INDIA: A GLOBAL ECONOMIC POWER? REVISITING THE PAST AND CONTEMPLATING THE FUTURE

Arvind Panagariya

Seventeen years after publishing "India: A New Tiger on the Block?" in the Spring/Summer 1994 issue of the Journal of International Affairs, *Arvind Panagariya revisits his analysis of India's 1991 economic reforms and looks ahead to India's economic prospects in a changing world order.*

In the Spring/Summer 1994 issue of the *Journal*, I published an article entitled "India: A New Tiger on the Block?" in which the concluding paragraph asked, "Will India accomplish in the next decade what China did in the previous one?" I stated that although it is overly optimistic to respond affirmatively, a 6 to 7 percent annual growth rate in India could not be ruled out. The world should not be surprised if, in a decade's time, it sees another tiger on the block.[1]

This prediction was made against the backdrop of a balance-of-payments crisis in the first half of 1991. That crisis had brought India's growth rate down to below 2 percent in fiscal year 1991–92.[2] According to the data available at the time I wrote the above-mentioned article, recovery from the crisis had begun but growth was still modest—4 percent in 1992–93 and 3.8 percent in 1993–94.[3] Therefore, it was far from clear that the liberalizing reforms that had been and were being introduced would succeed. I was out on a limb; no one else at the time seemed to stake a claim to India's growth matching the Chinese level within a decade.

Luckily for India, the subsequent events have fully justified the liberalizing reforms that had begun to be introduced stealthily and haltingly in the second half of the 1970s but that became bolder and more systematic beginning with the important package of 1991. India grew at an average annual rate of 6.2 percent

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during the decade spanning 1994–95 to 2003–04. And, beginning in 2003–04, within a decade after the publication of the article, it shifted to the 8 to 9 percent trajectory commonly associated with the tiger economies of East Asia. By 2008–09, correcting for inflation, the per capita GDP in India had reached 2.26 times its level in 1990–91.[4] Side by side, the proportion of population living below the poverty line had declined from 36 percent in 1993–94 to 27.5 percent in 2004–05.[5]

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In this paper, I briefly discuss the key developments that have taken place since the systematic reforms of the 1990s. The gist of this discussion is that while India has made significant economic progress after having lost nearly three to four decades, it still has some distance to go before it is able to make abject poverty history. I argue that a much bigger transformation awaits India in the coming fifteen years. During these years, it will surpass China in terms of growth and begin to catch up with it in terms of GDP. By 2025, India will turn into the third or fourth largest economy in the world. It will also become an ever-larger supplier of the highly mobile global workforce during these years. These expected developments in India will have far-reaching implications for the world economy.

The Changing Landscape of the Indian Economy

Prior to the reforms, India started at such a low level of income and with such vast poverty that somewhat paradoxically it is possible today to simultaneously argue that reforms have yielded unprecedented growth and poverty reduction and that despite the reforms, poverty remains pervasive and per capita incomes low. If you are cheering for the reforms, you emphasize the first and if you are nostalgic about the old order, you assert the latter.

Writing in 1980, only a decade before the 1991 reforms, Gary Fields, a leading expert on poverty at the time, described poverty in India in these dire terms:

> India is a miserably poor country. Per-capita yearly income is under $100. Of the Indian people, 45 percent receive incomes below $50 per year and 90 percent below $150…India's poverty problem is so acute and her resources so limited that it is debatable whether any internal policy change short of a major administrative overhaul and radical redirection of effort might be expected to improve things substantially.[6]

Yet, having grown at the average rate of 6.2 percent during three decades spanning 1980–81 to 2009–10 and at 8.3 percent during the last seven years of this period, India is now a far bigger economy and has lifted more than 200 million people out of abject poverty.[7] From the near basket case described by Fields in 1980, India is an increasingly confident nation, rapidly pulling itself toward upper middle-income status.

India's low per capita income and continuing high levels of poverty mask the major changes that have already taken place and that are at the heart of what is to come. It is important to recall that—irrespective of whether we choose 1980 or 1990 as the origin of reference—India began at very low levels of income and high levels of poverty. Therefore, the continuing low per capita income and high rates of poverty in relation to the income and poverty levels prevailing internationally are consistent with the vast transformational changes in the economy that have already taken place. This can only be appreciated by focusing on some of the specific structural changes and sectoral developments.

