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Special Commentary

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Will India Reach Its Long-Run Growth Potential?

Executive Summary

In the second of two special reports on the Indian economy, we discuss long-run economic growth prospects in India. From a fundamental perspective, prospects for continued strong economic growth appear favorable. The significant increase in the savings rate that has occurred over the past decade should continue to finance rapid investment spending, and population growth will lead to future increases in the labor force. In theory, India should continue to realize strong economic growth over the next decade or two.

In reality, however, India has a number of significant challenges that it will need to overcome to realize its full growth potential. If not addressed, India's inadequate infrastructure will constrain the country's long-run economic growth rate. In addition, the poor education that much of the citizenry receives, endemic corruption and excessive regulation present problematic factors for doing business in India. Although foreign direct investment (FDI) in India is starting to pick up, FDI and the crucial technology transfer that accompanies it, remains well below levels in China.

The challenges that India faces are significant, but they are not insurmountable, and addressing them is ultimately a political decision. The country started down the reform path two decades ago, but much more needs to be done. Whether India undertakes the reforms necessary for it to reach its full economic potential will depend, at least in part, on political decisions over the next decade or two that are very difficult to predict at this time. India has the potential to eventually become a truly great economic power, but its success is by no means assured.

Strong Input Growth Should Underpin Strong Economic Growth

As we discussed in a recent special report, the Indian economy is growing very rapidly again after its slowdown in 2008–2009.[1] Real GDP rose 8.8 percent in the second quarter of 2010, the strongest year-over-year growth rate since the 2005–2007 period when growth rates between 9 percent and 10 percent were the norm. The major near-term risk for the Indian economy has shifted from insufficient growth to unacceptably high inflation, and we refer interested readers to our earlier report for a more thorough discussion of the country's current cyclical conjuncture. The goal of this report is to consider India's long-term growth prospects, which we analyze via the neo-classical growth model.

[1] **Not only did the deep global recession weigh on GDP growth in India, but the drier-than-normal monsoon last year hurt the agricultural sector that accounts for roughly 15 percent of Indian GDP. See *Indian Economy Booming Again* (Sept. 1, 2010), which is posted at www.wellsfargo.com/economics.**

Long-run economic growth depends on changes in labor input, changes in the capital stock and changes in technology.

The neo-classical growth model has been the workhouse of long-term economic growth analysis since it was developed more than 50 years ago by Nobel laureate Robert Solow.[2] According to the neo-classical growth model, the physical inputs of labor and capital are transformed via technology into output. Therefore, long-run economic growth depends on changes in labor input, which is largely dependent on population growth, and changes in the capital stock, which occurs via investment spending. Because savings finance investment spending, changes in the capital stock depend on savings. In addition, improvements in technology will lead to increases in output, everything else equal.

Long-run growth prospects in India appear to be favorable.

From the perspective of physical inputs, long-run growth prospects in India appear to be favorable. The national savings rate has risen significantly over the past decade, which has financed a marked acceleration in investment spending (Figure 1). Although the national savings rate could obviously recede over the next few years, the experience of Asian nations that have enjoyed rapid economic growth over the past few decades—Japan in the 1950s and 1960s, Korea in the 1970s and 1980s, and China over the past two decades—shows that significant increases in savings rates tend to be secular rather than cyclical. If, as seems likely, India's savings rate remains elevated for a decade or more, then the country's capital stock should continue to rise at a rapid rate, which would be conducive to strong economic growth.

Figure 1

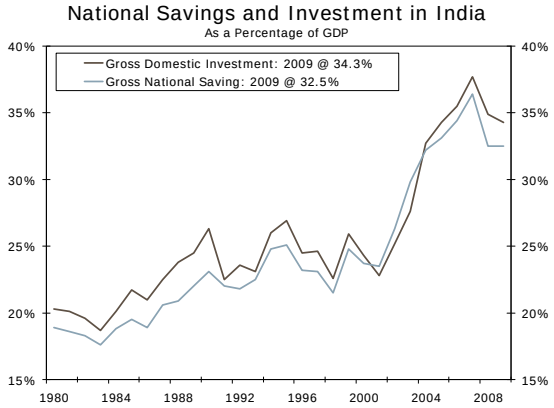
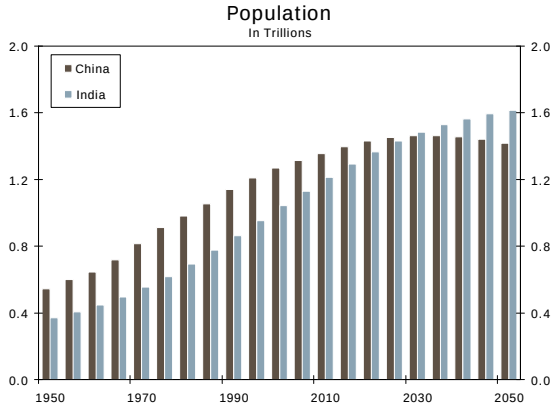


