. State policy is to develop technology industries in Mumbai – large-scale heavy manufacturing companies are often attracted to smaller cities such as Pune, where capital grants and tax incentives are higher, although Mumbai is India's biggest port city. Information on current industrial policy is available from the Maharashtra Industrial Development Corporation.[3]

- **Karnataka** State capital Bangalore is also capital of India's IT revolution, and the state is an important educational centre in India (with over 70 higher educational institutions devoted to technology Karnataka produces a large proportion of India's engineering graduates). However, infrastructure is under increasing strain in Karnataka's cities, especially Bangalore. The government-business Bangalore Agenda Task Force initiative was set up to address the city's infrastructure needs, although with diminishing returns since elections in May 2004 put a new chief minister in power with an agenda focused on rural issues. Karnataka recently introduced a 13.5 percent state 'entry tax' on imports to fund rural development, hitting technology-dependent businesses hard. Nevertheless, the concentration of talent and the attraction of culture and climate in Bangalore still draw new investors to the city.[4][5]



- **Chandigarh** is a geographically small 'capital territory' of less than a million inhabitants, serving as the capital city of three states in north-west India – Punjab, Haryana, and Himachal Pradesh. It owes its position in the list of 'high FDI' states to its attractiveness to service companies, especially financial institutions seeking to serve the north-western states. The level of manufacturing industry has remained almost static for the last 10 years (only 15 plants are rated by the state government as medium or large scale). Local industrial policy is focused on attracting IT investment: more information is available from the Chandigarh Industrial Development Corporation.[6]



- **Andrha Pradesh** is the poorest of the six 'high FDI' states, with lower literacy rates, urbanization levels around half the Indian average, and per capita incomes somewhat lower than the average of the top six states. Nevertheless Andrha Pradesh scores relatively highly in terms of investment attractiveness, attracting a wide range of industrial investments. The reason is that investors report that easier labor regulation, fewer infrastructure constraints, and lower levels of corruption make the state investment-friendly. Andrha Pradesh has also benefited from a structured and targeted investment policy, with capital subsidies and long-term indirect tax holidays for incoming industries.[1][4][7]

- **Tamil Nadu** is one of the two states with an eastern seaboard that score among the top six 'high FDI' states. Among the top six it scores moderately well in terms corporate perception on infrastructure, labor regulation, and corruption, although markedly less than Delhi or Andrha Pradesh. Foreign investors have located chemicals, textiles, and auto production in Tamil Nadu – Hyundai, Ford, for example, is now a significant auto exporter from its production plant in the capital city of Chennai, and Nokia recently announced plans to set up a new manufacturing plant in the state. State policy is to build on these investments, with 10 percent asset investment subsidies available for particular industries, including auto parts and pharmaceuticals. Current policy is available from the Tamil Nadu Industrial Development Corporation.[1][8]

Source:
(1) World Bank Investment Climate and Manufacturing Industry, November 2004
(2) http://www.gujaratindustry.gov.in
(3) http://www.midcindia.org/
(4) Economists survey, *India*, 2004
(5) The Economists survey, *The Tiger in Front* 5 March 2005
(6) http://www.citcochandigarh.com/about_citco/about_citco.htm
(7) TBC
(8) http://www.tidco.com

Key issues in the 'high FDI' states – percentage of companies rating these issues as obstacles to growth

Source: World Bank Investment Climate and Manufacturing Industry, November 2004

There is also evidence that choice of city is just as important as choice of state. Data from the World Bank rank cities according to their industrial cost base in terms of total labor costs, infrastructure-related costs, and real estate. Large cities with relatively low costs include Ahmedabad, Bangalore, Delhi, Hyderabad, and Kolkata. High-cost large cities include Indore, Kanpur, Pune, and Vadodara. The significance of these cost differentials is seen in relative productivity rates: low-cost cities deliver almost twice the value added per worker than high-cost cities, despite higher wage rates.[(1)] However, companies caution that generalizations about rival locations can be misleading: "In manufacturing everything really depends on the company, and its level of automation," says K. Rajagopal of ABB.

