

# India

The Indian economy grew by 8.1% in FY2005, according to official estimates. Price pressure has been building as the authorities are unlikely to have the resources to cushion domestic fuel prices from the full extent of fuel import price increases for much longer. On the supply side, growth will continue to be fueled by the opening up of space for private investment. India faces two key policy challenges as the economy undergoes a structural transformation. First, it must continue consolidating its fiscal position. It will have to do so while ensuring both adequate hard infrastructure improvements to support industrial and high-skill services development, and public investment to advance rural productivity and human development. Second, it needs to improve the investment environment by lowering the cost of doing business. Growth rates of 7.6% in FY2006 and 7.8% in FY2007 are forecast. The annual average growth rate over 2006–2010 is unlikely to exceed 8–8.5%.

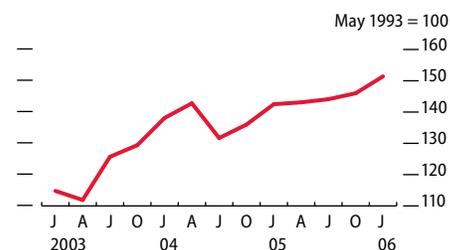
## Economic performance

The Indian economy achieved a gross domestic product (GDP) growth rate of 8.1% in FY2005 (1 April 2005–31 March 2006). On the expenditure side, the economy was lifted by broad-based domestic demand growth. While aggregate expenditure data have not yet been released, consumption growth is estimated at 8.0%, driven by a good monsoon, which supported rural incomes. Gross fixed capital formation grew at an estimated rate of 8.5%, reflecting rising investor confidence (Figure 2.16.1) in the face of strongly entrenched demand growth and as a consequence of the expansion in credit and companies' initial public offerings. The rate of gross fixed capital formation in GDP has increased to 25.9% and that of gross domestic capital formation to 30.1%. Meanwhile, public consumption grew less rapidly than GDP as the central Government set the target to reduce its overall deficit to 4.3% of GDP for FY2005. The Government has announced that it expects to have surpassed this target, reducing the deficit to 4.1% of GDP. The boom in domestic private demand, combined with rising oil import costs, widened the trade deficit and pushed the current account further into a deficit equivalent to 2.5% of GDP.

Figure 2.16.2 shows the decomposition of growth by sector. The importance of the services sector was reaffirmed in FY2005. This sector accounts for 54% of economic output and grew by an unprecedented 9.8%. This was mainly the result of significant increases in the demand for domestic services. The export-oriented information technology (IT) and business process outsourcing (BPO) sectors also continue to perform very well due to growing international demand for skilled, low-cost, English-speaking Indian workers, although these sectors constitute only a small portion of total services output. Indian competitiveness in IT and BPO has been aided by substantial investment in telecommunications infrastructure and the phased liberalization of the communications sector.

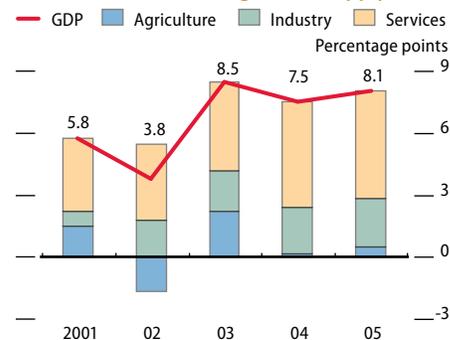
The industry sector, which accounts for approximately 26% of GDP,

2.16.1 Business confidence index



Source: National Council for Applied Economic Research, *Business Expectations Survey*, various issues, New Delhi.

2.16.2 Contributions to growth (supply)



Source: Central Statistical Organization, available: <http://mospi.nic.in>, downloaded 10 March 2006.

grew by 9.0%. This strong performance was driven by manufacturing, which accounts for about four fifths of industrial output. Textiles, basic metals and alloys, and transport equipment were the fastest-growing product categories. As discussed in Part 1 of this *Asian Development Outlook*, India has benefited from the ending of the Agreement on Textiles and Clothing, with exports of clothing and textile intermediates to the United States rising by 34% and 22%, respectively, in value terms in calendar 2005. India's exports of clothing and textiles to the European Union increased by 16% in value terms in this period, but by under 5% in volume terms, reflecting a significant improvement in unit values. These increases, however, partly reflect the shift in trading patterns from formally nonquota to quota countries. Growth in the transport equipment sector reflects, in part, the rapid emergence of Tamil Nadu state as an international destination for automobile component manufacturing.

The agriculture sector, with a share of about 20% of GDP, registered only a 2.3% growth rate, despite a favorable monsoon, reflecting continuing difficulties in raising productivity. These difficulties have been linked to increasing problems with irrigation and surface water management, as well as with persistent structural weakness in the markets for rural credit and for crop insurance.

Investor concern over India's infrastructure deficit continued to mount in 2005, especially with regard to a shortage of power generation capacity, stemming in part from continued financial problems at many state electricity boards. Urban planning, too, remains worrisome with constraints tightening in transport, sanitation, hotel accommodation, and other facilities usually required by investors.