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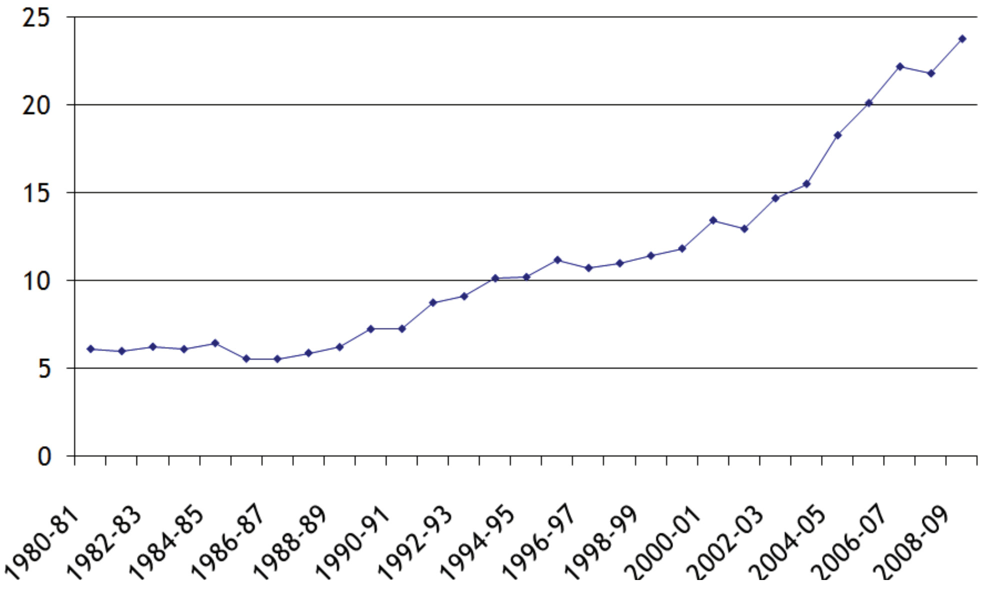
Even as late as 1990–91, India was nearly a closed economy. Exports of goods and services as a proportion of GDP stood at 7.3 percent and imports at 9.9 percent. Foreign investment was barely positive at $100 million. Remittances from overseas Indians were slightly larger at $2.1 billion.[8] In terms of policy, with the exception of a small proportion of products, imports were subject to across-the-board licensing and tariff rates that rose as high as 400 percent. Fewer than 4 percent of the tariff lines attracted a tariff of 60 percent or less.[9] The policy regime toward foreign investment was hostile, with such investments only permitted under extremely strict conditions.

Three factors contributed to a change of ethos in favor of liberalization. First, the government was increasingly reminded by businessmen that the command and control regime India had chosen was impeding economic progress. Second, the Soviet Union, which had served as the original inspiration for the policy regime India had embraced, collapsed. Finally, and perhaps most importantly, after liberalizing reforms beginning in the late 1970s, China took off economically. The leadership in India had often dismissed the favorable experiences of South Korea and Taiwan with outward-oriented policies as irrelevant for India since India was a much larger country. But that argument could not be applied to China since it was even larger than India. Systematic liberalization of trade and investment were launched in 1991, with the process continuing on a stop-and-go basis in the subsequent years.

As a result of the accumulated reforms over the years, today trade in industrial goods and services and foreign investment are as free in India as in China. Direct import restrictions including licensing for protectionist reasons are all gone. The only such restrictions are those permitted under WTO rules for reasons of health, environment, protection of human, animal or plant life and national security. Only in agriculture is India more protected than China. The highest rate on non-agricultural imports is set at 10 percent with some exceptions. Foreign investment has been opened in almost all sectors except multi-product retail. Sectoral caps remain on foreign investment but they are set below 51 percent in only a handful of cases, and go up to 100 percent in most cases.[10]

The response to these and other liberalizing policy changes has been quite dramatic. Figure 1 shows the export-to-GDP ratio from 1980–81 to 2008–09. Initially, the ratio grew slowly but took off beginning in 2002–03, nearly doubling within seven years from 12.9 percent in 2001–02 to 23.8 percent in 2008–09. What is remarkable is that this massive change has happened side by side with a GDP growth of more than 8 percent, which goes in the denominator of the ratio. The total trade-to-GDP ratio in India stood at 53.4 percent in 2008–09.[11]

