

**AUGUST 2006****A N A L Y S I S**

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## ROARING TIGER OR LUMBERING ELEPHANT?

**ASSESSING THE PERFORMANCE, PROSPECTS AND  
PROBLEMS OF INDIA'S DEVELOPMENT MODEL.<sup>1</sup>**

*In the past, there has been plenty of scepticism about India's economic prospects: for many, Charles De Gaulle's aphorism regarding Brazil, that it was a country with enormous potential, and always would be, seemed to apply equally well to the South Asian economy. While the 'tiger' economies of East Asia were enjoying economic take-off on the back of investment- and export-led growth, the lumbering Indian elephant seemed set to be a perpetual also-ran in the growth stakes. Yet following a series of reform efforts, first tentatively in the 1980s, and then with much more conviction in the 1990s, the Indian economic model has been transformed, and so too India's growth prospects. High profile successes in the new economy sectors of information technology (IT) and business process outsourcing (BPO), along with faster economic growth, triggered a widespread rethink regarding India's economic prospects, and a wave of foreign portfolio investment flowed into Indian markets. Perhaps India was set to be a tiger after all.*

*Yet this new-found optimism received a setback in May and June of this year, when there were sharp falls in Indian stock markets. Had the optimism been overdone, and was another re-rating of India's economic prospects on the cards? Perhaps India was only a lumbering elephant after all?*

*This paper takes a closer look at the new Indian development model. It concludes that the idiosyncratic nature of India's development process – together with the constraints imposed by India's politics – means that we are not seeing a simple re-run of the East Asian tiger story. Still, although elephants are more ponderous than tigers, they are impressive beasts. The size, power and momentum of the Indian elephant should not be underestimated.*

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- promote discussion of Australia's role in the world by providing an accessible and high quality forum for discussion of Australian international relations through debates, seminars, lectures, dialogues and conferences.

Lowy Institute Analysis are short papers analysing recent international trends and events and their policy implications.

The views expressed in this paper are the author's own and not those of the Lowy Institute for International Policy.

#### **Footnote**

<sup>1</sup> This *Analysis* draws on a keynote address (*The rise and rise of India*) to the India Conference 2006: Connecting Australia and India Business, at the Hilton Hotel, Melbourne on 8 June 2006 and a speech to the Australian Business Economists (*The Indian growth model*) at the Swissotel, Sydney on 14 June 2006.

ROARING TIGER OR LUMBERING ELEPHANT?

I. WHY LOOK AT INDIA?

Why pay attention to India? A key objective of the Lowy Institute’s international economy program is to identify and analyse those trends we think are likely to fundamentally reshape the international economic environment in which Australian businesses and policymakers operate. One early judgment was that the economic (re-)emergence of India into the world economy is one such trend, and we made this the subject of the first publication in the Lowy Institute Papers series.<sup>1</sup> *India: the next economic giant* was completed around the time of the May 2004 Indian elections and published later the same year. The objective in writing that paper was to make the case that Australia should pay more attention to an Indian economy that was finally in the process of realising some of its enormous potential.

This paper takes a closer look at the new Indian development model. Part 1 discusses the case for focusing on India’s economic progress. Part 2 then takes a look at the new Indian model, highlighting both how it differs from the development path typically associated with economic take-off in emerging markets as well as how it has been influenced, for good and ill, by India’s previous development experience. Part 3 assesses its performance to date, with the focus on the delivery of economic growth. Part 4 discusses the prospects for sustaining, or even improving, upon that growth performance, and part 5 outlines some of the problems facing the new Indian development model. Part 6 concludes.

Growth and scale

One striking development in the two years since *India: the next economic giant* was completed has been the way that a fair amount of the earlier scepticism about India’s economic potential has dissipated, recent market gyrations notwithstanding. That the world has woken up to the *fact* of India’s ongoing economic transformation, and the consequent implications for its role on the global stage, can be seen by the procession of world leaders that have visited

India's share of world GDP and population

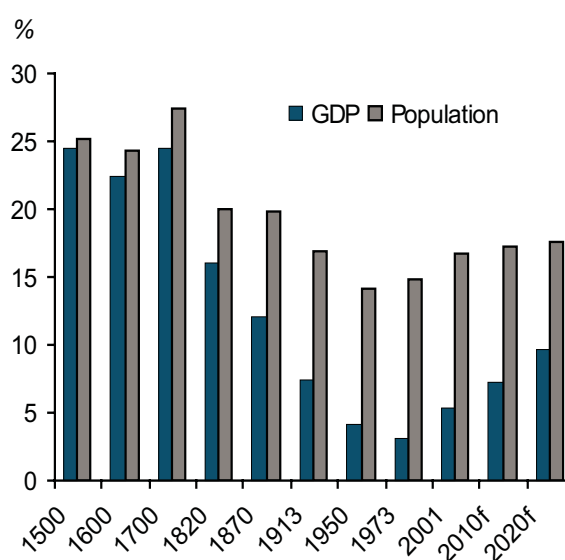


Figure 1

Sources: Maddison (2004) for historical data. Population forecasts from United Nations Population Division (2005), median variant. GDP forecasts simple linear projections based on past performance.

## ANALYSIS

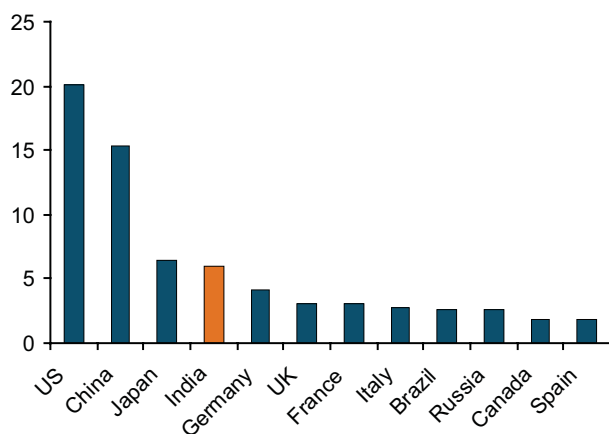
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New Delhi over the past year, including of course, Prime Minister John Howard. So one good reason to look at what is happening in India is the transformation in its economic prospects.

A second reason is the sheer scale involved: after all, this is one of the world's two billion-people-plus economies, home to almost one in five of the world's population.

**Top 12 economies by GDP, PPP**

% of world GDP

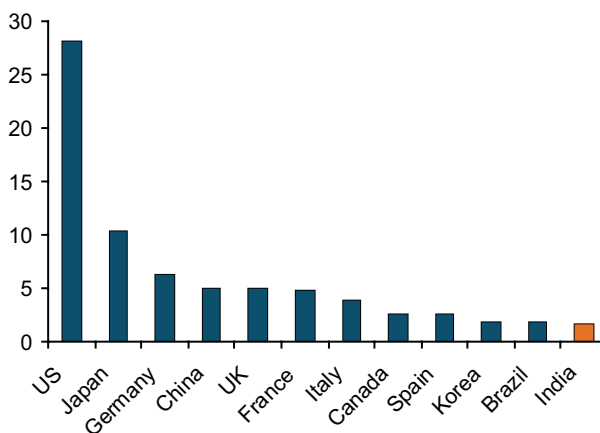


**Figure 2**

Source: International Monetary Fund (2006)

**Top 12 economies by GDP, US\$**

% of world GDP



**Figure 3**

Source: International Monetary Fund (2006)

The combination of these two factors – stronger economic performance (provided that it is sustained) and great size – looks set to give India a progressively greater role in the world economy. According to estimates constructed by Angus Maddison, India's share of world population and world output in the sixteenth, seventeenth and eighteenth centuries was around one quarter of the global total.<sup>2</sup> While the onset of modern economic growth in Europe and later North America saw that share of world output decline markedly, the present turnaround in growth prospects has seen several studies highlight the possibility of India's once more becoming one of the dominant players in the world economy (Figure 1).<sup>3</sup> In fact, on a PPP basis India is *already* the fourth largest economy in the world, accounting for about 6% of world output in 2005 (Figure 2).

However, if we measure world GDP using US\$ exchange rates, India comes in at 12th place, accounting for less than 2% of global output (Figure 3).<sup>4</sup>

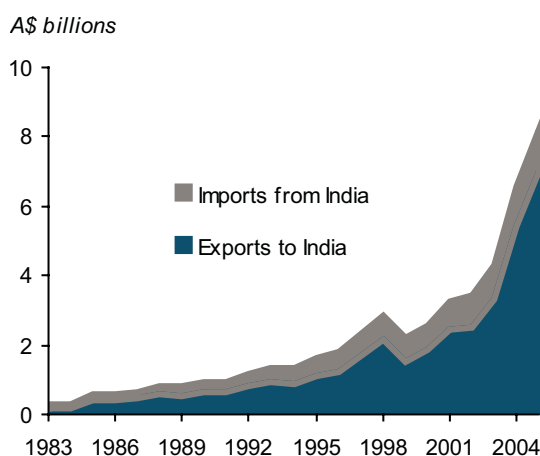
**ROARING TIGER OR LUMBERING ELEPHANT?**

**Australia's Indian interest**

These developments mean that Indian economic performance will be increasingly important in Australia's economic, and possibly geo-strategic, future. Indeed, there are some signs that this is already happening: by last year, total Australia-Indian bilateral merchandise trade was worth over A\$8 billion, making India Australia's twelfth largest trading partner (Figure 4).<sup>5</sup>

In 2005, India was Australia's sixth largest merchandise export market, ahead of the UK and Taiwan. True, exports remained concentrated in a relatively small number of commodities, with gold (about 43% of Australian exports to India by value), coal (32%), copper ores (8%) and wool (2%) accounting for most of the total. Even so, according to the Department of Foreign Affairs and Trade, India has been the fastest growing of Australia's major merchandise export markets over the past five years.

**Australia-India bilateral merchandise trade**



**Figure 4**

Source: Department of Foreign Affairs and Trade

**Understanding an idiosyncratic India**

Yet another reason to pay attention to India is the apparently idiosyncratic nature of its current development model, with its particularly high profile role for skill-intensive service sector exports. In fact, the Indian economic story casts light on several of the most interesting debates regarding economic development: Can a development path that emphasises services deliver the growth and employment required by a developing country? Are globalisation and openness to the international economy good for boosting growth and reducing poverty in a low-income economy? Is democracy compatible with development? What about a decentralised, federal system? The answers to these questions are important not only for India, but also for the future of the world economy.