High global oil prices might have been expected to damp growth in FY2005. The reasons why they have not are structurally revealing. First, as shown in Table 2.16.1, the economy, when measured in purchasing power parity terms, is not especially intensive in its consumption of energy. Moreover, much of this energy—the electrical component—is derived from domestically mined coal and hydropower (Figure 2.16.3). Second, as depicted in Figure 2.16.2 above, India's growth over the past few years has been driven primarily by the services sector and, with the exception of transport, this sector (particularly its high-growth components such as IT, retailing, and BPO) is relatively oil un-intensive. Third, since 2003, the central Government has shielded the domestic economy from international oil price increases by controlling retail fuel prices, especially those for cooking fuel (liquefied petroleum gas [LPG]) and kerosene. The burden of this implicit subsidy, which could approach 1% of GDP in FY2005, falls predominantly on state-owned oil production and marketing companies. It is likely that the cost of these subsidies will eventually be reduced, or shifted back to the fiscal budget, to ensure the financial health of these companies. Fourth, manufacturing goods inflation has been falling (Figure 2.16.4), perhaps indicating productivity increases and competitive pressures, thus counteracting inflationary pressure from higher fuel prices.

According to the preliminary estimates presented by the finance minister in the February 2006 budget speech, the overall federal fiscal deficit (including adjustments to capital funds) fell to 4.1% of GDP in FY2005. This reflects stronger current revenues, which—according to

### 2.16.1 Total primary energy supply, 2003

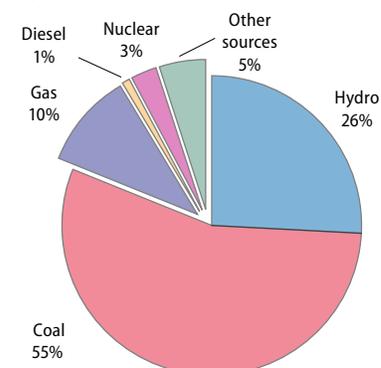
	Ratio to GDP
Middle East	0.38
OECD	0.19
Latin America	0.16
World	0.21
Non-OECD Europe	0.27
Asia, excl. PRC	0.19
Africa	0.30
PRC	0.23
Former Soviet Union	0.51
India	0.19

OECD = Organisation for Economic Co-operation and Development; PRC = People's Republic of China.

Notes: Total primary energy supply is measured in tons of oil equivalent. GDP is measured in 2000 purchasing power parity terms.

Source: International Energy Agency, 2005, *Key World Energy Statistics*, available: <http://www.iea.org>, downloaded 10 March 2006.

### 2.16.3 Installed power generation capacity, by fuel source

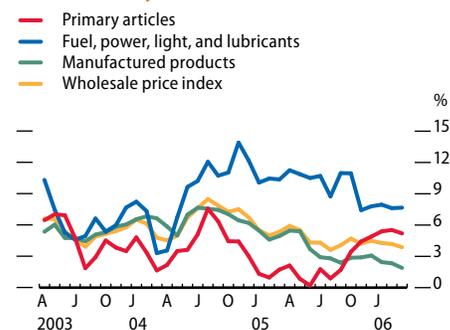


Source: Ministry of Power, available: <http://powermin.nic.in/>, downloaded 7 March 2006.

estimates from the Reserve Bank of India—rose by roughly 0.4% of GDP, from 9.7% in FY2004. Meanwhile, interest payments on central government debt fell to 3.9% of GDP, continuing a downward trend begun in FY2002. Aware of the need to reduce the debt burden and create fiscal space for much-needed infrastructure investments, the Government has announced a deficit target of 3.8% of GDP for FY2006. As detailed in Box 2.16.1, the budget does not revise many tax rates upward, and introduces no new taxes. In effect, this target is to be achieved primarily on the strength of higher economic growth. Growth has two effects on the deficit-to-GDP ratio, assuming that fiscal expenditures are invariant to growth: first it increases the tax base, raising revenues; and second, when GDP is higher, a larger deficit can be accommodated without the deficit-to-GDP ratio exceeding its target level. The Government also expects increasing compliance as tax schedules have been lowered and simplified somewhat.

Other potential areas for fiscal tightening include further privatization of inefficient public companies and reductions in government payrolls. Both areas are politically difficult, yet improvements can be discerned. First, a standoff over the privatization of the management of Mumbai and

#### 2.16.4 Monthly inflation



Source: Reserve Bank of India, Database on Indian Economy, available: <https://cdbmsi.reservebank.org.in/cdbmsi/servlet/login/>, downloaded 24 March 2006.

#### 2.16.1 Highlights of the FY2006 federal budget

The federal budget for FY2006 was prepared against a background of strong growth, moderate inflation, a rising ratio of tax to gross domestic product (GDP), and a comfortable foreign exchange reserves position. The main challenge tackled in the budget is the mobilization of resources for spending on social programs and on urban and rural infrastructure. This year's budget has not been used as a tool for initiating fundamental reforms. Rather, they are likely to be introduced incrementally over the next year.