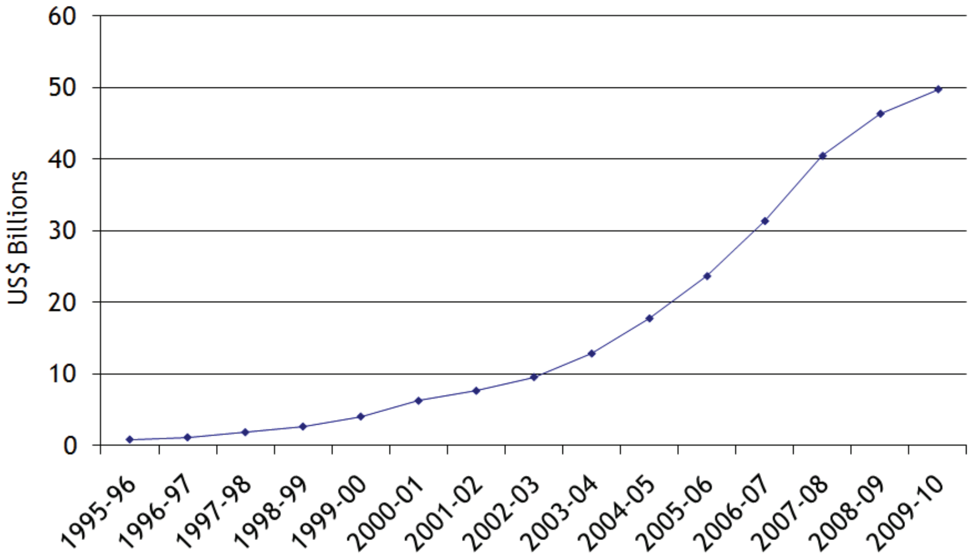
Figure 1: Exports of Goods and Services as Percent of GDP, 1980-81 to 2008-09



Source: The author's construction based on the data in the Reserve Bank of India's *Handbook of Statistics on Indian Economy, 2008-09* (2009).

Software exports represent another important success story in the post-reform era. Contrary to the popular impression often promoted by commentators who like to attribute this sector's success to a form of infant-industry protection, as recently as 1995–96 these exports amounted to less than $1 billion.[12] But they took off in the following years, rising especially rapidly beginning in 2003–04. In 2009–10, software exports reached $49.7 billion, representing the largest single export of India.

Figure 2: Software Exports, 1995-96 to 2009-10

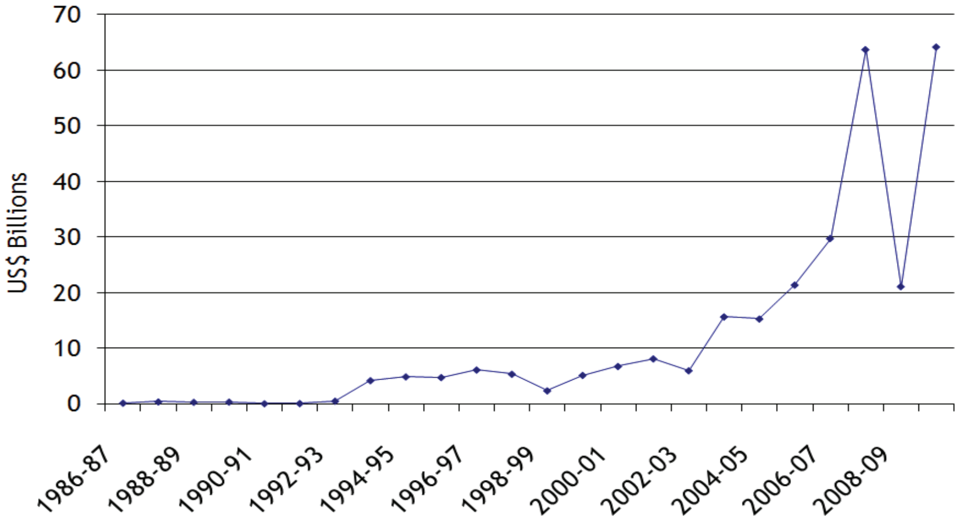


Source: The author's construction based on the data in the Reserve Bank of India's Annual Reports, various issues.