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II. THE INDIAN DEVELOPMENT MODEL

Legacies of the ‘Licence Raj’

Not surprisingly, India’s current development model has been heavily influenced by past approaches to economic development.<sup>6</sup> Following Independence, India’s leadership drew its economic policy inspiration from a variety of sources. These inspirations included the failures of economic policy under British rule, the Fabian Socialism espoused by some influential voices in the former colonial power, the apparent success of Soviet central planning, and the expansion of state control of the Indian economy that had occurred during World War II. The result was a program of state-led industrialisation that combined public ownership of the commanding heights of the economy with a complex and pervasive system of controls, permits and regulations that came to be known as the ‘Licence Raj’. India’s post-Independence development planning was also marked by an intense (and ultimately self-fulfilling) pessimism regarding the opportunities offered by integration with the world economy. One important consequence of the latter was a steady decline in India’s share in world markets. Indeed, even today, after this process has gone into reverse, India’s share of world goods trade still remains below the level achieved in the 1950s and 1960s (Figure 5).



**Figure 5**  
Source: World Trade Organisation (2006)

What turned out to be a frequently dysfunctional growth model proved to be damaging for India’s economic performance in several ways. By contributing to the effective closing of the Indian economy, for example, it ruled out the kind of export-led growth enjoyed by East Asia. At the same time, the Licence Raj encouraged growth-sapping corruption and rent-seeking while simultaneously discouraging growth-promoting competition. The model also delivered growth rates – the so-called ‘Hindu rate of growth’ – that turned out to be much less impressive than those achieved by the more outward-oriented East Asian development model.<sup>7</sup>

Along with the legacies of a closed, bureaucratically stifled economy, the development model pursued during this period also had several other features that continue to shape current performance. Again, many of these have had unfortunate or perverse consequences. Thus, for example, a focus on

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promoting small and medium sized enterprises via a suite of policies that included reserving sectors of the economy for small scale production (Small Scale Industry (SSI) reservation) resulted in a loss of potential economies of scale. Similarly, labour market policies designed to protect employment instead encouraged Indian firms to secure production flexibility by substituting capital for labour. Yet other legacies are more ambiguous, even positive. India's push for autarky encouraged the development of a suite of skills, industries and capabilities more likely to be associated with much higher levels of income per capita. So, for example, the demands of self-sufficiency contributed to the creation of a capital goods industry and an emphasis on engineering skills, as well as a focus on high quality tertiary education that in turn created a large supply of highly qualified, and English-speaking, skilled labour. In this regard, a group of IMF economists have described India as benefitting from a kind of 'import substitution effort' in skilled human capital development.<sup>8</sup>

#### Changing course

By the 1970s, India's old development model had effectively run into the ground, apparently unable even to sustain the lacklustre Hindu rate of growth, let alone match the dynamic economies of East Asia. Clearly the old model was failing, but what would replace it, and when?

There is a continuing debate regarding precisely *when* India's switch to a new development model took place, and just what it entailed. Probably the most common view highlights India's balance of payments crisis of 1990/91 and the subsequent election of a new government led by Prime Minister P V Narasimha Rao. With economic policy in the extremely capable hands of Finance Minister Manmohan Singh and Commerce Minister P Chidambaram, India gradually began to dismantle both the Licence Raj and India's external barriers to the world economy.<sup>9</sup> While conceding that this period marks India's shift to a more market-based model, however, some other observers have pointed to the 1980s as marking an earlier break with the past, when Indian policymakers shifted to a more *pro-business*, as distinct from the later, *pro-market*, stance.<sup>10</sup>

#### Not the East Asian model

Importantly, when economic policy changed course, at first fairly tentatively with a modest *pro-business* shift in the 1980s, then with the more radical (at least in Indian terms) shift to *pro-market* policies in the 1990s, the response of the Indian economy was conditioned by the legacies of the previous development model. Partly as a result, the new Indian development model looks quite different from what we had come to expect from emerging markets in the light of the East Asian experience.<sup>11</sup>

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The ‘stylised facts’ that are typically called to mind by East Asia’s route to economic take-off (and by the earlier experiences of several developed economies) tend to conjure up something like the following. Economic take-off begins with the contraction of the agricultural sector’s share in national output and the parallel expansion of the industrial sector. Here, (low-skilled) labour-intensive industrial products are in the vanguard. Over time, countries move up the value chain to more skilled labour- and capital-intensive industrial products. Then, as income per capita rises and the industrial take-off starts to run out of steam, the next sectoral shift is to services. The export profile is also expected to follow this pattern, with primary product exports giving way first to low-end labour-intensive manufactures, and then to more capital- and skilled labour-intensive goods.

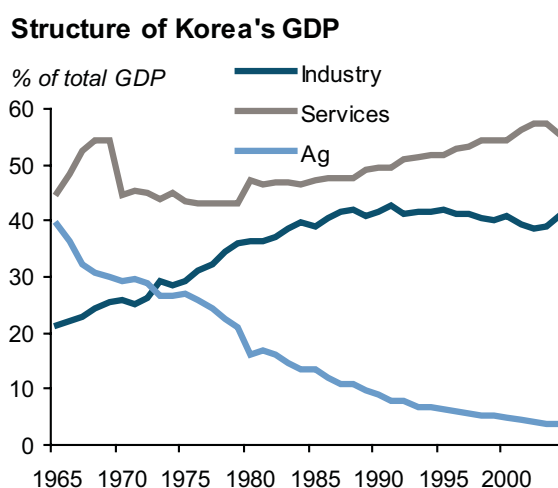
Figure 6 tracks the sectoral composition of South Korea’s GDP, which follows these stylised facts pretty well, as the decline in the agricultural sector’s share of GDP is matched first by an increase in the share of industry, and is later followed by an increase in the share of the services sector.<sup>12</sup>

In contrast, and as Figure 7 highlights, the Indian development model has followed a quite different trajectory from that predicted by both the stylised facts and the East Asian experience. Rather than a process of rapid industrialisation being unlocked by the economic reforms of the 1980s and 1990s, the services sector has taken the lead.<sup>13</sup> During the market-reform decade of the 1990s, for example, India’s service sector grew at an annual rate of 9% and contributed well over half of overall GDP growth.<sup>14</sup>

To some extent, this expansion of the Indian services sector seems to have reflected a catch-up process, reflecting the relatively stunted nature of the sector before the onset of reform. The share of services in Indian GDP in 1980 was *below* that which might be expected given the size and wealth of the economy.<sup>15</sup> In contrast, and as Figure 8 highlights, the current share of services in the Indian economy does not look unusual given India’s level of income per capita.<sup>16</sup>

**Explaining India’s services revolution**

While catch-up is likely to be part of the explanation for the nature of India’s current



**Figure 6**

Source: World Bank World Development Indicators online



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growth path, the rapid expansion of India's services sector also reflects the way in which India's development model has shaped economic take-off. Some evidence of this is visible in the nature of service sector growth.<sup>17</sup> In particular, the growth acceleration was not uniform across service sub-sectors. Particularly high rates of growth were evident in the business investment sub-sector (which includes the IT industry), the fastest growing sub-sector in the 1990s, enjoying average annual growth rates of close to 20%. Other fast-growing sub-sectors included communications services, banking and finance, and community services and hotels and restaurants.

One investigation of the *sources* of this service sector growth finds that part of the explanation rests on 'splintering' (the contracting out of services from industrial companies) and part on the effect of higher incomes operating on the elastic demand for services. Economic liberalisation played an important part in stimulating growth in certain sectors (with the communications sector an obvious beneficiary), and there appears to have been a significant role for foreign demand.<sup>18</sup> Importantly, India was able to seize the opportunities offered by the growth in foreign demand (first Y2K-related demand for IT skills, and then later globalisation-induced cost reduction pressures) – and the offshore outsourcing wave that then followed – by being able to draw on the supply of high quality, low-cost, English-speaking workers that were a product of its earlier development model.

Structure of India's GDP

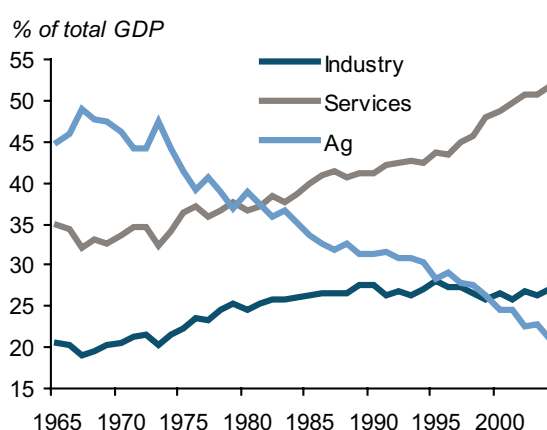


Figure 7

Source: World Bank World Development Indicators online

Is India's services model an outlier?

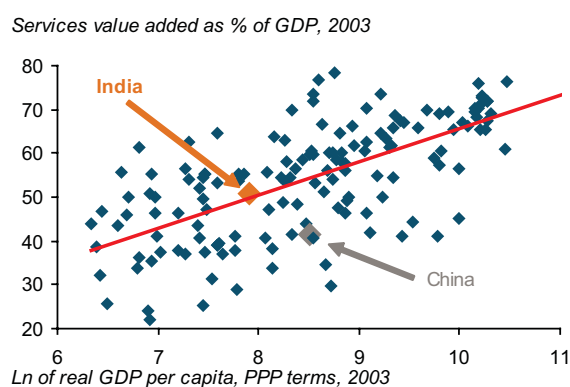


Figure 8

Source: World Bank WDI and author calculations.

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According to estimates by McKinsey and NASSCOM, India now accounts for 28% of IT and BPO talent among 28 low-cost countries.<sup>19</sup>

The export story

The East Asian experience has led to an assumption that economic take-off in emerging markets will tend to be export- (and investment-) led. Once again, India is an exception, with a growth profile that is currently more reliant on domestic demand in general, and on consumption in particular. That said, it is India's success as an exporter of services that has grabbed international attention. Indeed, to some extent the importance of services in the current Indian model is perhaps even more evident in India's export performance (Figure 9). In particular, India has seen a dramatic expansion in the 'other non-

commercial services' category (that is, commercial services excluding the more traditional service sector exports of travel and tourism).