Modest inflation and high growth have provided significant fiscal space to increase spending while the Government pursues fiscal consolidation, with both the revenue and fiscal deficits targeted to grow less quickly than GDP in FY2006. Improvements are expected to flow from tax collections, with the gross tax revenue-to-GDP ratio projected to rise from 10.5% in FY2005 to 11.2% in FY2006, while expenditures keep pace with GDP growth. Consequently, deficit indicators for FY2006 are in line with the Fiscal Responsibility and Budget Management road map, which envisages an annual reduction of at least 0.3 percentage points in the fiscal deficit. The overall fiscal deficit as a share of GDP is projected to decline to 3.8% in FY2006 from 4.1% in FY2005.

Planned expenditures target implementation of some of the goals of the Common Minimum Programme—the vision statement of the current Government—focusing on social sector programs in the areas of education, health, rural employment, and a midday meal scheme. A National Rural Employment Guarantee Scheme also

offers at least 100 days of work each year to at least one member of every family. The total allocation for these programs has been increased by 43.2% to Rs500 billion (approximately 1.4% of GDP) in FY2006. Meanwhile, the Bharat Nirman (Development of India) Program, which targets six main elements of rural infrastructure, has seen its budget raised by 54%, to around 0.6% of GDP. Finally, to farmers the Government has offered debt relief, and a program of short-term credit lines of just under \$6,800 at a 7% rate of interest.

Acknowledging the infrastructure deficit, the FY2006 budget speech emphasizes the speed with which existing capital projects will be implemented, and in keeping with the emphasis on private infrastructure development, announces modest increases in infrastructure spending.

The budget proposes no new taxes. Rather, it attempts to improve compliance and collection efficiency, and to rationalize indirect taxes, mainly by lowering rates and slowly reducing variations in marginal tax rates. Thus, it proposes reductions in customs and excise duties on several products, while raising the service tax rate by 2 percentage points with some extension of coverage. The budget envisages rationalizing rates of excise taxes, in the process reducing rates on several products. It does not change tax rates on personal income and corporate profits.

Overall, the federal budget fares reasonably well in terms of containing the deficit, moving slowly but surely toward a less distortionary tax regime, and allocating resources to much-needed infrastructure.

Delhi airports was resolved in February 2006, in favor of privatization. This outcome appears to have renewed the drive of reformers, and was followed by an announcement of plans to merge India's two national airlines and sell up to 20% of their shares via an initial public offering. Second, as shown in Figure 2.16.5, the number of public employees has stopped increasing, with obvious fiscal benefits.

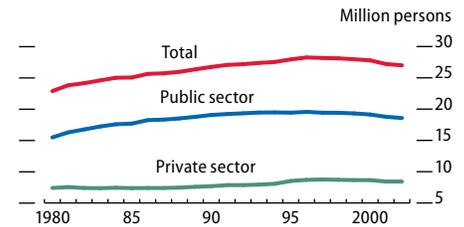
When the accounts of the state governments are combined with the federal account, the consolidated overall fiscal deficit approaches 7.6% of GDP. Many states have substantial accrued levels of debt (the International Monetary Fund estimates that the combined value of states' debt is equal to 33% of national GDP), the interest burden of which is substantial. Many states have also initiated serious fiscal consolidation measures, and enacted fiscal responsibility acts. All of these measures have helped in achieving a lower consolidated fiscal deficit of 7.6% of GDP in FY2005. In the interim, however, state deficits will continue to have implications for the sharing of resources between federal and state governments. The introduction of a value-added tax (VAT) in April 2005 (the proceeds of which accrue to state governments) has already increased revenue collections in some states—a result that was only expected one or two years from now. The introduction of the VAT is an important step, as it attempts to simplify and eventually harmonize a complex mix of state tax rates across all states. Significant work remains to be done to improve VAT implementation and to fully harmonize VAT rates across states.

As depicted in Figure 2.16.4, the pace of wholesale price inflation has actually dropped off a little in FY2005, with prices rising by 4.2% year on year to February 2006. While the wholesale fuel price index, which has a 14.2% weight in the overall wholesale price index, registered growth of 7.6% year on year to February 2006, the rate of inflation in manufactures (with a 63.8% weight in the overall wholesale price index) fell to 2.3%, perhaps reflecting productivity growth and competitive pressure. Meanwhile, primary product prices edged up in the second half of FY2005, driven essentially by food prices.

Monetary policy remained relatively accommodative in early FY2005 (Figure 2.16.6), even as international interest rates began to rise. The Reserve Bank of India (RBI) left its reverse repo interest rate at 5.00%, after raising it in April 2005 from 4.75%, its lowest level for many years. However, accommodative monetary policy and the deteriorating trade balance put slight downward pressure on the rupee, which slid slowly between July and December 2005 (Figure 2.16.7). The RBI raised the reverse repo to 5.25% in October 2005 and again to 5.50% in January 2006, after which the rupee regained its value and stabilized at just above 44 rupees (Rs) to the dollar. This tightening of rates was presented by the RBI as a necessary response to growing expectations of inflation.