One specific trade relationship that has dramatically transformed is that with China. In 1990–91, the total merchandise trade between the two countries amounted to just $49.2 million. By 2008–09, this figure had reached $41.4 billion. Having surpassed the United States, China is India's largest trading partner today. Because the bilateral balance of trade is disproportionately in favor of China—the latter's exports to and imports from India in 2008–09 were $32.1 billion and $9.3 billion, respectively—there are some concerns in India about the future evolution of the relationship.[13]

While India still maintains restrictions on short-term financial capital flows, beginning in the early 1990s it opened both direct foreign investment and portfolio investment. The pace of inflows was initially slow but it too took off beginning in 2003–04 in a major way. By 2007–08, these inflows had reached $63.8 billion or 5.4 percent of GDP.[14] The financial crisis that began in September 2008 led to a sharp decline in inflows in 2008–09, but they recovered entirely in 2009–10, reaching $64.1 billion.[15] Figure 2 shows these inflows from 1986–87 onward.

Figure 3: Foreign Investment into India, 1986-87 to 2009-10



Source: The author's construction based on the data in the *Reserve Bank of India Handbook of Statistics on Indian Economy, 2009-10* (2010).

Two other indicators of performance of the external sector are worth mentioning. Remittances from overseas Indians have seen almost as sharp a rise as software exports. From $2.1 billion in 1990–91, they have risen to $52.1 billion in 2009–10. As a percentage of GDP, they amounted to a gigantic 4 percent in 2009–10. This amount constitutes a very large contribution to the well-being of Indian citizens.

The second notable external sector development is the accumulation of foreign exchange reserves. Recall that the process of the systematic reforms in 1990–91 had been triggered by a balance-of-payments crisis that effectively manifests itself in the running down of foreign exchange reserves to near zero. Since the 1991 reforms, India has steadily accumulated reserves. Initially, they grew slowly reaching $42.3 billion at the end of 2000–01. But they rose far more sharply afterward, peaking at $309.7 billion at the end of 2007–08. While the reserves by themselves are not an indication of improved welfare and may even represent the investment opportunities foregone, they help lend a degree of macroeconomic stability to the economy. On one hand, they reassure investors that a 1991-style balance-of-payments crisis is not likely and on the other, they allow the central bank to smooth out potential fluctuations in the exchange rate.

The most dramatic success of Indian reforms has been in telecommunications and is worthy of some elaboration. Those who have lived through 1970s and 1980s India can testify to the poor quality of telecommunications services during these decades. The running joke used to be that you had to wait in a years-long queue to get the phone. Once you got the phone, half the time you would find the dial tone missing and the other half of the time, upon dialing, you would get the wrong number!

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The picture was equally depressing in quantitative terms. The telephone had arrived remarkably early in India. Doors to the first telephone exchanges, located in Calcutta, Bombay and Madras, opened as early as January 1882—just six years after Alexander Graham Bell patented the first telephone.[16] But the telephone network in India did not expand rapidly. Until as late as 1948, there were only 80,000 phones countrywide.