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

The infrastructure crisis eases

Weak infrastructure remains a significant cost factor for companies, although most infrastructure indicators are showing an improving trend.(1) Yet there is little doubt that infrastructure is top of the agenda for corporate planners. "It's the biggest challenge for industry," says Suhas Kadlaskar of DaimlerChrysler, who adds, "the problem is that politically the states are often in conflict with the federal government. That's why things don't get done."

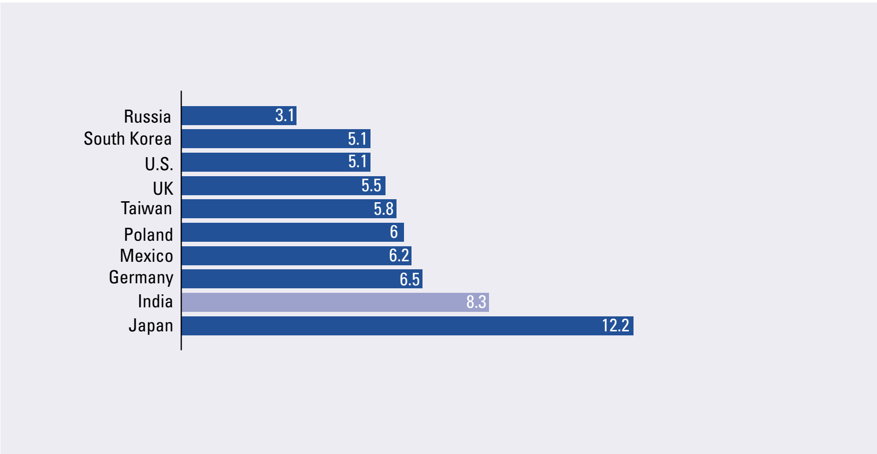
In particular imports are constrained by inadequate facilities at ports of entry and what in regional terms is a weak transport system – there are barely 2,000 miles of expressway throughout India, and distribution costs are correspondingly high.(2) Power supply is also a key issue: over 60 percent of companies rely on private power supplies (although the percentage is falling quite fast).(1) Data communications, however, are good, especially in technology hub cities; communications at the national level have been greatly enhanced by the development of a 53,000-mile nationwide fiber-optic network by telecommunications giant Reliance.(2) Nevertheless, India remains costly in-terms of cost per call. It takes longer in India to get connected to the fixed line network than in either China or Brazil; it takes twice as long to get connected to the national power grid than in either competitor; and the average inventory time for major industrial inputs (which reflects customs delays) is significantly higher (around 32 days for India, compared to around 24 in China and 20 in Brazil).(1)

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004
(2) Economists survey, *India,* 2004

But according to companies, the most significant direct infrastructure constraint for manufacturing is the unreliability of power supply. On average a company can expect nearly 17 significant power outages per month, against one per month in Malaysia and fewer than five in China. At the same time costs are higher: average tariffs for industrial use are around U.S.$0.08 per kWh in India, compared with U.S.$0.05 in South-East Asia. Indian charges vary state by state, being highest in some of the poorer rural states of the North-East, where industrial prices cross-subsidize households and farms.[1]

Even in traditional manufacturing states like Maharashtra, power availability is becoming problematic. "That's because we've had no new power generation come on-stream for the last three years," says Kuldip Khushoo of Honeywell. "We have started facing power outages, so we had to bring in our own diesel generator sets. In our case our business is not very power intensive, so it doesn't affect margins, but for some companies the cost is very significant" Siemens agrees, saying that in 2005 the company will for the first time have to begin relying on its own power generation in Maharashtra.