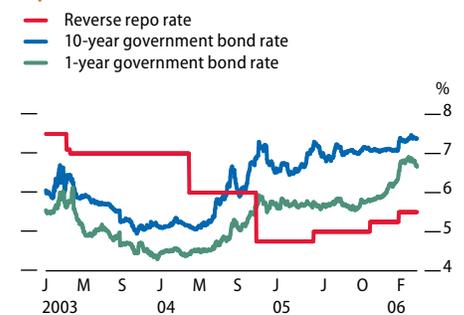
Despite these concerns, capital inflows in 2005, particularly in the area of portfolio investment (Figure 2.16.8), were adequate to offset the growing current account deficit, and foreign reserves grew in CY2005, albeit much more slowly than they have subsequently. Portfolio investment has not just grown in absolute terms, but also in relation to India's total foreign exchange reserves. Given the potential volatility of these flows, this is causing some concern, and points to the need to improve the environment for foreign direct investment (FDI).

### 2.16.5 Organized sector employment



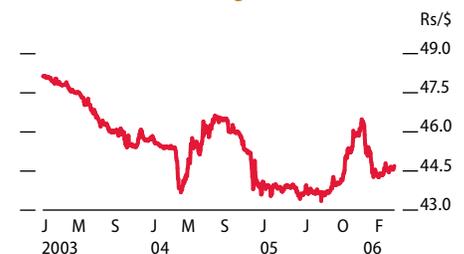
Source: Reserve Bank of India, *Handbook of Statistics on Indian Economy*, available at: <http://rbidocs.rbi.org.in/rdocs/Publications/DOCs/65874.xls>, downloaded 10 March 2006.

### 2.16.6 Government bond and reverse repo rates



Source: Datastream, downloaded 24 March 2006.

### 2.16.7 Nominal exchange rate



Source: Datastream, downloaded on 24 March 2006.

The equity markets rallied strongly in FY2005. The Bombay Stock Exchange's Sensitivity Index (SENSEX) crossed the 10,000 mark in February 2006 and the 11,000 mark in March. The rally was broad based across sectors and is often attributed to strong fundamentals of the economy and large purchases by mutual funds and international investors. Notwithstanding the support from the real economy, some observers are worried about the relatively high growth of potentially speculative portfolio investment, and the RBI has urged investors to exercise caution.

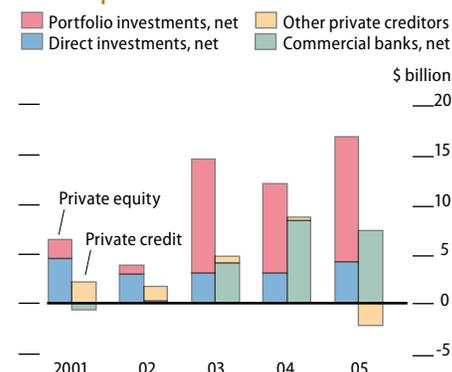
Demand for bank credit by the commercial sector has grown strongly in FY2005. However, deposits have not kept pace with credit growth. Banks have now started raising their deposit rates in response to this and perhaps, also, to firming RBI policy rates. Average lending rates have also risen, though prime lending rates remain unchanged. The growth in bank credit has been accompanied by changes in the composition of loan portfolios to include higher-yield, though riskier, loans. For example, consumer and mortgage lending is on the rise. Industrial corporations, historically large and relatively secure customers for bank credit, are now raising more finance directly in capital markets. The higher spread between prime and average lending rates also implies that at least some of this risk is being priced in.

Although India lacks good current labor market indicators, the informal signs are of a clear tightening in urban markets, which is consistent with the recent strong growth performance. Similarly, indirect evidence suggests that wages are rising as well. A recent Asian Development Bank study has shown average urban real wages in India rising over the past two decades, using data from successive National Sample Surveys. This trend is driven almost exclusively by growth in the highest quintile of wage distribution, while wages in the bottom quintile have moved up only slightly. Informal indications are that this trend toward growing inequality may have strengthened in recent years.

## Economic outlook

The economic forecast for FY2006 and FY2007 makes four assumptions. First, gradual monetary tightening will be seen in most of 2006, as the RBI seeks to prevent rising world oil prices from translating into inflationary expectations. Second, the Government will follow the recommendations of its Committee on Pricing and Taxation of Petroleum Products (CPTPP). Motivated by the deterioration in the accounts of the state-owned oil companies, the Committee has recommended that retail prices of gasoline and diesel be raised to reflect international prices, and similarly, that subsidies on LPG and kerosene be eliminated for everyone except those consumers below the poverty line (as determined by the Planning Commission). This would eliminate roughly 40% of the quasi-fiscal subsidy cost of the LPG and kerosene subsidy, and the entire gasoline and diesel subsidy cost. The Committee has recommended that the Government fully and explicitly reflect the remaining subsidy on the fiscal account, as soon as possible. It is therefore assumed that most of these fuel price increases will be phased in by the middle of FY2007. The third assumption is an average monsoon. Finally, reasonably decisive action to improve both urban planning and incentives for private expansion of physical

### 2.16.8 Capital flows



Source: The Institute of International Finance, Inc., available: <http://www.iif.com/emr/data.quagga>, downloaded 15 March 2006.

