

India: Priority areas for boosting innovation capacity*

* Extract from Lopez-Claros, Augusto and Mata, Yasmina, “The Innovation Capacity Index: Factors, Policies, and Institutions Driving Country Innovation,” *The Innovation for Development Report 2009–2010*, pp. 42–47.

Viewed in a long-term perspective, India’s recent economic performance has been quite impressive. According to the OECD, GDP per capita has accelerated from 1.2 percent in the 30-year period to 1980 to 7.5 percent currently, a growth rate, which, if sustained, would double income per capita in a decade. This is clearly an important achievement that has brought with it a substantial reduction in the incidence of poverty, from 36 percent in 1994 to some 27 percent by 2005.¹

Inevitably, the global financial crisis has contributed to a deceleration of India’s economic growth in 2008 and 2009, and the emergence of other problems, such as a substantial widening of the budget deficit (see below). However, assuming this to be a temporary phenomenon, the key question for Indian economic policy for the foreseeable future will be what policies will allow it to sustain or, indeed, accelerate its growth performance over the next decade. Just as China has benefited from a massive process of urbanization in the past two decades which has contributed in an important way to its high economic growth rates, India has a similar structural feature: favorable demographics, which is likely to fuel growth. For the next 20 years, the share of the working age population will rise, and India will have to find ways to bring its masses of young people into the mainstream by spending on education and improving the quality of its educational institutions, in order to boost the productivity of its young, particularly the poor.

There has also been a significant improvement in recent years in the quality of India’s policy environment and the degree of sophistication of its private sector. In those areas in which the government has decided to open up participation to the private sector—telecommunications, civil aviation—the response has been impressive. According to the OECD, India’s telecommunications sector has become the third largest in the world. In contrast, in electricity generation, where public enterprises are still dominant, shortages are common, and there is a serious problem of non-payment due to “poor management of distribution enterprises and a failure to eradicate theft” (OECD, 2007). There would thus appear to be wide scope for gains in efficiency in resource allocation in India, with corresponding gains in productivity and economic growth.

India does not do well in the Innovation Capacity Index, with an overall ranking of 85 among 131 countries. Looking at the various pillars of the ICI, India’s worst ranking (94) corresponds to human capital, training, and social inclusion, followed by adoption and use of information and communication technologies (93). To boost its capacity for innovation, policymakers in India will have to address a number of important weaknesses, of which the most important are discussed below. Figure 4 presents the ICI’s top priorities for policy reform for India.

Education and labor market

India continues to have high illiteracy rates—its rank in the ICI on this particular indicator is 110—suggesting that illiteracy still afflicts several hundred million people, not surprisingly a serious blight on innovation capacity. School enrolment rates remain low by international standards, with its rank for secondary school level an unimpressive 94. The scope for improvement in girls’ education is especially intense—the ICI attaches to India a rank of 89 on the gender equity index. Given the wide range of positive payoffs associated with improvements in girls’ education and, more generally, gender equity, much more will have to be done over the longer term to integrate women into the economy, the educational system, and India’s political establishment. India will also have to educate and train its young poor, to enable them to join the labor force with usable skills, particularly in those sectors with potential comparative advantage. There is every expectation that world demand for outsourcing will rise in coming years, reflecting the continued shift of backroom operations associated with further reductions in the cost of communications. For India to be able to take full advantage of these opportunities, it will have to improve the level of skills and training of its workforce. In this respect, it is particularly worrying to see that India suffers from huge inefficiencies in its labor market, with laws governing regular employment contracts much stricter than in many emerging markets, and in virtually all members of the OECD. As noted by the OECD, one major reason for this is “the requirement to obtain government permission to lay off just one worker from manufacturing plants with more than 100 workers.” Not surprisingly, a rigid

labor market will prevent India from deriving the full benefit of its comparative advantage in labor-intensive industries.

A serious fiscal deficit problem

For many years now India has had a serious problem with its public finances. Essentially, it has been running deficits of some 6-10 percent of GDP for the past decade, among the highest in the world. This problem has many dimensions and it is worthwhile to highlight several here. First, India's public debt level, at 83 percent of GDP in 2009, is already very high by international standards; indeed, it is larger than that of Brazil and Argentina, twice that of Turkey, four times that of China, and well over ten times larger than that of Russia, as well as of most OECD countries. Second, with total revenue collection in the neighborhood of 18 percent of GDP (again, extremely low by international standards) due to its very narrow revenue base—the central government collects no more than about 11 percentage points of GDP in taxes—the revenue-to-debt ratio is among the lowest in the world.

In an attempt to bring about some measure of medium-term fiscal adjustment, the government brought into force in 2003 a Fiscal Responsibility Budget Management Act (FRBMA) which established a path of deficit reduction through 2009. The high economic growth rates during the period 2004–07 boosted government revenue and some progress was made in reducing the deficit, but the 2008 financial crisis and the need to respond to the weakening of economic activity through fiscal stimulus means that the deficit in 2009 will be back to some 10 percent of GDP. In any case, the law has generally applied to the central government only, whereas, in fact, a large share of the deficit problem is with the states. Moreover, it does not contain a medium-term debt target that might act as a binding constraint on the public finances. The law also does not establish any penalties or sanctions for departures from the path of fiscal adjustment laid down in the FRBMA. According to the IMF, “despite the apparent consolidation, off-budget activities increased, deadlines to comply with fiscal targets were extended and the fiscal adjustment was not underpinned by expenditure reform.”² India's fiscal situation is, without doubt, a severely limiting constraint on the country's ability to boost its innovation capacity.

A large public debt constrains the ability of the government to allocate greater resources to education and public health, and to improve the country's dilapidated infrastructure, all areas where India, as noted earlier, is lagging behind. The inability of the government to introduce expenditure reform is,

likewise, a major constraint on policies that might seek to direct greater resources to more productivity-enhancing areas. This year, India is spending close to 4 percent of GDP on regressive subsidies on petroleum, diesel, and various other products, a sum roughly equivalent to what it spends on education and health combined. This is a shocking statistic that highlights the significant need to improve the macroeconomic environment.³ Without doubt, the deficit is a drag on the economy. A much lower deficit would have been associated with higher growth rates and higher levels of revenue, which would have boosted the ability of the government to respond to pressing social needs. Not doing business It takes 13 procedures, a total of 30 days at a cost of 70 percent of income per capita to open up a business in India. In the World Bank's *Doing Business Report 2009*, India ranked 121 (among 181 countries) in this indicator, representing a drop of seven places with respect to 2008. Among the 131 countries ranked in the ICI, India has a rank of 100 for the cost of registering property, a rank of 116 for the ease of paying taxes, and a rank of 180 for enforcing contracts. The fact is that bureaucratic red tape and excessive regulation remain serious problems in India, a country afflicted with a pervasive culture of government intervention and control, which adds to business costs, discourages the development of small and medium-sized enterprises, and, given the important role played by entrepreneurship in most forms of innovation, is thus a heavy burden on India's innovative capacity.

¹ This progress notwithstanding, China has grown more quickly than India over the same period and, consequently, has seen much faster reduction in poverty levels, regardless of the poverty line chosen. China has much lower infant mortality, higher life expectancy, and lower illiteracy rates than India.

² International Monetary Fund, 2009b, India: Selected Issues. International Monetary Fund Country Report No. 09/186. June. p. 34.

³ There is yet another dimension to the fiscal deficit problem which will not be addressed here, having to do with the impact of debt financing on the financial system; it is much easier for the banks to lend to the government than to lend to small and medium-sized enterprises, which are so much at the center of the innovation chain in other countries.

Figure 4. India: Top priorities for policy reform