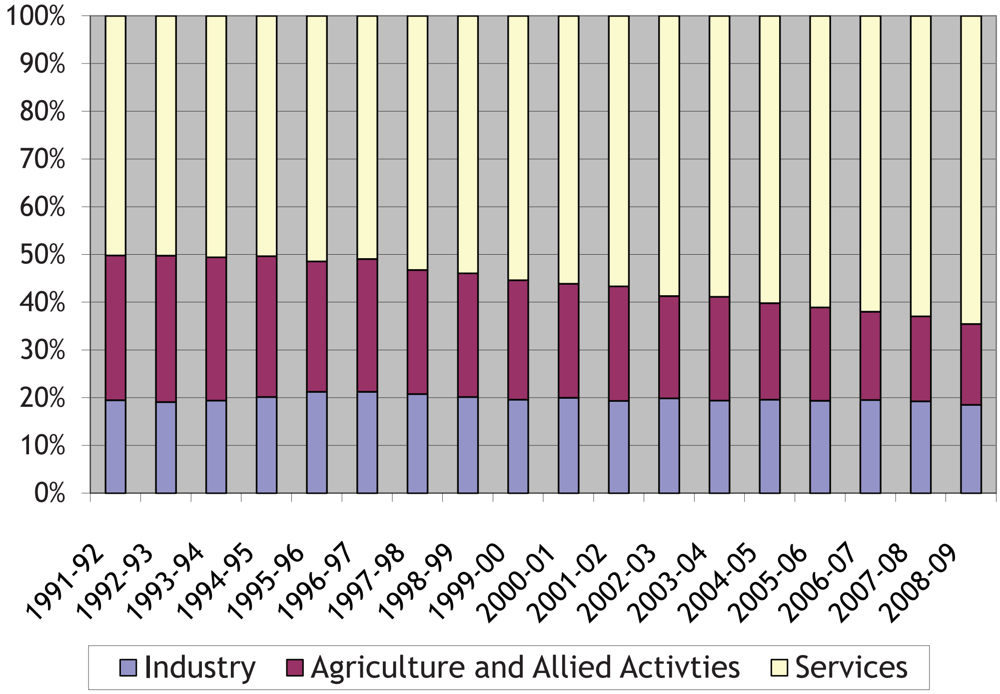
The government of India made a more serious effort to expand the telephone network in the country following independence, but the pace of expansion rose only marginally. At the end of 1990–91, the total number of phones was still just 5.1 million with teledensity—the number of phones per hundred—embarrassingly low at 0.6.

Reformist prime minister Narasimha Rao, who came to the helm in 1991, chipped away the government monopoly over telecommunications by letting private mobile phone operators enter the market in selected cities in the mid-1990s. The change led to some acceleration in the growth of phones but the telecommunications revolution did not happen until another reformist prime minister, Atal Bihari Vajpayee, introduced and implemented the New Telecom Policy (NTP) in 1999. Under the NTP, private sector players gained entry in all markets and were rapidly placed on equal footing with public sector suppliers. A healthy competition ensued and growth in mobile telephony exploded. India went from a total sum of 5 million telephones installed in the first 110 years to adding 16.8 million phones per month during the April to June 2010 quarter. At the end of June 2010, India had a total of 671.7 million phones and teledensities of 128.2 in urban and 26.4 in rural areas. With five members per household, even rural areas now have more than one phone per household on average. Mobile phones now account for 95 percent of total phones and the private sector accounts for 84 percent of the total subscriber base of 671.7 million.[17]

Among other major success stories are the automobile and airline industries. In 1990–91, India produced a total of just 180,330 cars. In 2009–10, this number had climbed to 2.1 million cars, a figure 11.5 times that in 1990–91. In terms of quality, the change is even more dramatic. From the 1950s model of Ambassador and Fiat that India continued to produce into the 1980s, one can find every major automobile manufacturer with their latest models in India. These changes have followed the abolition of investment licensing and the opening of the economy to direct foreign investment.

The abolition of investment licensing has also been instrumental in the mega expansion of the production of two-wheelers; the number has risen from 1.8 million in 1990–91 to 10.5 million in 2009–10. In the domestic airline industry, the highly inefficient monopoly of the state-owned Indian Airlines has given way to the entry of multiple private airlines and an explosive growth in the passenger travel and air cargo business. The total number of domestic air passengers has risen from 7.9 million in 1990–91 to 44.9 million in 2007–08. Domestic air cargo has gone up from 97,300 metric tons in 1990–91 to 303,000 metric tons in 2007–08.

Figure 4: The Changing Composition of the GDP, 1991-92 to 2008-09



Source: The author's construction based on the data in the *Reserve Bank of India Handbook of Statistics on Indian Economic, 2008-09.*

I conclude this review by presenting the overall structural change in the economy. In a labor-abundant economy that starts out poor, a declining GDP share of agriculture and rising share of industry in general and labor-intensive manufacturing in particular has almost always accompanied rapid growth. This was the case, for example, in South Korea and Taiwan in the 1960s and 1970s and in China since the early 1980s. So far, the Indian experience has defied this pattern. Although the share of agriculture has declined in the last twenty years, a rising share of industry has not accompanied it. Instead, it is services that have picked up the slack. This pattern is a source of some worry since it has also meant slower decline in poverty than would be possible if a rising share of labor-intensive manufacturing and industry in general had accompanied the same growth. While the fast-growing services sector has helped reduce the importance of agriculture in the GDP—a desirable feature of growth—it has led to slower transformation of the structure of employment. A very large proportion of the labor force in India remains in agriculture.