### 2.16.2 Selected economic indicators

	2006	2007
GDP growth	7.6	7.8
Wholesale price inflation	5.5	5.0
Current account balance (% of GDP)	-3.0	-3.3

Source: Staff estimates.

infrastructure are also assumed, including headway toward expanding power supplies and improving the power industry's financial efficiency.

### Prospects for FY2006 and FY2007

On the basis of these assumptions, economic growth is forecast at 7.6% in FY2006 and 7.8% in FY2007 (Figure 2.16.9), slightly below the expected medium-term rate of growth. Growth, particularly in consumption and investment, will be held back by the fuel price adjustment process. Consumption growth is forecast to fall to slightly below the FY2005 rate, which was boosted by a better than average monsoon. Rising interest rates will have some modest negative effects on investment. The fuel price increases are likely to boost inflation, as they filter through to prices of manufactured goods and transportation costs. In this context, wholesale price inflation is put at 5.5% in FY2006 and 5.0% in FY2007 (Figure 2.16.10).

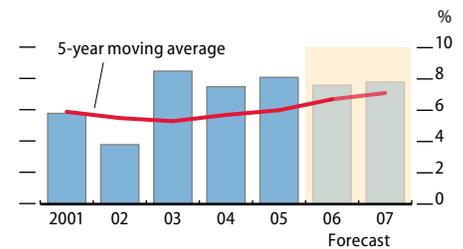
On the supply side, industrial growth is seen slowing slightly in FY2006 to 8.1%, reflecting the net influences of fuel price adjustments and high demand driven by buoyant investment. It is expected to pick up to 8.5% in 2007, presuming the price adjustments are completed. The services sector (excluding transport) will be relatively less affected by the adjustments, growing at an average of 9.3% over the next 2 years. Agriculture will continue to grow at 2.1%. The slight pickup, particularly in industry, in 2007 will reflect the winding-down of the fuel price adjustment process.

On the strength of growing domestic demand (driven mainly by investment) and of high world oil prices, the trade deficit is expected to grow faster than GDP. Fuel, manufacturing intermediates, and consumer durables are likely to be the biggest contributors to import growth. Conversely, exports of services and growth in remittances will buoy the current account, which is nevertheless expected to slip further into deficit, to 3.0% of GDP in FY2006 and 3.3% in FY2007 (Figure 2.16.11).

The central Government should be able to come close to achieving its fiscal target in FY2006, lowering the deficit to 3.8% of GDP. Given the robust economic growth forecast, the Government's assumption that revenues will rise around 15% year on year in FY2006 is plausible, though this will be difficult to achieve. This result would depend not just upon growth, but also on continued reductions in federal assistance to states as VAT becomes established and boosts state revenues, and on the positive effects of lower tax rates on compliance outweighing their direct fiscal consequences. Spending will also rise.

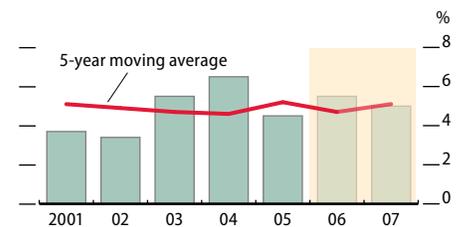
The above outlook faces four key risks. First, while the economy is likely to weather the transition to the new fuel-price regime well, it is possible that economic uncertainty involved could result in inflationary pressures. A second—related—risk is that, if the capital and closely linked real-estate markets overheat on the strength of strong portfolio investment inflows, and these pressures unwind in a disorderly fashion, then investor and consumer confidence will be shaken. Third, as usual, poor monsoons would severely affect the rural income base. Finally, the assumption that the CPTPP recommendations on fuel prices will be largely implemented by mid-FY2007 is perhaps courageous. Failure to follow them would jeopardize the fiscal target, but would also render the above forecasts for inflation high.

### 2.16.9 GDP growth



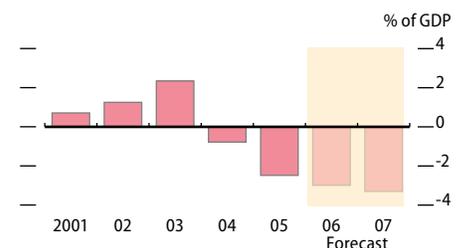
Sources: Central Statistical Organization, available: [http://mospi.nic.in/31jano6\\_s3\\_1.htm](http://mospi.nic.in/31jano6_s3_1.htm), downloaded 3 February 2006; staff estimates.