U.S. cents per kWh of power for industries



Source: Energy Prices and Taxes 1st Quarter 2005

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

Transport is another constraint for manufacturers. Companies say there are two primary sources of cost: delays in distribution and delays in ports. However, there are striking differences between states in commercial transportation. Companies in two of the six 'high FDI' states report a high level of transport bottlenecks, with 43 percent or more of businesses considering transport to be an obstacle to growth in Karnataka and Tamil Nadu. Responses are much more positive in the other four states: less than 3.5 percent of businesses in Maharashtra, Gujarat, Andra Pradesh and Delhi consider transport to be an obstacle. All six of the 'high FDI' states experience around the Indian average in customs delays in ports, from an average of 7.1 days in Karnataka to 9.6 days in Delhi. Commercial freight transport is moving consistently away from rail and onto the roads. India's rail transport system is deteriorating, and the proportions of many categories of goods transport by rail have halved over the last fifteen years. "We have never depended on rail," says Mohandes Menon of Exel, "The problem is not cost, the problem is the unpredictability of the rail network." "Roads are getting more and more important in India," confirms Indranil Chowdhury, CFO of Volvo India, who adds, "The current level of road investment is good, and it will greatly improve our logistics."[1]

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

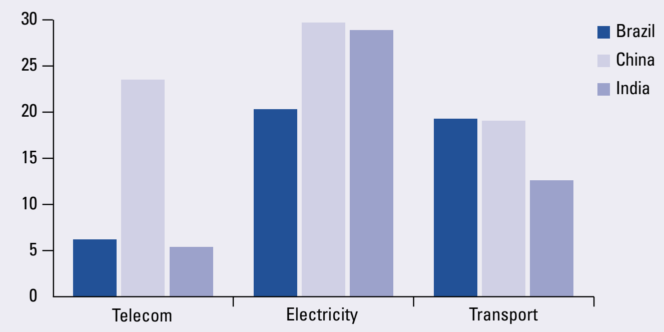
Transport delays increase the cost of distribution, although companies believe that other factors contribute to distribution difficulties. "The issues around domestic distribution by road in India are a mixture of poor road infrastructure, complex tax structure and lack of large fleet owners and the unavoidable dependence on the broker community for truck placement", says Mohandas Menon of Exel, who argues that India needs transport companies with larger fleets of trucks to make distribution effective and controllable. But he believes that the biggest obstacle to efficient distribution is India's complex indirect tax system coupled with the routine bureaucracy that adds to the hardships of moving goods across state borders. Indranil Chowdhury of Volvo agrees, saying, "At the moment the concept of the regional distribution hub does not exist – instead there are a lot of small warehouses in every state." The effect is that manufacturing investment remains fragmentary, says Pradipta Sen of Emerson India. "If you have an investment that needs national distribution it may be better to manufacture in more than one location. But that does lead to added costs – it means you don't get the economies of scale at the beginning, and it adds to management cost."

"The complicated indirect tax system prevailing in India makes JIT supplies to manufacturing plants difficult", says Mohandas Menon of Exel.

Politics as much as money, according to the companies we interviewed is often at the root of the infrastructural deficit. A large transport project, for example, might fail to get any further than the drawing board while the state government and federal government are in opposition. But once state government and federal government have leading parties in common, the project may progress very fast. And despite the high costs of telecommunications, power, and transport, it is notable that according to companies India does not compare badly with either China or Brazil on these measures.[1]

Source: (1) World Bank Investment Climate and Manufacturing Industry, November 2004

Infrastructure as an obstacle to growth



Source: World Bank Investment Climate and Manufacturing Industry, November 2004

The scope for improving India's infrastructure is limited by the poor state of public finances. The combined deficit of the federal and state governments is running at around 10 percent of GDP, a fact that severely limits spending on long-term infrastructural improvement.[1] However, federal and state governments are showing increasing interest in the potential of private-public partnerships in large transport, power, and water projects, cutting the amount of capital that federal and state governments have to commit to improving the infrastructure, and opening new investment opportunities for foreign contractors. The construction of Bangalore's new international airport, currently under way, was made possible by just such a mix of public and private finance. Other projects that are likely to benefit from such an approach include the 'Golden Quadrilateral' project of highways linking Delhi, Kolkata, Chennai, and Mumbai, which is due for completion in 2007, and a U.S.$120 billion water management scheme that is intended to link major rivers and manage India's crippling pattern of flood and drought.