India's recent export performance

Index, US\$ values, 1990=100

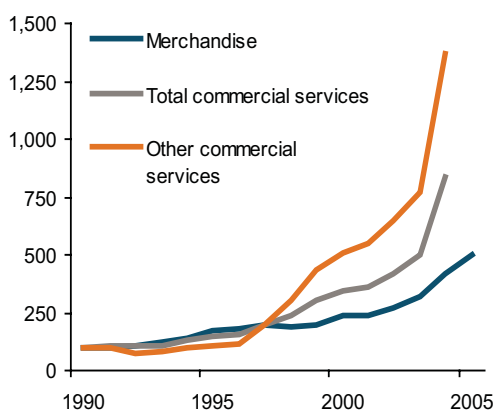


Figure 9

Source: World Trade Organisation (2006)

While its share of world merchandise trade may still be below that achieved in the early 1960s, India has seen a marked increase in its share of world commercial services trade. India's share of world other commercial services exports has more than tripled in less than a decade: by 2004 India had almost 3% of the world market for 'other' commercial services exports, up from 0.4% in 1996 (Figure 10).

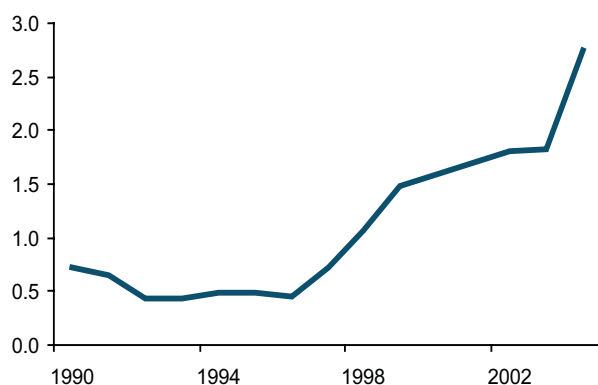
Moreover, many of these gains in market share have been in new economy sectors like software, where India's share of the global market is around 17%, and where India's export growth has been double the world average. By 2004 McKinsey was estimating that Indian firms controlled more than half of the global IT and BPO markets.<sup>20</sup>

More recently, in a study with NASSCOM released at the end of last year, McKinsey estimated that India accounted for 65% of the global offshore IT and 46% of the global BPO industry. The same study reports that India's offshore industries accounted for 6% of the increase in GDP between 2000 and 2004<sup>21</sup> One consequence is that exports of other commercial services have a surprisingly large share in India's total export profile (Figure 11).

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**India's share of other commercial services exports**

% of world total

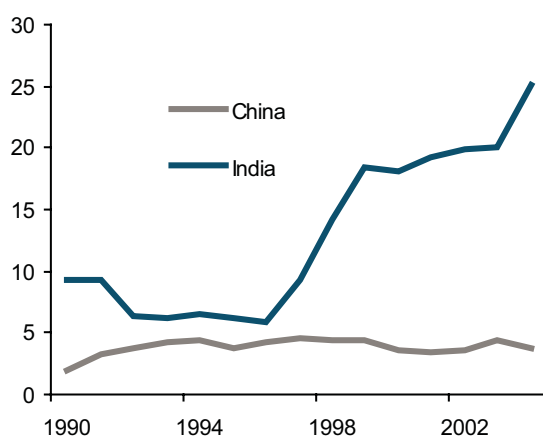


**Figure 10**

Source: World Trade Organisation (2006)

**Exports of other commercial services**

% of total exports



**Figure 11**

Source: World Trade Organisation (2006) and author calculations

**What about industry?**

Finally, while the peculiarities of its development model mean that it has been the services sector that has led India's growth take-off, there are also signs that it is delivering an improved industrial performance. In particular, there seems to have been a marked increase in manufacturing growth since 2001/02. Again, however, the Indian experience looks somewhat atypical. Indian industry, at least in the formal sector, tends to be biased towards capital- and skilled-labour-intensive production, rather than the (low-skilled) labour-intensive production that India's large population would seem to indicate should be an area of comparative advantage.

Take the case of India's merchandise export performance. While the expansion of merchandise trade in recent years has certainly not been as dramatic as say, China's, it is still a far from an unimpressive story. Since 2002/03, India has recorded annual average merchandise export growth in excess of 20% and merchandise exports finally breached the US\$100 billion mark in 2005/06 (although as of 2005 India was still only the world's 29<sup>th</sup> largest exporter). India's merchandise exports now boast a broader and more dynamic base, along with more diversity in trading partners.<sup>22</sup> However, reflecting the nature of the Indian development path discussed above, many of the most successful export sectors have been capital- and skill-intensive. Technology-intensive engineering goods account for 21% of merchandise exports, and chemicals (including pharmaceuticals) a further 14%.<sup>23</sup> In contrast,

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India is largely unrepresented in many labour-intensive manufacturing sectors, despite the fact that India boasts much lower wages than its competitors (in 2002 monthly wages in manufacturing were about US\$23.80 compared to US\$110.80 in China and US\$366.40 in Mexico) and healthy productivity growth. Large areas of potential Indian comparative advantage therefore seem to remain untapped.<sup>24</sup>

**III. PERFORMANCE**

The previous section established that India’s current development model appears to have several unusual features, with an emphasis on services and skilled-labour- and capital-intensive sectors. This section looks at how that model has performed in practice.

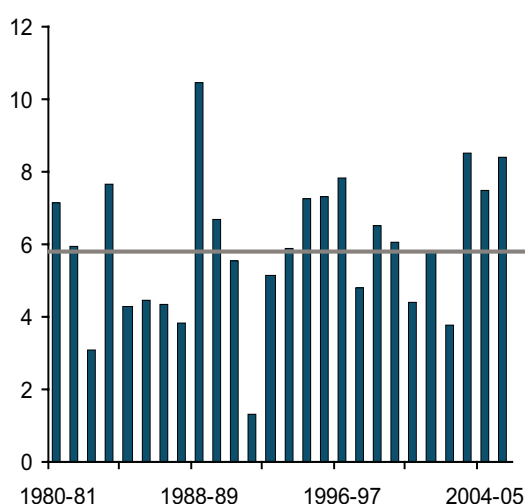
**Faster growth?**

There are clearly a whole series of benchmarks against which performance could be judged. The impact on poverty – in a country where up to a quarter of a billion people still live on less than one (purchasing power adjusted) dollar a day – must be a standout contender. Perhaps even more important, however, is the ability of India’s model to deliver rapid and sustained economic growth.<sup>25</sup>

In part, this judgement reflects the standard economists’ belief that growth is a necessary (albeit not always sufficient) condition for meeting most other national welfare objectives, including that of lowering poverty. But it also draws on the argument advanced persuasively by Benjamin Friedman, to the effect that there is a strong moral case to be made for caring about economic growth.<sup>26</sup> And as noted earlier, it has been faster growth (as well as scale) that has interested foreign observers and investors, and is what lies behind forecasts of India’s greater prominence in the world economy.

**India's annual GDP growth (1)**

*% change, constant prices*



**Figure 12**

Source: Government of India (2006); press reports; author’s calculations

So, how does India’s recent growth performance stack up? The answer is, it looks pretty good, with India one of the fastest growing economies in the world in recent years. True, in FY2002-03 growth had slumped to less than 4% on the back

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of a poor monsoon.<sup>27</sup> But growth rebounded the following year, and last year (financial year 2005/06) saw real GDP grow at 8.4% (Figure 12). Indeed, for the past three years in a row, growth has now averaged over 8% and at the time of writing, official forecasts for the current financial year were for a growth result of between 7.5% and 8%.

Taking a somewhat longer perspective reveals that India has been able to maintain an average rate of GDP growth of close to 6% since the start of the 1980s, and a rate of around 6.5% over the past decade.

So while debate may continue over whether it was the 1980s or 1990s that marked the decisive break to a higher growth path (growth did pick up in the 1980s, but its sustainability is questionable), it is clear that the new growth model is delivering a result that is superior to what went before, and which also stacks up well against the growth experience of most other countries.<sup>28</sup> However, Asia's other populous giant, China, continues to win in the growth race stakes, as a simple comparison of trends in the two countries' GDP per capita since 1980 illustrates (Figure 13).

#### Sustainable growth?

While most observers would accept that India has now successfully managed to move onto a higher growth trajectory (Figure 14), there is still no consensus as to just what the underlying rate of potential or sustainable growth actually is.

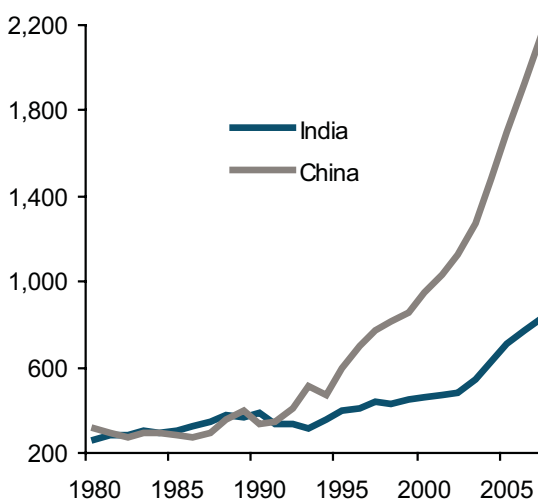
For optimists, current growth rates of around 8% are pretty close to India's new potential growth rate. Others suspect that a more realistic appraisal would suggest a sustainable growth rate that is closer to the 6% or so average rate recorded since the 1980s.<sup>29</sup>

#### Good luck or good policy?

At least some of India's good performance on the growth front in the past couple of years can be attributed to some quite benign international conditions, including ample global liquidity and

#### GDP per capita

US\$ terms, current prices



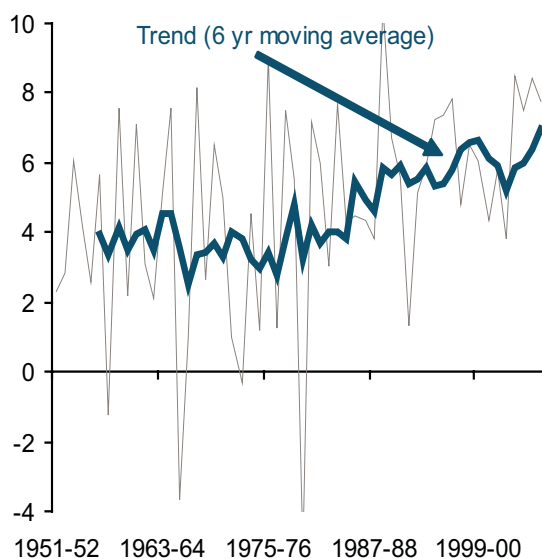
**Figure 13**

Source: International Monetary Fund (2006)