### 2.16.10 Annual inflation



Sources: Reserve Bank of India Database on Indian Economy, available: <https://cdbmsi.reservebank.org.in/cdbmsi/servlet/login/>, downloaded 6 February 2006; staff estimates.

### 2.16.11 Current account balance



Sources: Reserve Bank of India Database on Indian Economy, available: <https://cdbmsi.reservebank.org.in/cdbmsi/servlet/login/>, downloaded 27 January 2006; staff estimates.

### Medium-term outlook

The growth rate of GDP for 2006–2010 is estimated at around 8–8.5% (Box 2.16.2). The efficiency of investment in the economy has grown steadily, as private investors have been allowed to invest in more sectors of the economy, and public investment projects have become more selective and better managed. Even lifting the rate of growth to this level, and thus maintaining the upward trend in the growth rate, will require carefully managed policy reforms and public budgeting, as the economy faces two main interrelated challenges in the next few years. First, gross fixed capital formation has to increase beyond an already healthy 26% of GDP, and improvements in physical infrastructure will be crucial. However, more capital alone is not enough. Second, a structural transformation of the economy, together with a less distorted investment environment, is required so as to stimulate productivity increases through the process of shifting resources from the less to the more efficient sectors.

Turning to physical infrastructure first, it is clear that the economy needs much more and much better basic infrastructure, as its paucity continues to restrain both domestic and foreign private investment. Power supplies need to be improved, as do roads, ports, and railways. The Government recognizes this. Indeed, the Committee on Infrastructure has estimated the investment needed for ports, national highways, and airports at Rs2,620 billion (nearly 8% of a single year's GDP) over the next 5–7 years.

Given fiscal constraints, public private partnerships (PPPs) will have to play a larger role in infrastructure financing, but this will require an improved legal and regulatory framework. The federal Government has announced two schemes along these lines. First, for projects that are not financially viable, the Government has proposed a “viability gap” funding scheme to provide grants covering up to 20% of the capital investment cost of approved projects. Second, the Government established the India Infrastructure Finance Company Limited (IIFCL) in January 2006 to help finance projects that are financially viable, but that cannot raise sufficient long-term debt. IIFCL is authorized to assist via loans to projects, not exceeding 20% of the cost of the project, and through agreements to refinance loans of a tenor of at least 5 years. Such policy interventions are necessary, because despite its long-term infrastructure financing needs, India lacks a market for pricing and raising private long-term debt. The scheme effectively leverages the Government's finances to cope with this missing market. However, depending on how it is implemented, the scheme has the potential to accrue large public contingent liabilities that would not appear in the fiscal budget.

FDI can also be a means of bridging the gap between the huge investment requirements and domestic savings. An official estimate suggests that the economy can absorb an average of \$30 billion of infrastructure FDI alone in each of the next 5 years—in contrast to the current less than \$5 billion a year in total FDI, which implies that potential foreign direct investors still face significant hurdles. In addition to having to work without a well-developed market for long-term debt, foreign investors also face difficulties in hedging long-term currency risk.

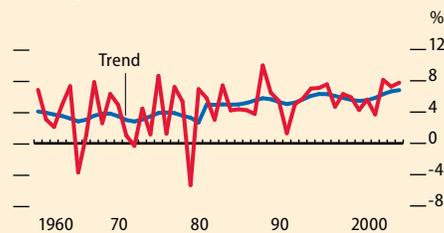
The country's overall investment environment has to be strengthened. India scores very low in many regards on the World Bank's Doing Business survey. For example, entrepreneurs could recently expect to go through 11

## 2.16.2 From the Hindu rate of growth to 10%: What will it take?

In response to an average growth rate of about 8% during 2003–2005, it has been argued that conditions are ripe for India to achieve 9–10% gross domestic product (GDP) growth during the next few years. India has undergone 15 years of economic reforms, savings and investment rates have increased, and the country can still enjoy the benefits of the demographic dividend. Although many things remain to be accomplished, a growth rate of 9–10%, some argue, appears feasible. Is this true? To shed light on this question it is useful to consider, first, past growth performance and its drivers, and then to perform accounting consistency checks.

Box figure 1 shows the actual GDP growth rate for 1960–2005 and the trend growth rate. A number of features are worth mentioning. First, India achieved high

1 GDP growth



Notes: Growth rates are logarithmic. Trend growth rates are calculated using a Hodrick-Prescott filter.  
Sources: Reserve Bank of India, *Handbook of Statistics on Indian Economy*, available: <http://rbidocs.rbi.org.in/rdocs/Publications/DOCs/65874.xls>, downloaded 24 March 2006; staff estimates.