Many companies point out that infrastructure difficulties remain critical, yet at the same time they see a rapid pace of improvement. "For example, Say ten years back, I never thought that I would see in my lifetime an electronic interface with the customs the department,' says Mohandas Menon of Exel. 'But today I can at least file the clearance documents electronically and interactively with the customs. This is real improvement'.

Source: (1) Economists survey, *India,* 2004

India's auto sector

India's automotive industry is in some ways typical of the country's industrial development. Automaking has a long history in the country, longer than in many emerging economy competitors – General Motors began assembling Chevrolets in India in 1928. Industrial development has been stunted by a host of factors: low growth in spending power, lack of encouragement for foreign investors, and high indirect taxes have all played a part. Most foreign automakers consider that it is in the past: the turning point was the government's decision in 2002 to lift all equity caps for foreign investors in the sector. Other barriers to foreign manufacturers have also fallen. "There are hardly any important non-tax barriers now," says Suhas Kadlaskar of DaimlerChrysler. "Product certification for example is no longer much of a problem"

India is now the world's fastest-growing large market for passenger cars, albeit from a low base.[1] Disposable income is rising fast and, according to research on consumption patterns by Deutsche Bank, Indian consumers are more strongly predisposed than other Asian consumers to commit rising incomes to buying vehicles.[2] India currently has one of the world's lowest per capita passenger car ownership rates, with less than six cars per 1,000 people in 2004. The next 10 years are likely to see the market grow dramatically as consumers upgrade rapidly from motorcycles and three-wheel vehicles: light vehicle sales passed the one million mark in 2004.

Source: (1) EIU *Country Commerce India*
(2) India's Changing Households - Deutsche Bank Nov 2004

Foreign manufacturers began taking India seriously in the 1990s, and many now operate as wholly owned subsidiaries, although many are stated as joint ventures – for example, the biggest manufacturer of passenger cars by market share, Maruti Udyog, is now wholly controlled by former JV partner Suzuki of Japan. Maruti, with around 51 percent of the market, is followed by South Korea's Hyundai (18 percent) and India's Tata (16 percent). The remaining seven companies in the top ten by market share each have less than 3 percent of the market; only one, Hindustan Motors, is Indian (the others are Ford, Honda, Fiat, GM's Opel, Toyota, and Skoda). However, in commercial vehicles Indian companies dominate: Toyota is the only foreign manufacturer that has a significant market share in light commercial vehicles, while the truck market is overwhelmingly dominated by India's Tata.(1)

There are around 400 auto component manufacturers of size, and a large proportion of them (some 40 percent) are joint ventures with foreign manufacturers. (Bosch, Ford, General Motors and a large range of Japanese manufacturers have joint venture presences in India.)(1) Indranil Chouwdhury of Volvo believes that the component supplier network is now well developed. "Whether you use it depends on your volume," he says. "We import a lot of components, because it is expensive to develop local partners for a low volume of components. But the availability is there. The technology is there. It's just a question of volume."

Auto components are increasingly exported from India by manufacturers, says DaimlerChrysler. The company says, "We don't export cars, but we do export components back to Europe, and we have about a 15 percent cost advantage over European sourced components."

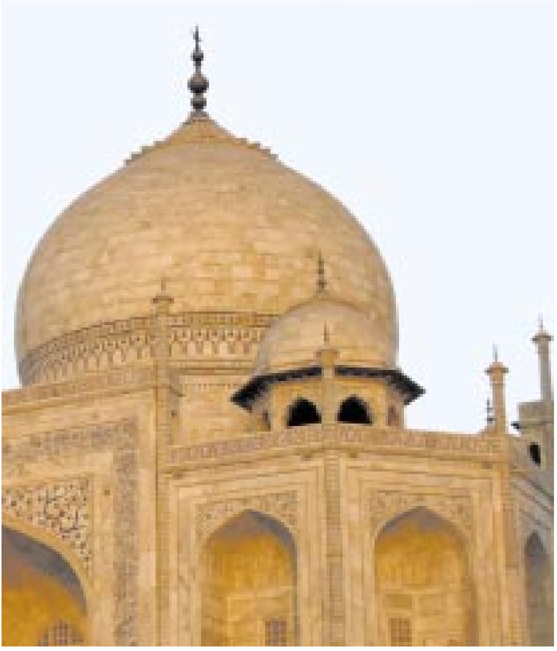
Source: (1) EIU *Country Commerce India*