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**India's annual GDP growth (2)**

% change, constant prices



**Figure 14**

Source: Government of India (2006); press reports; author's calculations

very low investor risk aversion. Still, a critical difference relative to the past is that a more internationally-integrated India is now well-placed to take advantage of such circumstances. Moreover, growth has been sustained despite the fact that not *all* conditions have been helpful. In particular, the current ramping up of Indian growth has taken place over a period that has included a change of government from what was widely perceived as a pro-reform administration to an administration seen as more ambivalent, not least because of the constraints of coalition politics, as well as a period of sustained high oil prices that have significantly inflated the import bill.<sup>30</sup>

Growth has also proved to be resilient despite a fairly lacklustre performance in terms of delivering additional policy reforms. Political constraints have meant that, despite the 'dream team' now at the helm of economic policy, there has been very little progress with labour market reform or privatisation, and only modest progress in terms of fiscal consolidation and infrastructure development. Indeed, one of the most striking things to come out of a recent research trip to India was the disconnect between the high degree of optimism with which businesses and analysts talked about the economy, and their pessimism regarding the government's ability to deliver anything substantive on reform.<sup>31</sup>

**What about poverty?**

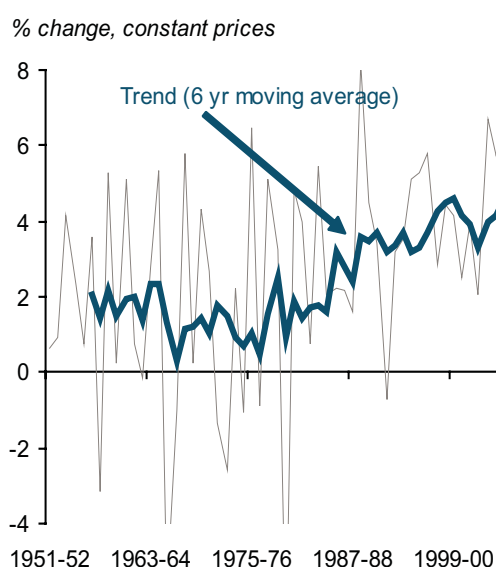
While the new Indian growth model scores well in terms of economic growth, it is also important that this growth makes a dent in India's poverty statistics. Stronger growth, together with a slowing rate of population growth, implies higher GDP per capita which would, all else equal, be expected to produce a decline in absolute poverty (Figure 15). Yet perhaps surprisingly (although then again, perhaps not, given the ideological stakes involved), there is still no clear academic consensus on what happened to Indian poverty rates during the decade that followed the 1991 reform push, due in large part to dissatisfaction with the official Indian data.<sup>32</sup>

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Official poverty estimates for India are based on regular surveys of consumer expenditure conducted by the National Sample Survey (NSS) Organization. The focus is on the headcount ratio (HCR) which records the proportion of the population below the official poverty line. Although annual surveys have been conducted, the data that receive most attention are those produced by the largest surveys, which are carried out every five or six years. The most recent of these was the 61<sup>st</sup> NSS round, carried out in 2004/05. Figure 16 reports the results of the last seven of these large rounds. There was a marked fall in the HCR, from 36% in 1993/94 to 26% in 1999/00, and then to 22% in 2004/05 (which would still leave more than 220 million Indians below the official poverty line).

These official numbers have been the subject of intense debate, however, with changes to the NSS methodology in the 1999/2000 survey in particular calling into question its comparability with previous estimates.<sup>33</sup> Meanwhile, optimists have argued that the official numbers show too *small* a fall in recorded poverty, while pessimists make the case that they significantly *overestimate* any decline.<sup>34</sup> Despite the continuing controversy, however, once supporting evidence - from national accounts estimates of consumption, data on wage rates, and other surveys - has been taken into account, the evidence does seem to suggest that India's new development model has also delivered a continued fall in poverty.<sup>35</sup>

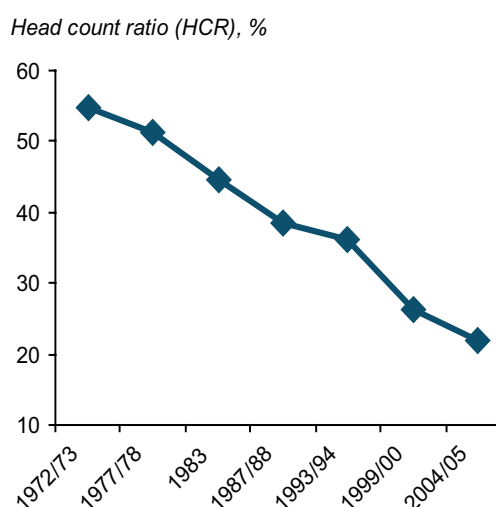
**Annual growth rate of GDP per capita**



**Figure 15**

Source: Government of India (2006); press reports; author's calculations

**Poverty trends**



**Figure 16**

Source: Virmani (2005) and media reports

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**IV. PROSPECTS**

The new Indian development model *is* delivering an improved performance in terms of stronger economic growth. There is also reasonable evidence that this is being translated into continued reductions in poverty, although the pace of decline is more debatable. Can this progress be sustained? And is an even better performance – such as double digit growth rates – possible?

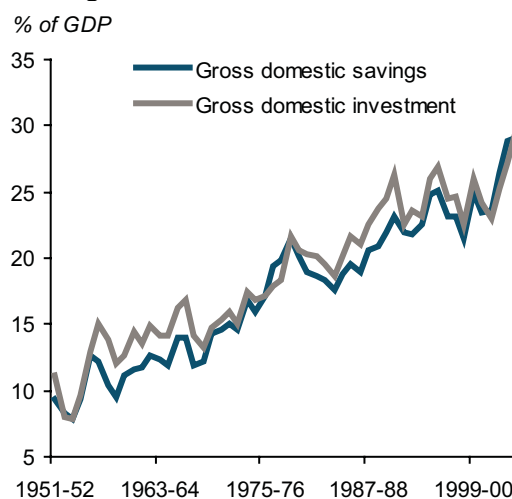
**Building blocks for growth**

Basic economic theory tells us that a country’s growth potential is a product of the likely growth of the inputs of capital (determined by investment and savings rates) and labour (determined by demographics and participation rates), as well as the productivity or efficiency with which these inputs are used. Using this kind of framework, it is possible to identify several reasons to be optimistic that India’s recent growth performance can be sustained, and perhaps even improved upon.<sup>36</sup>

There has been a trend increase in both savings and investment rates, which are currently headed for the 30% of GDP mark (Figure 17). This is despite the fact that the public sector both continues to be a source of dis-saving, running large consolidated budget deficits, and has pared back on investment spending.

At the same time, a more open economy also allows India to tap foreign savings and investment.

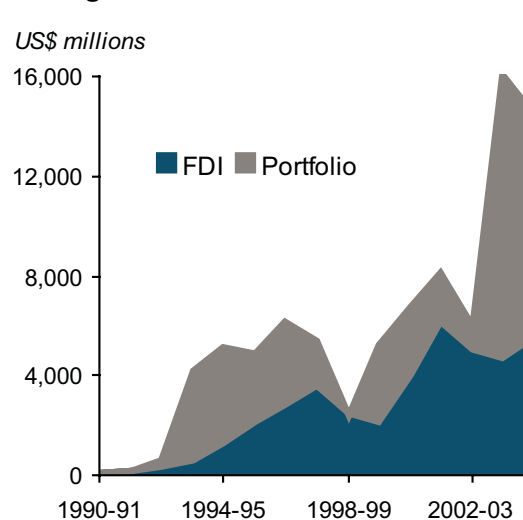
**Savings and investment rates**



**Figure 17**

Source: Government of India (2006)

**Foreign investment inflows**



**Figure 18**

Source: Reserve Bank of India



**ROARING TIGER OR LUMBERING ELEPHANT?**

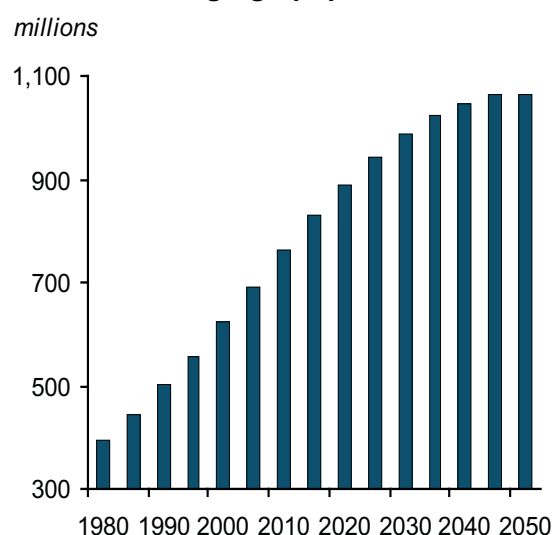
Inflows of foreign capital have increased markedly since the early 1990s, although to date the response of foreign direct investment (FDI) has been relatively modest and in recent years it has been *portfolio* investment inflows that have surged (Figure 18).