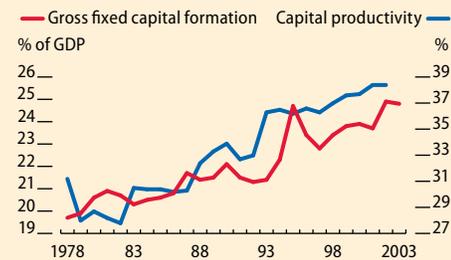
growth rates, of 7% and higher, on several occasions in past decades. Second, it seems that what characterized growth rates for decades until the early 1980s was a large degree of volatility, including contractions in 1965, 1972, and 1979. The first two of these coincided with wars with Pakistan, while the 1979 contraction coincided with an international oil shock. Agricultural output also contracted in all of these years. Since 1979 India has not had a single year of economic contraction. Thus, India's infamous "Hindu rate of growth" of the 1960s and 1970s reflects high volatility, not just consistently low GDP growth rates. Third, the trend growth rate has increased steadily from about 4% between the 1960s and early 1980s up to about 6.5% today.

The reduction in the volatility of the GDP growth rate does not simply reflect a decrease in incidents that negatively affected the economy. It also reflects the structural shift of economic activity from agriculture into services. Between 1960 and 2005, the services sector grew at an average annual rate of 6.1%, compared with 5.6% in industry and 2.6% in agriculture. Accordingly, the share of services in GDP grew from around 34% to 54%, and the share of agriculture in output declined from 47% to 20%. As the agricultural growth rate is more volatile than that

of either industry or services, it is not surprising that the overall growth rate has become more stable.

Economic growth has also benefited from three additional, related factors. First, the share of gross fixed capital formation in GDP, shown in Box figure 2, has increased steadily from about 10% in the 1950s to 20% in the 1970s and 1980s, and to around 25% in recent

2 Gross fixed capital formation and capital productivity

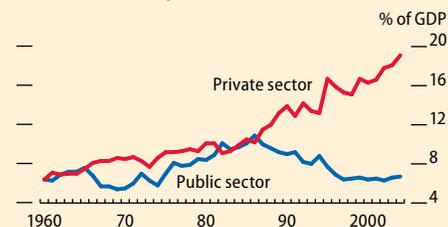


Sources: [http://cama.anu.edu.au/Working%20Papers/Papers/Fan\\_Felipe\\_222005.pdf](http://cama.anu.edu.au/Working%20Papers/Papers/Fan_Felipe_222005.pdf), downloaded 10 March 2006; Reserve Bank of India, *Handbook of Statistics on Indian Economy*, available: <http://rbidocs.rbi.org.in/rdocs/Publications/DOCs/65874.xls>, downloaded 24 March 2006.

years. Second, capital productivity (the ratio of GDP to the capital stock—also shown in Box figure 2) has also increased significantly from about 0.3 (30%) in the late 1970s and early 1980s, to about 0.4 (40%) in 2002. This is indeed a salient characteristic of the Indian economy.<sup>1</sup> The increase in the share of capital formation, together with the increase in capital productivity, explains the increase in India's rate of capital accumulation.<sup>2</sup>

Third, the composition of investment has changed, as Box figure 3 shows. Between 1975 and the mid-1980s, public and private investment (as a percentage of GDP)

3 Gross fixed capital formation



Source: Ministry of Finance, *Economic Survey 2005-2006*, available: <http://indiabudget.nic.in/es2005-06/chapt2006/tab15.pdf>, downloaded 24 March 2006.

were increasing and were not significantly different; however, after 1987 the share of public investment started declining, while that of private investment continued increasing. Today, the share of private investment in GDP is about three times that of public investment. The private investment pickup over the past 15 years reflects accelerating reform efforts, including privatizations, less

onerous licensing and zoning requirements, lowering of trade barriers, simplification of international investment rules, and the shortening of lists of industries reserved for small enterprises. Efforts to improve fiscal performance, which have moved to the forefront of the Government's economic agenda, have also played a key role in slowing the rate of public investment. These trends, taken together, are consistent with the view that increasing space for the private sector increases the efficiency of investment, which is vital for sustaining growth. Moreover, the public sector has narrowed its investment focus toward public and quasi-public goods, and appears to have improved the quality of its investments. Time and cost overruns of central sector projects seem to have declined substantially.

Finally, can India keep the growth momentum and even increase the growth rate of GDP to about 9–10% during 2006–2010? Certainly, achieving this over a single year is possible (e.g., due to an excellent monsoon). The question is whether this rate can be achieved and maintained for successive years. Assuming, optimistically, that India could raise its share of gross fixed capital formation from the current 26% of GDP to about 30%, and that capital productivity remains at about 0.4, the growth rate of the capital stock would rise by about 2.5 percentage points, to 7% a year. This would consequently raise the contribution of capital accumulation to GDP growth by about 1.10%, to 3.15 percentage points, given a capital share of 0.45. Assuming, also optimistically, that employment grows by about 2.5% a year, faster than in previous decades,

the overall contribution of employment growth to GDP growth would be about 1.37%. Using these figures in a simple growth-accounting exercise leads to the conclusion that the average GDP growth rate in 2006–2010 is unlikely to exceed 8–8.5%.<sup>3</sup> Achieving an average growth rate of 9–10% would require a significantly higher share of capital formation in GDP, of about 40%. Moreover, absorbing this extra investment would itself require substantial structural changes in the economy that are difficult to envisage in the next 5 years. The difficulty of raising and maintaining growth rates above the already remarkable 8% should thus not be underestimated.