Figure 2



Source: Institute of International Finance, United Nations Population Division and Wells Fargo Securities, LLC

Labor force fundamentals are also supportive of robust economic growth over the long run. In the past decade, the Indian population grew at an average rate of 1.5 percent per annum, and the United Nations projects that the population will continue to rise at an annual average growth rate of roughly 1 percent for the next decade (Figure 2). Although the population of India is smaller than China's, at present, the United Nations projects that India will overtake China as the world's most populous country within 20 years. Due to the long lag involved between birth and labor-force entry, the Indian labor force will continue to grow at a strong rate over the next decade or two. There are about 375 million Indians, roughly 30 percent of the total population, that are younger than 14 years old, at present. The rapid increase in the labor force, in conjunction with a high savings rate, should help to underpin strong economic growth.

India Has Some Formidable Challenges to Overcome

As noted above, changes in technology also play a role in determining long-run economic growth. Although new technologies may be developed in India or, more likely, in foreign countries, technology transfer may not occur rapidly if companies perceive there are barriers to successfully

[2] **See Robert Solow, "A Contribution to the Theory of Economic Growth," *Quarterly Journal of Economics* (February 1956), p. 65-94. For a textbook presentation of the original Solow growth model and its subsequent variants see N. Gregory Mankiw, Macroeconomics (Sixth Edition), Worth Publishers, New York, 2007**

implementing the technology in India. Although solid labor force growth and a high national savings rate should lead to strong long-run economic growth, India may not realize its true growth potential if barriers exist that constrain the ability to transform the physical inputs of labor and capital into output. This section of the report outlines some of the challenges that India faces.

The nation's infrastructure is rather poor.

First, the nation's infrastructure is rather poor. Respondents to a survey conducted by the World Economic Forum (WEF) rank inadequate infrastructure as the most problematic factor for doing business in India, far above other well-known Indian maladies, such as the inefficient government bureaucracy and endemic corruption.[3] Of 133 countries that were rated in terms of quality of infrastructure, India placed 89th on the list, the lowest-ranked BRIC country and in a league with countries, such as Kenya and Tajikistan. Why would a business locate a brand new manufacturing facility, complete with the latest technology, in India if poor infrastructure makes it difficult to get finished products to market?

The bad news is that India has an infrastructure problem. The good news is that the government knows it has a problem, and it is trying to take corrective action. The 11th five-year plan, which spans the fiscal years of 2007 to 2012, called for $500 billion of infrastructure spending, roughly 7 percent of GDP, over that five-year period.[4] Reportedly, the government will be targeting $1 trillion of infrastructure spending in the next five-year plan that will span 2012 to 2017. However, the government does not have the resources to finance all the infrastructure spending it is planning, so it must rely on the private sector for a significant portion—30 percent in the current five-year plan—of the overall target, making realization of the target far from guaranteed.

The burden of excessive regulation also complicates the ease of doing business in India.

Not only is inadequate infrastructure a major challenge for India, but the burden of excessive regulation, which is a legacy of the country's socialist past, also complicates the ease of doing business in India. Especially noteworthy are "restrictive labor market regulations," which respondents to the WEF survey rate among the top-five most problematic factors for doing business in India. In a ranking of countries that measures the ease of hiring and firing workers, India placed in the bottom fourth of 133 countries. That is, the labor market in India is impeded by regulations. On average, a company must pay more than a year's wages when it wants to displace a worker, which may cause many businesses to hesitate to hire additional employees.

The quality of primary education in India is ranked below the global average.