Changing Attitudes

In my 1994 article, I discussed at some length the change the reforms had brought about, even in their infancy, in how the leadership and policymakers viewed liberal economic policies. It is useful to recall it in some detail. I began by stating:

> "Until recently, most people in India viewed any liberalization with hostility and fear. The argument that India is different was invoked to defend the most archaic policies not just by politicians and self-serving bureaucrats but also by the majority of economists working in India. So strong was the grip of these ideas on the Indian psyche that the mild liberalization of the 1980s had to be carried out essentially by stealth…Even the July 1991 budget speech by Finance Minister Manmohan Singh, which ushered in the current era of reforms, had to balance the announcements of reforms by a constant reiteration of the usefulness of past policies. The minister made repeated references to contributions to development of Jawaharlal Nehru, India's first prime minister, while recalling the just-assassinated Rajiv Gandhi's vision of taking India into the 21st century."[18]

I went on to add,

> "Many of the most ardent defenders of protection have come to the fold of liberalization and, as heads or members of different reform committees, they are themselves making recommendations for further liberalization. Economists

> who for years supported the creation of the License Raj have been making calls for a bonfire of licenses...This wide acceptance of the reform has, in turn, allowed the Finance Minister to adopt a bolder tone in his budget speech. Gone are the repeated references to Jawaharlal Nehru; instead the February 1994 speech begins, rightly in my view, by crediting 'the inspired leadership of Prime Minister Shri P.V. Narasimha Rao' for the reforms initiated three years ago."[19]

This favorable shift in thinking toward market-friendly reforms among the top leaders paved the way for further reforms. The Rao government lost the 1996 parliamentary election and was succeeded by a series of unstable and short-lived coalition governments. But in 1998, the Bharatiya Janata Party (BJP)-led National Democratic Alliance (NDA) came to power and ruled until May 2004. Led by Prime Minister Atal Bihari Vajpayee and Finance Minister Yashwant Sinha, the NDA government systematically implemented economic reforms in almost all areas except perhaps higher education and labor markets. It was these reforms that eventually placed the economy on the trajectory of miracle-level growth beginning in 2003–04.

Having broken the vicious cycle of low growth and high levels of poverty, reforms may have now produced a fundamental change in attitudes at the grassroots level. The latest evidence of this change has been observed in the October-November 2010 elections for the Bihar state legislative assembly.[20] In it, outgoing chief minister Nitish Kumar, who successfully placed Bihar on a high-growth trajectory in the last five years, was pitched against former chief minister Lalu Prasad Yadav, who presented himself as the champion of the underprivileged, though without concrete evidence to support that claim. Nitish Kumar decisively won this election.

A Global Economic Power?

On his maiden visit to India in November 2010, President Barack Obama stated on multiple occasions that unlike many who thought India was a rising power, the United States believed that "India has already risen."[21] No doubt, this was partially in recognition of India's economic achievements in recent decades. It is also likely that watching China emerge as a belligerent rival power in Asia and Japan acting increasingly acquiescent and unwilling to provide the necessary counterbalance, the president sought in democratic India a new source of this balance and advanced the timetable to recognize it as a risen power. But above all, he probably foresaw India's economic potential and importance to the United States and the global economy in the forthcoming decades.

Based on the 2010 World Development Indicators (WDI) of the World Bank, India currently accounts for less than 2.5 percent of the global GDP. It ranks eleventh in GDP terms and is placed below Brazil, Spain and Canada. The WDI data place India's per capita income, measured at the market exchange rate, at $1,134 in 2009 and list it in the 123rd position. Based on the latest large survey by India's National Sample Survey Organization, nearly 300 million Indians still lived in abject poverty in 2004–05.[22]

These indicators raise obvious doubts about the wisdom of characterizing India as a global economic power. Yet a good case can be made that India will be a global economic power within a matter of fifteen years; that is, by the year 2025. The WDI placed India's nominal GDP at the exchange rate at $1.3 trillion in 2009. Taking into account the real appreciation of the rupee in terms of the dollar, the GDP in India has grown at the annual rate of 12 percent in real dollars. As I will explain in the following section, a strong case can be made that the prospects for this growth to sustain in the forthcoming fifteen years are excellent.