- 1 See Emma X. Fan and Jesus Felipe. 2005. "The Diverging Patterns of Profitability, Investment, and Growth in China and India, 1980-2003." Available: [http://cama.anu.edu.au/Working%20Papers/Papers/Fan\\_Felipe\\_222005.pdf](http://cama.anu.edu.au/Working%20Papers/Papers/Fan_Felipe_222005.pdf).
- 2 The growth rate of the capital stock in net terms equals the share of gross fixed capital formation in GDP multiplied by the productivity of capital, minus the depreciation rate.
- 3 The GDP growth rate is computed as the sum of the weighted growth rates of the capital stock, employment, real wages, and real profits, where the weight given to the growth rates of capital stock and real profits is the share of capital in GDP (0.45); and the weight given to the growth rates of employment and real wages is the share of labor in GDP (0.55). In this case, the sum of the contributions of capital and labor to overall GDP growth is therefore 4.5% (= 3.15% + 1.37%). The rest is the contribution of the growth rate of the wage rate and of the profit rate, each weighted by the corresponding factor shares. See footnote 1; as explained there, it will be difficult for these two variables to grow much faster than in the past, when their combined contribution to GDP growth was about 3.5%.

steps to launch a business, taking over 71 days. The number of steps was 7.9 for South Asia (already much higher than the OECD average), and 35.3 days for South Asia. Securing operating permits, the costs and procedures of importing or exporting a standardized shipment of goods, bankruptcy-resolution costs and time frames, as well as enforcing commercial contracts are all rated slightly worse for India than the South Asian average.

Turning next to the uses of such investment, the dual imperatives for the economy are to improve conditions in agriculture and, simultaneously, expand industry fast. Nearly two thirds of the labor force are employed in agriculture, a sector that produces less than one fifth of GDP, and has seen yields slip in recent years. India needs to boost agricultural growth, through diversification and development of agroprocessing, and critically, through improvements in productivity. Low productivity growth depresses employment generation and wages in agriculture; low wages and abundant labor limit incentives for mechanization, which in turn restrains productivity growth. Agricultural development will not only benefit farmers and a large section of the rural poor, but will also boost overall economic growth through backward and forward linkages.

Availability and management of water are among the most important constraints on agricultural productivity and this area has been neglected for lack of resources, especially among state governments, and because of

the diffusion of responsibilities over several different departments in the federal Government. Agricultural diversification needs to be supported by the evolution of suitable market institutions. It requires much stronger linkages between farmers (and therefore their production decisions) and buyers, who reflect the specific needs of the market. Strengthening research and development (R&D) and improving post-harvest management technologies—particularly storage—will give a further boost to productivity. Rapid growth of agroprocessing industries close to agricultural production centers will be necessary to absorb surplus labor without moving people from rural to urban areas.

India also needs to devise feasible strategies for sustained industrial growth (manufacturing, also in need of further investment, represents just over 20% of GDP). The secondary sector needs to grow rapidly to boost the overall growth rate, and to generate much-needed employment for the existing labor force and new entrants—predominantly teenagers and women. In several industrial activities, firms have integrated into global supply chains and have achieved rapid export growth. Pharmaceutical companies—a sunrise sector—have, during the last decade, adopted a strategy of R&D-based innovative growth, which could allow the industry to move beyond its current mainstay of generic drug manufacture. In addition to manufacturing drugs, the pharmaceutical industry offers significant potential for handling outsourced clinical research, particularly in the area of biotechnology, and especially since India signed up to the international system of intellectual property rights on 1 January 2005.

Likewise, BPO will continue to grow rapidly. The large number of English-speaking skilled people has made India a major exporter of software services. The good prospects for this sector will depend on companies' capacity to upgrade their services and on whether protectionist tendencies in some industrial countries can be eased. Likewise, prospects since the Agreement on Textiles and Clothing for the domestic textile industry appear healthy, provided that it continues to modernize. This suggests that, with appropriate scale, investment, and technology, it can achieve rapid industrial growth.

While calls for labor market reform in India are common, it is not clear that across-the-board reforms will induce significant employment creation. A few Indian labor laws, most notably the Industrial Relations Act (which requires the Government to authorize closure of any facility employing over 100 people), are responsible for the strongest disincentives to investment in the formal sector. However, as a recent Asian Development Bank study shows, labor laws in practice apply to only the 7% of the labor force working in the formal sector (Figure 2.16.5 above). It would seem that while rationalizing a few of the most damaging laws would indeed be helpful, there are other more significant barriers to investment.

As always, the tenuous consolidated fiscal position is a major risk to the medium-term outlook. Public outlays on critical infrastructure and rural development, or private investment, will be crowded out if the governments are not able to sustain spending discipline in other areas or if tax revenues fall short. A key potential risk is that the recommendations of the federal Pay Commission, which is to review the salaries of public servants, may be more generous than the fiscal target allows (as has happened before).