**India's demographic dividend**

Another reason for optimism about growth prospects – and one that is highlighted in most upbeat assessments of India's outlook – is the country's favourable demographics. At the most basic level, continued population growth means that India will continue to benefit from the potential offered by a growing supply of workers. Between 2005 and 2010, UN projections suggest that India's working age population will expand by about 70 million, or close to one-quarter of the total expansion of the global working age population forecast for this period (Figure 19).<sup>37</sup>

Perhaps more importantly, however, India is also set to benefit from the changing age structure of its population. In particular, India is currently in the midst of a period of a sustained fall in its dependency ratio (the ratio of the share of the population aged 0-14 and over 65 to the share of the working age population, 15-64). Sharp falls in the dependency ratio are associated with accelerated economic growth in East Asia, and the potential exists for India to enjoy a boost from demographically-induced increases in savings and investment (Figure 20).<sup>38</sup>

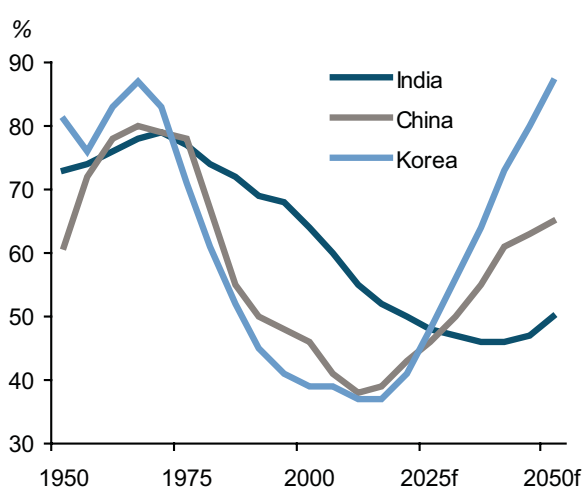
**India's working age population**



**Figure 19**

Source: United Nations Population Division (2005)

**Total dependency ratio**



**Figure 20**

Source: United Nations Population Division (2005)

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**Will productivity growth help?**

So far we have focused on the possibility of the addition of more resources (investment, labour) sustaining or boosting India’s growth prospects. Another important factor is the efficiency with which those resources are utilised. Optimistic forecasts of India’s growth performance often focus on the increase in productivity growth recorded under the new development model, and the possibility for further increases.

Table 1 reports estimates for trend growth in productivity and in factor inputs (capital, labour and land) for India, and confirms that the new development model does appear to be associated with an improvement in India’s productivity performance.

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**Table 1: Growth of GDP, total factor inputs (TFI) and total factor productivity (TFP)**

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%	1950/1-1966/7	1967/8-1980/1	1981/2-1990/1	1991/2-1999/0
GDP	3.8	3.4	5.3	6.5
TFI	2.4	2.7	3.3	3.9
TFP	1.4	0.7	2.0	2.6

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Source: Table 2.2 in AcharyaAhluwaliaKrishna and Patnaik (2003)

Since (total factor) productivity is constructed as a residual – that part of output growth that is not explained by recorded growth in inputs – there must inevitably a degree of uncertainty regarding the reliability of these kinds of estimates, and particularly in projecting them forwards.<sup>39</sup> Still, there are some grounds for expecting that India’s productivity performance may be boosted by some of the features of the new development model. In particular, the shift to greater openness to trade and foreign investment, along with an increased role for domestic market signals, may allow these estimated increases in productivity performance to be sustained, and possibly improved upon.

**Institutional assistance**

A final factor that is often identified as a source of potential growth for India is the strength of the country’s institutions. Several observers have noted that the quality of India’s institutions tends to be higher than might be expected for a country with India’s low level of income per capita.

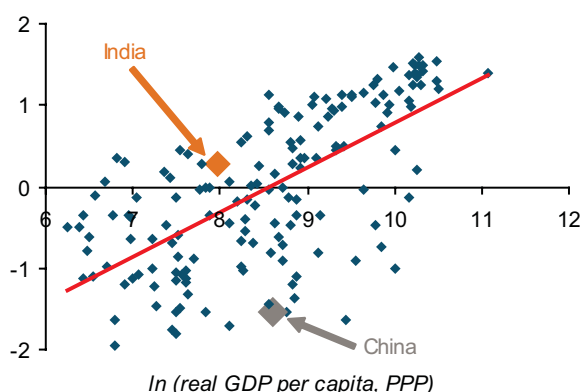
The World Bank has constructed a series of six indicators that track elements of governance: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory

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Quality, Rule of Law and Control of Corruption.<sup>40</sup> These confirm that India scores well on rule of law and particularly well on voice and accountability relative to its level of income (Figure 21).

**Governance and economic performance (2004)**

Voice and accountability index



**Figure 21**

Sources: World Bank (2005), World Bank (2006) and author's calculations.

One possibility, then, is that India has built good economic and political institutions, but that the failings of the old, dysfunctional development model meant that the economy failed to advantage of them. Now that the old model has been discarded, there should be scope for India to benefit from a process of rapid catch-up.<sup>41</sup> Alternatively (or additionally), the importance of India's democratic institutions as a shock absorber may deliver increased political, and hence economic, stability.<sup>42</sup>

There is almost certainly something to these arguments, but there are problems here too. First, there is reason to fear that the quality of at least some of India's institutions is in decline. Second, while India derives important microeconomic benefits from some of its institutions, the Licence Raj is not yet dead, particularly at state level, and lashings of red tape continue to impede business effectiveness. This is visible in another set of survey data collected by the World Bank, which looks at the costs of doing business in 155 economies. India is ranked a lowly 116<sup>th</sup> place (one spot below Indonesia), compared to China's 91<sup>st</sup> place.<sup>43</sup>

V. PROBLEMS

The previous two sections highlighted the way in which the new Indian development model has delivered an improved growth performance and several reasons to hope that that this performance might be at least sustained, if not improved. In this section we turn to some of the challenges that will need to be met if India is to realise this potential.<sup>44</sup>

**Can Indian cash in on the demographic dividend?**

We argued above that India's demographic profile was one reason to be optimistic about the growth prospects of the new Indian development model. But these changes are largely about *potential*. India's

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demographic dividend will pay off only to the extent that the economy can generate the demand and jobs necessary to employ this expanding labour force. And, as noted by Vijay Joshi for example, one potentially big problem with the new Indian development model is that growth in the formal sector to date appears to have been essentially 'jobless', with employment falling in the organised manufacturing sector and little changed in services.<sup>45</sup>

It is certainly the case that the high profile, high end services sector cannot be the solution to India's employment needs on its own. The McKinsey-NASSCOM study cited above estimated that, taken together, the IT and BPO industries directly employ around 700,000 people, and provide indirect employment to perhaps a further 2.5 million workers. On their forecasts, the two industries would employ nearly 2.3 million people by 2010 and provide indirect and induced employment for another approximately 6.5 million workers.<sup>46</sup> While this is not unimpressive, it would still only represent jobs for a tiny fraction of an Indian working age population that is forecast to be more than 760 million by the end of the decade.

There are several explanations for the low employment elasticity of growth in India. Part of the story lies in the nature of the Indian development model, which, as outlined above, has been biased towards skilled labour- and capital-intensive sectors. This in turn is a product of several factors, including the legacy of labour market and SSI reservation policies that have worked to hamper the development of more labour intensive sectors.<sup>47</sup> But there are other obstacles to employment creation, including infrastructure shortcomings and the failings of the Indian education system at the primary and secondary levels.

#### **Macroeconomic vulnerabilities**

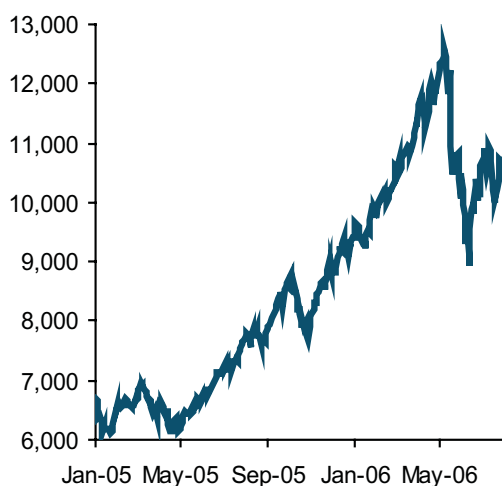
In order to achieve the sustained high growth rates discussed above, India also needs to avoid major macroeconomic 'accidents'. While theory suggests that the long term impact of economic crises should be strictly limited, the experience of the East Asia crisis showed the growth and development cost of a large scale economic shock can be substantial.

Indeed, India's possible vulnerability to a macroeconomic shock became the subject of increased focus earlier this year, when the country's stock markets were buffeted by a wave of selling. Until May 2006, India boosters could point to the performance of the benchmark BSE Sensex index as an indicator of economic success, and of market confidence in that success, as the Sensex soared to a series of record highs. But the stock market fell sharply in May, and by early June was back below the 10,000 level for the first time since February 2006 (Figure 22).

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**BSE Sensex stockmarket index**

1978-79=100

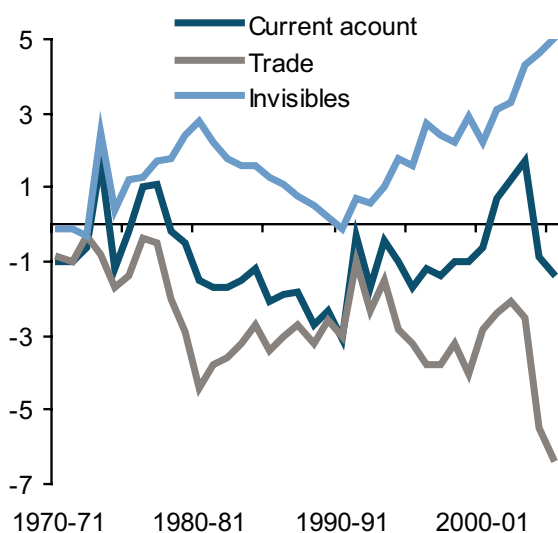


**Figure 22**

Source: Press reports: last data point is 31 July 2006

**India's current account balance**

% of GDP



**Figure 23**

Sources: Reserve Bank of India (2006), RBI press release, author's calculations

Explanations for this abrupt change in sentiment vary, and a range of possibilities has been canvassed. Some have focused on the external environment, highlighting broader changes in international conditions and sentiment that afflicted emerging markets worldwide, including changes to risk perceptions and expectations about the future path of growth, inflation and interest rates, and the consequent impact on (particularly foreign portfolio) investors. Other explanations have looked to India-specific factors, including profit-taking after the stock market had become overextended; market mechanics linked to margin calls; rumours relating to mooted changes in the tax treatment of foreign institutional investors; and a reaction to political news following several key state elections.<sup>48</sup>

One factor that received a lot of attention was India's vulnerability to an adverse external shock such as a major shift in investor risk appetite, with several commentators noting that India was one of the few major emerging markets to be running 'twin deficits' (current account and budget deficits). In particular, India's growing trade and current account deficits (Figure 23), and a reliance on inflows of potentially volatile portfolio investment to fund this external shortfall, were seen as an important source of vulnerability.<sup>49</sup>

The dramatic increase in India's trade deficit in 2005/06 – soaring to US\$51.6 billion or more than 6% of GDP from US\$36.6 billion the year before – has been driven in large part by the run-

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up in oil prices: while merchandise exports grew by 27.5% and non-oil imports were up 20.5% on the previous year, oil imports ballooned by 47%, reflecting an increase in the average price of Indian purchased crude to US\$55.40/barrel in 2005/06 from US\$38.90/barrel in 2004/05.