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But even making the more conservative assumption that India will grow 10 percent per year in real dollars until 2025, its GDP will rise to $6 trillion by that date. This will be sufficient to place India third in the GDP ranking, ahead of Japan whose GDP in 2009 was $5.1 trillion and whose economy is predicted to grow at snail's pace at best. The UN Department of Social and Economic Change predicts that the population of India in 2025 will be 1.43 billion.[23] This would imply a per capita income of approximately $4,170. When combined with the strong support for anti-poverty programs in public policy in India, this per capita income is almost certain to result in the near elimination of abject poverty. It is the prospect of this dramatic transformation of India in the coming fifteen years that makes it a highly likely global economic power. Judged against the emerging geopolitical pressures in Asia, this prospect also explains why President Obama chose to characterize the country as a power that had already risen.

There is one further reason India is likely to be extremely important for the global economy in the forthcoming fifteen years: the demographic transition. The immigrant labor force has become an extremely important contributor to the economies of developed countries. According to the UN, international migrants currently account for a whopping 12.6 percent of the developed country working-age population composed of those aged 20 to 64.[24] In the next fifteen years, the proportion of working-age individuals in the total population in the developed countries is predicted to sharply decline. This will further expand the scope for migrant workers. With the Chinese population predicted to age as well, India is left as the only large country capable of filling the void.

In table 1, I provide some demographic data culled from a report by the United Nations.[25] Two points stand out. First, the proportion of the working population to the total population will decline from 61 to 58 percent between 2010 and 2025 in the developed countries. The proportion will marginally decline in China as well. In contrast, in India, it will rise from 54 to 59 percent.

Table 1: Demographic Transition and India: 2010 to 2025

Age group	*2010*	*2025*	*Change*
Developed Countries			
20-39	343.0	311.0	-32.0
20-49	521.0	484.0	-37.0
20-64	761.0	737.0	-24.0
All ages	1237.0	1277.0	40.0
20-64 as % of All Ages	61.5	57.7	-3.8
China			
20-39	433.0	403.0	-30.0
20-49	655.0	592.0	-63.0
20-64	867.0	909.0	42.0
All ages	1354.0	1453.0	99.0
20-64 as % of All Ages	64.0	62.6	-1.5
India			
20-39	390.0	469.0	79.0
20-49	526.0	656.0	131.0
20-64	659.0	850.0	191.0
All Ages	1214.0	1431.0	217.0
20-64 as % of All Ages	54.3	59.4	5.1

Note: Figures in millions unless otherwise specified. Source: Author's calculations based on projections in United Nations. *World Population Prospects: The 2008 Revision, Volume II* (Department of Economic and Social Affairs, 2009).

Second, the working population is predicted to age in the developed countries as well as in China. But it will get younger in India. Between 2010 and 2025, workers aged 20 to 49 years will decline by 37 million in the developed countries and 63 million in China. In India, the figure will rise by 131 million. By 2025, India will account for 19 percent of the world population aged 20 to 49. The corresponding percentages for the developed countries and China will be 14 and 17, respectively. By all indications, many more Indians will become part of the highly visible global workforce by 2025.

What India Must Do

Circumstances are favorable to continued rapid growth in India during the next fifteen years. Rapid growth requires rapid capital accumulation, availability of a productive workforce and rising productivity. Savings as a proportion of GDP has steadily climbed in the last ten years and is approximately 35 percent today. It is rare for the savings rate to reach this level and suddenly collapse.[26] Therefore, it is a reasonable bet that the savings rate in India will remain high. Indeed, since corporate savings in India are still low by comparison with China, there remains a possibility of further increase in the overall savings rate. [27] This means capital accumulation will continue to fuel high growth in India.

The situation with respect to labor is even better. I discussed the forthcoming demographic transition in the previous section. India is predicted to have both a larger workforce and an increasingly younger one in the next fifteen years. Therefore, India also faces a healthy outlook with respect to labor as the input. As a side benefit, a rising workforce as a proportion of the total population will also work toward raising the savings rate.