The market overall is increasingly competitive. The biggest maker of passenger cars, Maruti, has seen its share eroded quite sharply in recent years by newer entrants.[1] Indian competitors are offering a strong challenge to foreign manufacturers: Tata, for example, is developing a small car to be priced at Rs100,000, less than half the cost of the lowest-priced passenger car now on the market. The auto sector is already one of the most significant attractors of FDI in India, and competition is making it one of the most fiercely contested markets.[2]

Says Indranil Chowdhury of Volvo: "The auto industry in India has really matured. We are very upbeat about India, because we have been growing fast and we think we will go on growing fast."

Source: (1) EIU *Country Commerce India*
(2) Economist Today India tomorrow the world, 31 March 2005

Conclusion



Over the last 15 years India has changed much faster than many predicted. The door to foreign investment is now open, and the ambition to make investments work is tangible. The task of building an efficient economy remains an enormous one, but companies agree that, whatever the faults in execution, India's policymakers are moving in the right direction.

"There is no problem with industrial policy," says Khuldip Khushoo of Honeywell. "Look at what the latest policy documents say – they say we will dismantle the regulatory system, we will bring in technology, we will upgrade Indian industry. The policy is really very business-friendly. The question is, does that policy filter down to the grass roots? Frankly, on that score it could be better."

Companies tell us that they face myriad operational problems in India, particularly through restrictive labor regulation, excessive bureaucracy, and a complex web of indirect taxes that make it much harder than it need be to serve the domestic market. But these issues have one thing in common: they are improving fast.

It is in the area of infrastructure that some companies doubt that rapid improvement will be made. "There is improvement, but the pace of improvement needs to match the rate of growth in the economy," says Suhas Kadlaskar of Daimler Chrysler. Another company with diversified manufacturing investments in consumer and industrial products across India adds that this is the issue that discourages head offices from committing to India. "Unless infrastructure is improved significantly people are always going to be hesitant about major investments – particularly where the business depends on efficient movement of goods," the company says.

Pradipta Sen of Emerson India agrees. "I see senior executives coming to India and they can see that the economy is growing, there is a lot of talent, a lot of entrepreneurship," he says. "But then they travel. They see the traffic, the state of the roads. They experience a power cut. Finally they fight their way back to the airport. And they go away ready to invest somewhere else where the infrastructure is in place, even if that somewhere else doesn't have India's advantages."

In practice many companies have developed effective 'workarounds' to deal with India's infrastructural challenge. "It's true, all ports are congested in India" says Indranil Chowdhury of Volvo. "But we find that if you have the right clearing agents, you can ship cargo." But decision-makers outside India are often critically discouraged by the infrastructural deficit. Says one manufacturer headquartered in Europe: "In many ways the problem is one of convincing people within the company of the attraction of India. They know we have good people in India, and access to talent. But they say why should we invest when the infrastructure is clearly so poor? They don't necessarily understand the potential."

Yet as awareness of India's potential grows, so should the understanding of the business case for manufacturing investment in India. Some companies point out that actual returns from Indian investment compare very favorably with returns from emerging economies where the environment may not appear quite so challenging.

"What has the invested dollar returned to us in India, compared to say China?" asks Pradipta Sen of Emerson India. "We have been in India for 25 years, and 17 years in China. Every dollar we have put into India has earned a very good return. Every dollar invested in China promises a terrific return, but it is still only a promise. Investing in India is justified in terms of a solid historical business case."

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