However, India also recorded a healthy surplus of US\$40.9 billion on the invisibles account, mainly reflecting software exports (US\$23.6 billion) and remittances from Indian workers overseas (US\$24.5 billion).<sup>50</sup> As a result, India's current account deficit last financial year was US\$10.6 billion, or a fairly modest 1.3% of GDP. This shortfall was more than covered by net inflows of foreign direct investment (US\$5.7 billion), portfolio investment (US\$12.5 billion) and other borrowings, allowing an increase in foreign exchange reserves of US\$15 billion. India's stock of foreign exchange reserves is now the fifth highest in the world. Indeed, a look at some of India's external vulnerability indicators (Table 2) suggests that, despite these recently expressed fears, the risk of external crisis remains relatively low.

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**Table 2: Debt sustainability indicators (end March 2006)**

Ratio of	%
Total debt to GDP	15.8
Reserves to total debt	121.1
Short term debt to total debt	7.0
Short term debt to reserves	5.8
Debt service ratio (2005-06)	10.2

Source: Reserve Bank of India (2006)

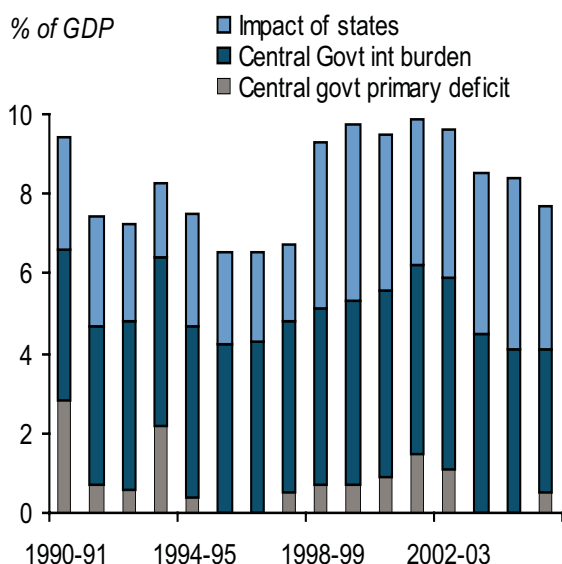
What about the other half of India's twin deficits problem, the fiscal deficit? As Figure 24 confirms, India continues to be plagued by large consolidated (central plus state) government budget deficits. In 2005/06 the central government ran a primary deficit (that is, a non-interest deficit) of about 0.5% of GDP, and an overall

deficit of just over 4% of GDP. Once the impact of state deficits is included, the consolidated general government deficit was probably close to 8% of GDP. And that is *before* taking off-budget subsidies into account.

In fact, there has been some progress on the fiscal front, with a steady fall in the consolidated government deficit since it reached a peak of around 10% of GDP in 2001/02. Faster economic growth – and the consequent boost to government revenues – has played a key role here, while lower interest rates on public debt have also helped. Fiscal reforms have also had a part to play, thanks to efforts to improve the efficiency of tax collection and administration, adjustments to corporate and income taxes, and policies to broaden the tax base.

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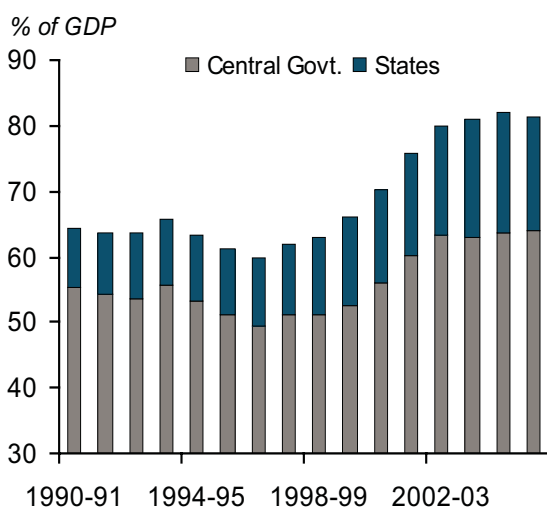
**General government deficit**



**Figure 24**

Source: Government of India (2006), press reports, author's calculations

**Public debt burden**



**Figure 25**

Source: Government of India (2006) and press reports

At the centre, the Fiscal Responsibility and Budget Management (FRBM) Act commits the central government to reduce its deficit to 3% of GDP by 2008/09. The current government announced that it was temporarily suspending efforts to comply with the FRBM rules in the 2005/06 budget, but in the 2006/07 budget announced a return to the FRBM trajectory, with a target for the central government deficit (of 3.8% of GDP) consistent with FRBM requirements.<sup>51</sup> As for the states, the introduction and implementation of a state level value-added tax, together with an increase in the amount of resources transferred to them from the centre, may herald some improvement in state-level finances.

Despite these improvements, however, large fiscal deficits and the associated public debt burden remain a potential Achilles heel for India's new development model. India's public sector debt burden, at around 80% of GDP, is now at the sort of levels associated with 'crisis' economies such as Argentina and Turkey (Figure 25).<sup>52</sup> The good news for India is that most of this debt is in the form of long-term, fixed rate domestic paper, and is held by Indian banks. This suggests that the *immediate* dangers imposed by, say, a crisis of confidence on the part of foreign investors are probably limited. But they are not trivial: a sharp rise in global interest rates would imply significant losses to the investment portfolios of Indian banks, for example.<sup>53</sup>

Moreover, large fiscal deficits with a high share of government expenditure committed to

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debt service payments leave little scope for the authorities to target spending in crucial areas such as infrastructure.

**Infrastructure bottlenecks**

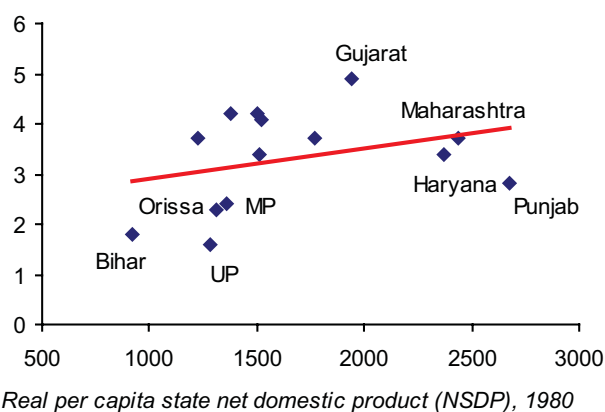
This last is important, since in order to sustain or improve on current growth rates, India needs to overcome some significant infrastructure constraints. With the exception of the telecommunications sector, the cost of most infrastructure services in India is at least 50-100% higher than in China, with Indian manufacturers estimated to pay more than twice their Chinese counterparts for electricity and three times more for rail freight.<sup>54</sup> Moreover, the problem is not just one of price: basic access to and reliability of service is also a major concern, and power bottlenecks in particular remain a key constraint on growth.

Again, a contrast with China highlights the issue: as of 2003, China was not only spending seven times as much as India on infrastructure in absolute terms (US\$150 billion v US\$21 billion), but also a much higher share of GDP (10.6% of GDP v 3.5% of GDP).<sup>55</sup> But the budgetary problem outlined above means that the Indian government is limited in what it can deliver in terms of direct spending on infrastructure. Instead, the authorities have turned to creative solutions to India's infrastructure woes. One of these is public-private partnerships, which are in increasing use. Another is the creation of a special purpose vehicle (SPV) with the power to borrow domestically to provide a source of long-term infrastructure finance.

Again, there is some good news. India's telecommunications sector now provides Indians with one of the cheapest phone services in the world, and with three million new connections each month, it is a powerful example of what could be achieved. Domestic air transport is also enjoying rapid growth. Elsewhere, there are much more modest signs of improvement in terms of India's road and rail networks, and even some positive signs in the power sector.<sup>56</sup> But there remains a long way to go.

**India's state level economic performance**

*Avg growth in real per capita NSDP (1980-2004)*



**Figure 26**

Sources: Central Statistical Organisation and author's calculations. Data for Uttar Pradesh (UP), Andhra Pradesh (AP) and Karnataka cover 1980/1-2002/3. All other data are for 1980/1-2003/4.



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#### Human capital shortcomings

It is not just in terms of the physical capital associated with infrastructure investment that the Indian model demonstrates some shortcomings. As described above, that model has been very successful in delivering the high quality tertiary education that has helped turn India into the world's back office. But its performance in terms of supplying basic primary and secondary education has been relatively less impressive. As a result, India's literacy rates lag well behind those of China, for example. According to World Bank data, in 2004 the adult literacy rate in China was 91%, compared to just 61% in India. If the potential of India's expanding workforce is to be realised, the Indian education system needs to be upgraded.

Once again, there are signs of improvement to be reported. Indian government data report a significant drop in the number of children not enrolled in primary or secondary education over the course of the 1990s, for example, and there has been an impressive expansion in primary education.<sup>57</sup> Even with this progress on enrolment, however, there remain important problems, both in terms of absenteeism (for students *and* for teachers) and the quality of education on offer.

#### Diverging state performance

While the growth performance of the economy overall has been quite impressive, the experience at state level has been a varied one. As a consequence, there appears to be a growing divergence in economic performance between, on the one hand, the relatively wealthy states of South and West India, and on the other, the poorer states of the North and East.<sup>58</sup> Worryingly, the evidence suggests that while India's new development model is allowing the wealthier states to accelerate their growth performance, the poorer states are lagging behind (Figure 26).

This diverging performance is problematic for a number of reasons, not least because more than half of India's poorest citizens are now found in four of the poorest states, but also because it is in these same states that India's *future* population growth is likely to be concentrated (Table 3).<sup>59</sup> Continued under-performance by these states would not only be bad news for poverty reduction, but could also have adverse political consequences for the future direction of Indian economic policy, by undermining the attractiveness of the current development model.