Excessive regulations further impair a labor market that may not be adequately supplied by educated workers. Although nearly 90 percent of the country's children are enrolled in primary school, India spends only 3.2 percent of gross national income on primary education, which places it in the bottom third of the 128 countries that are ranked by expenditure.[5] Little wonder that the quality of primary education in India is ranked below the global average. The enrollment rate in secondary schools is only 55 percent, and it falls to 12 percent for tertiary education. That said, the country does score well in terms of the quality of math and science education.

Corruption is a major problem in India.

Finally, as noted above, corruption is a major problem in India. As a high-profile example, the preparations for the Commonwealth Games, which India had to scramble to complete by the games' kick-off on Oct. 3, have been dogged by allegations of corruption. The result has been budgetary overruns and shoddy workmanship. Not only do India's difficulties preparing for the games stand in marked contrast to China's flawless performance in the 2008 Olympics, but it highlights the endemic nature of corruption in the country. Indeed, corruption was ranked as the third-highest problematic factor for doing business in the WEF survey. Although corruption is not absent in China, it is not seen as problematic in that country as it is in India. Everything else equal, where would a foreign company rather expand operations? Would they rather expand in corruption-rife India or in China, where the problem is not perceived as bad?

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[3] **See *The Global Competitiveness Report 2009-2010*, World Economic Forum, 2010.**

[4] **Infrastructure is defined as spending on electricity generation, telecommunications, roads and bridges, railways, ports, airports, irrigation, water supply and sanitation, storage and gas distribution facilities. See Eleventh 5-Year Plan 2007-2012, Planning Commission of India, 2008.**

[5] **In the American context, primary education would be considered to be elementary school. "Secondary" education would be middle school and high school, and tertiary education would be college.**

Will India Be Able to Create the "Right" Jobs?

Much has been made over the past decade or so about the business process outsourcing/information technology (BPO/IT) industry in India. According to NASSCOM, revenue of the BPO/IT sector is approximately $70 billion, at present, nearly 6 percent of Indian GDP, and there are currently 2.3 million people employed in the sector.[6] However, India has millions, if not hundreds of millions, of poorly educated individuals who have little chance of working in the BPO sector, where computer and English skills are prerequisites for employment. More than 50 percent of the labor force works in the agricultural sector, much of which is subsistence farming.

Rather than relying on the BPO/IT sector, India may need to raise living standards the "old-fashioned" way. That is, from England at the dawn of the Industrial Revolution to the United States in the late 19th century/early 20th century to the Asian "tigers" a few decades ago to China today, countries have raised living standards rapidly via significant expansion of the manufacturing sector. Because productivity tends to be high in manufacturing, the sector has the potential to create millions of relatively high-paying jobs. In other words, migration of labor from the low-productivity agricultural sector to the high-productivity manufacturing sector leads to higher living standards for millions of unskilled workers.

Only a few million people are employed in the manufacturing sector.

Consider Korea, which went through its rapid growth phase in the 1970s and 1980s. In 1970, 9 percent of the Korean workforce was employed in the manufacturing sector, and manufacturing accounted for 17 percent of total value added in the economy. By the late 1980s, manufacturing employed 18 percent of the workforce and the sector accounted for nearly 30 percent of value added. In China today, there are 35 million manufacturing jobs, and the sector accounts for more than 40 percent of value added in the Chinese economy. In contrast, the situation in India is vastly different. There are roughly 6 million manufacturing jobs and the sector accounts for only 16 percent of value added in the Indian economy, up modestly from 13 percent a few decades ago.

The rise in the national savings rate over the past decade gives the country the potential to achieve a significant deepening in its manufacturing sector via strong investment spending that could potentially provide employment to millions of people. To realize its potential, however, India will need to develop or attract the technology needed to create a world-class manufacturing sector. Technology transfer usually occurs with foreign direct investment (FDI), and the increase in FDI over the past few years is a welcome sign (Figure 3). However, the amount of FDI in India is paltry compared to the total that China has been able to attract.[7]