## ANALYSIS

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**Table 3: Diversity of state performance**

	NSDP per capita (US\$), 2003/4	% all India population, 2001	Poverty – head count rate (%), 2000	% pt contbn to India popn. growth, 2001-2026F
Haryana	652	2.1	11.8	2.1
Maharashtra	636	9.4	28.7	6.9
Punjab	606	2.4	6.0	1.7
Gujarat	587	4.9	15.6	4.5
Kerala	533	3.1	14.5	1.7
Tamil Nadu	508	6.0	21.5	2.4
Karnataka	472	5.1	25.6	3.3
West Bengal	455	7.8	32.1	6.1
Andhra Pradesh	452	7.4	18.8	4.1
Rajasthan	337	5.5	20.4	6.8
Madhya Pradesh	305	7.9	36.8	9.4
Orissa	270	3.6	46.3	2.2
Uttar Pradesh	235	17.0	33.0	24.6
Bihar	126	10.7	46.9	14.4

Sources: Central Statistical Organisation; author's calculations, table 1 in Purfield (2006), and tables 5.2 and 5.7 in Dyson (2004). NSDP is Net State Domestic Product.

#### Is democracy a 'problem'?

Finally, it is worth asking whether democracy should be included in the list of problems facing India's development model. This question is the flip side of the proposition set out above to the effect that India benefits from strong institutions, since it seems that for every argument that says India benefits from its democratic institutions, another can be found highlighting the constraints on policymakers they impose. In particular, many have pointed to the comparative performance sketched out in Figure 13 as confirmation that Chinese autocracy delivers superior economic results to Indian democracy, with a common criticism of the latter that it makes the pursuit of economic reform painfully difficult.<sup>60</sup>

This dichotomy reflects the complex relationship between politics and economic reform in India. On the one hand, it is possible to argue that the failure to sustain even the quite modest reform efforts of the 1980s is indicative of a democratic (or at least political) barrier to reform. Yet on the other, the relative longevity of the more ambitious reform push that began at the start of the following decade,

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and which was sustained across several changes of government, suggests that democratic governments need not necessarily be inimical to economic liberalisation. Even in this case, however, it is often claimed that Indian governments have only been able to deliver economic reform by stealth, either by deliberately seeking to disguise the reform process, or because other factors (such as caste or religion) have swallowed the electorate's attention.<sup>61</sup> Evidence based on the 1996, 1998 and 1999 elections certainly seems to imply that voter awareness about economic reform as an election issue was very low, although possibly increasing.<sup>62</sup> Distinguishing the impact of reform policies from the rest of the political platform on voter choice is problematic, with regional, caste, religious or local issues all likely to crowd out reform as an election-winning issue.

This issue was given new life by the 2004 general elections, the results of which – the defeat of the ruling National Democratic Alliance (NDA) – were interpreted by some as a rejection of reform. With the NDA making India's economic success the centrepiece of its *India Shining* campaign, it was hard to make the case that the election was not about economic reform. But advocates of liberalisation could point to several reasons that the NDA's defeat did not necessarily imply voter rejection of economic liberalisation. These included the propositions either that the vote was better seen as a rejection of the NDA's communal politics, or that it was predominantly an anti-incumbent vote. Moreover, Congress and its allies in the United Progressive Alliance (UPA) were on record as not being opposed to reforms as such, but rather to the NDA's implementation of them. Interpreting the results was anyway complicated by the structural changes in Indian politics underway since the early 1990s.<sup>63</sup> Still, assessments of the National Election Study 2004 do seem to confirm a degree of public ambivalence about India's development path at the time of the last elections.<sup>64</sup>

Regardless of motive, the *outcome* of the election was a minority coalition government dependent on the external support of leftist parties with a professed distaste for economic liberalisation (at least at the Federal level). There seems to be little doubt that this political environment has acted to limit the reformist instincts of India's prime minister and finance minister, as a result of which progress in several key areas (labour market reform, privatisation) has ground to a halt.<sup>65</sup>

On balance, it is perhaps best to see India's democracy as a constraint on policy, rather than a problem per se. It is a constraint that brings with it important benefits, as well as some drawbacks. It is also a constraint that may now be more binding than it was in the past, when Congress dominated the political landscape. In particular, since 1989, consecutive Indian governments have faced a high probability of serving for only one five-year term and then being voted out of office. At the same time, neither of the two major parties – Congress and the Bharatiya Janata Party (BJP) – currently looks to

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be capable of securing enough votes to govern without the support of a coalition, a coalition moreover that is dependent on the support of regional elements. Both developments have important implications for the political economy of reform and the current Indian development model. <sup>66</sup>

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#### VI. CONCLUSION

India's new economic model has transformed the country's economic performance. Granted, in per capita terms, India today remains a poor country, and the development process clearly still has a long way to run. But the good news is the economy *has* now shifted on to a higher growth trajectory, one that has made India one of the fastest growing economies in the world, and one which, if sustained, is set to see India become a major power in the world economy.

Some more good news is that India certainly has the potential to sustain, and perhaps even improve upon, its recent growth performance. However, for that potential to be realised, there remain a series of significant obstacles to be overcome. These obstacles are well known, and there are some encouraging signs of progress to be found. But it should also be recognised that the policy challenges remain substantial and testing ones. Faster growth is attainable, but it is also far from guaranteed.

The idiosyncratic nature of India's development process – together with the constraints imposed by India's politics – means that we are not seeing a simple re-run of the East Asian tiger story. Still, although elephants are more ponderous than tigers, they are impressive beasts. The size, power and momentum of the Indian elephant should not be underestimated.

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#### NOTES

<sup>1</sup> Mark Thirlwell, *India: the next economic giant*. Lowy Institute Paper 01. Sydney, Lowy Institute for International Policy, 2004. This paper is available for download from the Lowy Institute web site, [www.lowyinstitute.org](http://www.lowyinstitute.org).

<sup>2</sup> See Angus Maddison, *The world economy: historical statistics*. Paris, OECD, 2004.

<sup>3</sup> Perhaps the most well known of these is Dominic Wilson and Roopa Purushothaman, *Dreaming with BRICs: the path to 2050*. Global Economics paper No 99Goldman Sachs, 2003.

<sup>4</sup> PPP rates are used to equate the cost of a 'typical' basket of goods and services across countries, by adjusting for the fact that the price of non-traded items (such as haircuts) tends to differ significantly across borders. By attempting to correct for this bias, PPP-based measures award developing economies like India a much higher share in global GDP. There is some debate as to whether PPP or market exchange rate based measures are the more appropriate benchmark, with a common view being that the choice depends on what exactly is to be measured. For the case that PPP should always be the choice, see Ian Castles and David Henderson, International comparisons of GDP: issues of theory and practice. *World Economics* 6 (1) 2005.

<sup>5</sup> Bilateral services trade in 2005 was worth around A\$1.3 billion, of which exports accounted for around A\$1 billion, of which A\$0.7 billion were education-related travel.

<sup>6</sup> This section draws on Chapter 1 of Thirlwell, *India: the next economic giant*.

<sup>7</sup> There is a case that, East Asia aside, India's relative performance in terms of economic growth over the post-Independence period, while not exceptionally good, was not exceptionally bad, either. See for example Bradford DeLong, *India since independence: an analytic growth narrative*, in *In search of prosperity: analytic narratives on economic growth*. ed. Dani Rodrik. Princeton, Princeton University Press, 2003.

<sup>8</sup> See Kalpana Kochhar, Utsav Kumar, Raghuram Rajan, Arvind Subramanian and Ioannis Tokatlildis, *India's pattern of development: what happened, what follows?* IMF Working Paper WP/06/22. Washington DC, International Monetary Fund, January 2006. A similar point is also made in Naushad Forbes, *Doing business in India. What has liberalization changed?*, in *Economic policy reforms and the Indian economy*. ed. Anne O Krueger. Chicago, University of Chicago Press, 2002.

<sup>9</sup> See for example the chapter on India (chapter 8) in Daniel Yergin and Joseph Stanislaw, *The commanding heights: the battle for the world economy*. New York, Simon & Schuster, 2002. Also Montek S Ahluwalia, *Economic reforms in India since 1991: has gradualism worked?* *Journal of Economic Perspectives* 16 (3) 2002. T N Srinivasan and Suresh D Tendulkar, *Reintegrating India with the world economy*. Washington DC, Institute for International Economics, 2003. Both emphasise 1991 as a break point.

<sup>10</sup> This is the view taken by Dani Rodrik and Arvind Subramanian, *From "Hindu growth" to productivity surge: the mystery of the Indian growth transition*. IMF Staff Papers 52 (2) 2005. The political economy of this argument is set out by Atul Kohli, *Politics of economic growth in India: Part I the 1980s*. *Economic and Political Weekly* (1 April) 2006. Srinivasan criticises this view in T N Srinivasan, *Comments on 'From "Hindu growth" to productivity*

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<sup>11</sup> Politics – in the form of Indian democracy – is of course another reason the Indian model differs from the path followed by many East Asian economies.

<sup>12</sup> These 'stylized facts' are also associated with the traditional stages of growth view of development. See for example Hollis B Chenery and L J Taylor, Development patterns: among countries and over time. *Review of Economics and Statistics* 50 1968. More recent work has tended to place a greater emphasis on the services sector. See Piyabha Kongsamut, Sergio Rebelo and Dantang Xie, *Beyond balanced growth*. IMF Working Paper WP/01/85. Washington DC, International Monetary Fund, 2001.

<sup>13</sup> Note however, these shifts in the services share of output have not been matched by shifts in employment shares. In other words, the employment elasticity of services (and industrial) growth in India has been low. As a result, a large proportion of the workforce is still employed in the agricultural sector.

<sup>14</sup> World Bank, *Sustaining India's services revolution*. Washington DC, World Bank, 2004.

<sup>15</sup> Kochhar, Kumar, Rajan, Subramanian and Tokatlildis, *India's pattern of development: what happened, what follows?*

<sup>16</sup> Gordon and Gupta point out that if the differential growth rates between services and the rest of the economy that prevailed during the 1990s persisted, then India would find itself with a services share looking like that of an upper middle income economy. Jim Gordon and Poonam Gupta, *Understanding India's services revolution*. IMF Working Paper WP/04/171. Washington DC, International Monetary Fund, September 2004.

<sup>17</sup> There are, however, significant questions regarding the quality of data on India's services. For a cautionary warning, see Shankar Acharya, Services booming! Or are they? *Business Standard*, 23 December 2003.

<sup>18</sup> Gordon and Gupta, *Understanding India's services revolution*.

<sup>19</sup> McKinsey. *The NASSCOM-McKinsey Study 2005*. 2005: [http://www.nasscom.in/upload/10142/Mckinsey\\_study\\_2005\\_Executive\\_summary.pdf](http://www.nasscom.in/upload/10142/Mckinsey_study_2005_Executive_summary.pdf).

<sup>20</sup> Diana Farrell and Adil S Zainulbhai, A richer future for India. *The McKinsey Quarterly*, December 2004.

<sup>21</sup> McKinsey. *The NASSCOM-McKinsey Study 2005*.

<sup>22</sup> See chapter 3 in International Monetary Fund, *India: Selected Issues*. Washington DC, International Monetary Fund, 2006.

<sup>23</sup> A series of three articles in the Financial Times provides an interesting look at India's approach to manufacturing. Peter Marsh, A new manufacturing mantra. *Financial Times*, 15 May 2006. Peter Marsh, Feast of a movable workforce. *Financial Times*, 16 May 2006. Peter Marsh, India's fight to slay the dragon. *Financial Times*, 18 May 2006.

<sup>24</sup> Once again, India's unusual development path is a big part of the explanation (other factors include poor infrastructure and excessive red tape, as discussed below). Panagariya points out that under India's Small Scale Industries (SSI)

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reservation policy, all labour-intensive production including, but not limited to, those sectors in which China built its initial export take-off, were reserved for exclusive production by the small scale sector in India, which in most cases proved unable to deliver either the scale or the quality required by international markets. Arvind Panagariya. *India and China: trade and foreign investment*. Columbia University 2006: <http://scid.stanford.edu/events/PanAsia/Papers/Panagariya.pdf>.

<sup>25</sup> More precisely, growth in GDP per capita. Since India's rate of population growth is declining, however, an increase in the headline GDP rate will meet this criterion, and it is the headline rates which are more commonly quoted.

<sup>26</sup> Benjamin M Friedman, *The moral consequences of economic growth*. New York, Alfred A Knopf, 2005. For some qualifications to Friedman's argument, see Joseph E Stiglitz, The ethical economist. *Foreign Affairs* (November/December) 2005.

<sup>27</sup> Virmani makes the point that estimates of India's structural growth performance should take into account variations in rainfall, given the historical dependency of economic growth on the monsoon season. Arvind Virmani, *India's economic growth: from socialist rate of growth to bharatiya rate of growth*. ICRIER Working Paper No.122. New Delhi, Indian Council for Research on International Economic Relations, February 2004.

<sup>28</sup> Running parallel to the debate over when to date the start of the reforms is a debate about when India's growth performance broke away from the Hindu rate of growth and climbed on to a new, higher trajectory. Wallack, for example, identifies two likely dates for structural breaks in GDP growth, one in 1974 and one in 1980, and proposes a third possibility in the 1990s. Jessica Seddon Wallack, Structural breaks in Indian macroeconomic data. *Economic and Political Weekly* (11 October) 2003. Virmani estimates that India's long term trend growth rate accelerated from the mid-1970s before reaching a peak around 1995-1997. Arvind Virmani, *Policy regimes, growth and poverty in India. Lessons of government failure and entrepreneurial success*. ICRIER Working Paper No.170. New Delhi, Indian Council for Research on International Economic Relations, October 2005. See also chapter 1 in International Monetary Fund, *India: Selected Issues*. Washington DC, International Monetary Fund, 2005.

<sup>29</sup> For the optimists, see for example Surjit S Bhalla, India: 8% growth is already here. *Business Standard*, 7 January 2006. For a more cautious assessment, see Shankar Acharya, Eight percent growth for ever? *Business Standard*, 23 May 2006.

<sup>30</sup> Suman Bery, Why is the economy doing so well? *Business Standard*, 8 November 2005. Subir Gokarn, Is Indian economy shock-proof? *Business Standard*, 2 January 2006.

<sup>31</sup> Although it should be noted that in some areas, including tariff reduction, the de-reservation of items from the SSI policy, and fiscal initiatives including the introduction of state-wide VAT, there has been continued progress

<sup>32</sup> Angus Deaton and Valerie Kozel, Data and dogma: the great Indian poverty debate. *The World Bank Research Observer* 20 (2) 2005.

<sup>33</sup> Ibid. See also the discussion in Angus Deaton and Jean Dreze, Poverty and inequality in India: a re-examination. *Economic and Political Weekly* 2002.

<sup>34</sup> An example of the former is Surjit S Bhalla, Recounting the poor: poverty in India, 1983-99. *Economic and Political Weekly* 37 (4) 2003. The pessimistic view is on display in Abhijit Sen and Himanshu, Poverty and inequality in India - I.



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*Economic and Political Weekly* 39 (38) 2004. Deaton and Kozel suggest that these two papers can be seen as representing the two poles of the Indian poverty debate. Deaton and Kozel, Data and dogma: the great Indian poverty debate.

<sup>35</sup> Deaton and Kozel, Data and dogma: the great Indian poverty debate. See also Gaurav Datt and Martin Ravallion, Is India's economic growth leaving the poor behind? *Journal of Economic Perspectives* 16 (3) 2002.

<sup>36</sup> This is broadly the methodology followed by Dani Rodrik and Arvind Subramanian, *Why India can grow at 7 percent a year or more: projections and reflections*. IMF Working Paper WP/04/118. Washington DC, International Monetary Fund, July 2004. For a critique of their projections, see Shankar Acharya, India's growth prospects revisited. *Economic and Political Weekly* 39 (41) 2004.

<sup>37</sup> United Nations Population Division, *The world population prospects: the 2004 revision*. New York, United Nations, 2005.

<sup>38</sup> While the 'window of demographic opportunity' has been associated with economic success in East Asia, the experience of some Latin American countries suggests that there is nothing automatic in the process. Siddhartha Mitra and R Nagarajan, Making use of the window of demographic opportunity: an economic perspective. *Economic and Political Weekly* 2005.

<sup>39</sup> This point is emphasised in Acharya, India's growth prospects revisited.

<sup>40</sup> World Bank. *Governance indicators: 1996-2004*. World Bank 2005: <http://www.worldbank.org/wbi/governance/govdata/>.

<sup>41</sup> See especially Rodrik and Subramanian, *Why India can grow at 7 percent a year or more: projections and reflections*.

<sup>42</sup> Vijay Kelkar, *India: on the growth turnpike*. 2004 Narayanan Oration, Australian National University, Canberra, 2004.

<sup>43</sup> World Bank, *Doing business in 2006*. Washington DC, World Bank and International Finance Corporation, 2006.

<sup>44</sup> See also chapter 3 in Thirlwell, *India: the next economic giant*. Neither list of challenges is intended to be exhaustive.

<sup>45</sup> Vijay Joshi, Myth of India's outsourcing boom. *Financial Times*, 16 November 2004. On the decline in employment generation, see also Kirsty McNay, Jeemol Unni and Robert Cassen, Employment, in *Twenty-first century India: population, economy, human development and the environment*. ed. Tim Dyson, Robert Cassen, and Leela Visaria. Oxford, Oxford University Press, 2004.

<sup>46</sup> McKinsey. *The NASSCOM-McKinsey Study 2005*. The study also notes that at present only about 25% of technical graduates and 10-15% of general college graduates are suitable for employment in India's offshore IT and BPO industries, and estimates a potential shortfall of nearly 0.5 million suitably qualified employees by 2010.

<sup>47</sup> On labour market policies see Timothy Besley and Robin Burgess, Can labour regulation hinder economic performance? Evidence from India. *Quarterly Journal of Economics* 119 (1) 2004. Also Government of India, *Economic Survey, 2005-2006*. New Delhi, Ministry of Finance, Government of India, 2006.

<sup>48</sup> Jo Johnson, Flight from risk sparks India's stock fall. *Financial Times*, 22 May 2006. Saikat Chatterjee, Stock rout hurt rupee. *The Wall Street Journal*, 24 May 2006. The Economist, Back to earth. *The Economist*, 25 May 2006.

<sup>49</sup> Wong Keng Siong and Aathira Prasad, India's "twin deficits" - is it different this time? Economics, DBS Group Research, 2 May 2006. Chetan Ahya and Mihir Sheth, *Portfolio flows - the critical macro link*. India Economics,

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<sup>50</sup> Reserve Bank of India, Balance of payments (BoP) developments in 2005-06. RBI Press Release. Mumbai, Reserve Bank of India, 30 June 2006.

<sup>51</sup> The FRBM stipulates annual reductions in the central government's fiscal deficit of 0.3 percentage points of GDP, and annual reductions of 0.5 percentage points of GDP in the revenue deficit. (The revenue or current deficit is the difference between current revenues and current expenditures). The FRBM targets a 3% of GDP overall deficit by 2008/09 and a zero revenue deficit in the same year.

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<sup>53</sup> For an official assessment of India's vulnerability to an external shock see Y V Reddy, Implications of global financial imbalances for the emerging market economies (paper presented at the Round table discussion at the International Symposium organized by the Banque de France. Remarks by Dr Y V Reddy, Governor, Reserve Bank of India, Paris, 4 November 2005).

<sup>54</sup> Cited in Jo Johnson, India gains credibility as an emergent export titan. Financial Times, 29 November 2005.

<sup>55</sup> Chetan Ahya and Mihir Sheth, Infrastructure: changing gears. India Economics, Morgan Stanley, November 2005.

<sup>56</sup> T N Ninan, Are India's infrastructure woes over? Business Standard, 8 July 2006. For a more pessimistic assessment, see for example Jo Johnson, Infrastructure poses threat to India's boom. Financial Times, 12 February 2006.

<sup>57</sup> Kin Bing Wu, Venita Kaul and Deepa Sankar, The quiet revolution. Finance and Development 42 (2) 2005.

<sup>58</sup> Catriona Purfield, Mind the gap - is economic growth in India leaving some states behind? IMF Working Paper WP/06/103. Washington DC, International Monetary Fund, April 2006.

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