Figure 3

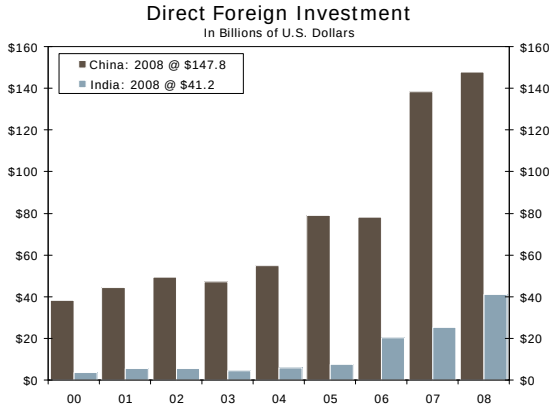
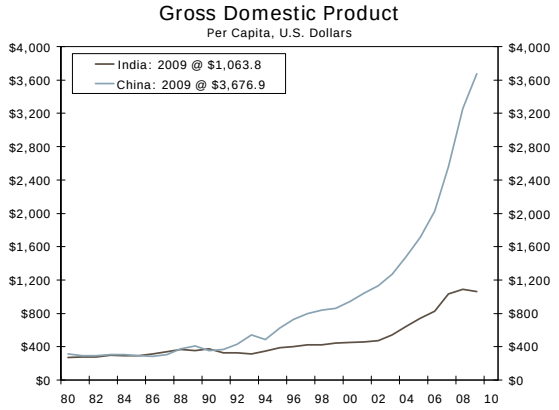


Figure 4



Source: International Monetary Fund and Wells Fargo Securities, LLC

[6] **NASSCOM, the National Association of Software and Services Companies, is the trade body of the BPO/IT industry in India. See NASSCOM Strategic Review 2009.**

[7] **Between 2000 and 2008, $119 billion worth of FDI entered India. Over the same period, $755 billion poured into China.**

Per capita GDP in China and India were roughly equivalent when Deng Xiaoping opened the Chinese economy in 1979 (Figure 4). Although per capita GDP in India has risen nearly fourfold over the past three decades, the comparable figure in China has shot up 12 times over that period. As measured by nominal GDP, the average Chinese citizen today is about three times better off than his Indian counterpart. Not only did the national savings rate rise earlier in China than it did in India, but at 45 percent today, the Chinese savings rate is 13 percentage points higher than in India. Consequently, China has been able to finance a larger increase in its capital stock than India. In addition, China has been able to attract a far-greater amount of FDI, which brings with it much-needed technology. For India to attract significantly more FDI and technology, the country needs to address its shortcomings, some of the most high-profile of which were discussed earlier.

Conclusion

According to neo-classical growth theory, a country's long-run economic growth prospects depend on capital, labor and technology. India's high savings rate, which can finance robust growth in investment spending, and its population growth rate, which is expected to average 1 percent per annum for the next decade or two, will give the country the added physical inputs needed to sustain a rapid rate of economic growth. If not addressed, however, the country's inadequate infrastructure, the poor education that most of the citizenry receives, endemic corruption and excessive regulation could constrain the country's growth prospects. Foreign companies may be less inclined to invest in India, which brings with it much-needed technology, if these and other challenges continue to impede the ease of doing business in the country. Out of 132 countries that were ranked in the recent Global Competitiveness Report, India placed 49th in terms of overall competitiveness. However, China ranked 29th, which made it the most highly ranked country among developing economies. The relative ease of doing business in China allows it to attract more FDI and foreign technology that, combined with its high investment rate and abundant labor, helps to stoke robust economic growth over the long run.

The challenges that India faces are significant, but they are not insurmountable, and addressing them is ultimately a political decision. In that regard, the country took steps after the 1991 balance-of-payments crisis to begin to de-socialize the economy. Manmohan Singh, who as finance minister in the early 1990s was the architect of the original reforms, has served as the country's prime minister since 2004. Therefore, evidence suggests that economic reform is supported by a critical mass of the voters. If the outlines of the 12th five-year plan are approved, India will invest significantly more in infrastructure during the next five years. However, stamping out corruption, which is widespread, and removing excessive regulation, which is the fiefdom of bureaucrats, may prove to be more intractable problems.

In our view, India will continue to post strong economic growth rates over the next few years. In the long run, its high savings rate and solid population growth rate give it the potential to become one of the world's largest economies in a few decades. (It currently ranks No. 13 in the world in terms of nominal GDP.) To achieve that lofty status, however, India will need to develop or adopt the technology that will be critical in repositioning labor from the low-productivity agricultural sector to the high-productivity manufacturing sector. Whether India undertakes the reforms necessary for it to reach its full economic potential will depend, at least in part, on political decisions over the next decade or two that are very difficult to predict at this time. India has the potential to eventually become a truly great economic power, but its success is by no means assured.

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