Finally, today India is a very open economy both externally and domestically. There are no quantitative restrictions on imports and tariffs on industrial goods are low. Opening to foreign investment has led to openness in the services sectors as well. There exists no more industrial licensing so that entry of firms is relatively free. On one hand, trade has expanded to intensify external competition while on the other, entry of new firms has led to increased competition from within.[28] This competition means that India is well positioned to play catch up on productivity. Being quite poor, the current productivity levels in India are far lower than those in the rest of the world and as competition moves it toward the world productivity level, the country can get some growth through increases in productivity as well.

But India could do better. With more than half of its labor force still in agriculture—a lot of it on very small farms—India has a large underutilized labor force. Economic reforms that could speed up the movement of this underutilized workforce into more productive employment in labor-intensive manufacturing and services will go a long way toward further acceleration in growth. In turn, this requires reform of labor and land laws, bankruptcy procedures and the provision of electricity, the absence of which has inhibited the entry of large-scale firms in labor-intensive manufacturing activities.[29] As an example, despite its vast labor force, India's apparel exports are approximately the same as Bangladesh and only one-tenth those of China. Due to labor laws that become increasingly stringent as firm size rises, apparel firms in India are tiny when compared to those in China and on average even smaller than those in Bangladesh. Ability to acquire land, difficulty of exit in case of failure and the availability of reliable sources of electricity at reasonable prices act as further deterrents to the entry of large firms in the labor-intensive sectors.

In order to take full advantage of the demographic transition described above, India also needs a wholesale reform of its higher education system. Currently, the gross enrollment ratio in higher education—the number of people in higher education as a proportion of college-age population—is just 13 percent in India compared with 23 percent in China.[30] While the government must rapidly expand the number of public universities and colleges, given its resource constraint, it must also harness private resources. This requires reforming the system to allow smooth entry of private universities. The bill to grant entry to foreign universities that is currently in the parliament, must be urgently passed. India also needs to introduce appropriate tuition fees to allow universities and colleges to shore up resources for an adequate operating budget.

Finally, India needs to streamline its social programs to rapidly combat poverty and improve access to education and health. The country needs to develop a robust system of cash transfers that would drastically cut the leakages from the prevailing social program and ensure that the transfers reach the intended beneficiaries. This task is likely to be greatly facilitated by the Unique Identification Project that the government is currently implementing. This project will make it possible to positively identify each individual remotely using a central database and make it easier for the intended beneficiaries to claim the benefits.

Concluding Remarks

In my 1994 article in this *Journal*, I predicted that India would achieve 6 to 7 percent growth as a result of the reforms that began in 1991. I also speculated that within a decade, we could see India emerge as a "tiger" economy. That prediction has largely come true.

The question today is whether India will be a global economic power in approximately fifteen years time. I have argued in this paper that this is indeed highly likely. I have explained why India will be able to maintain its current growth over the next fifteen years. If this turns out to be true, the GDP in India will hit the $6 trillion mark and place the country third in global GDP rankings by 2025. Correspondingly, per capita GDP in India would rise to $4,170 and abject poverty will be essentially eliminated.

A final question is whether India will surpass China during these fifteen years.

This question has at least three dimensions. First, being a vibrant and entrenched democracy, India already enjoys an advantage over China. India provides greater political, social and religious freedoms to its citizens. Moreover, in the very long run, it is unlikely that economic freedoms and globalization, which inevitably bring contact with the outside world in all walks of life, can be maintained without political freedom. As a wit might put it, the PC (personal computer) and the CP (Communist Party) may be incompatible in the long run. If so, it remains to be seen how China will transition out of one-party authoritarian rule to a democratic one. There is no guarantee that this will be accomplished without a major economic upheaval. Second, assuming China is able to transition smoothly to democracy, a good case still exists that in terms of the rate of growth, India will surpass China in the next five years. To date, there are no examples of countries growing at 10 percent annual rates for more than three and a half decades. Usually, the potential for rapid growth due to low initial levels of productivity is exhausted in three and a half decades and the growth rate drops closer to five percent. For example, this has been true of South Korea, Taiwan, Singapore and Hong Kong. China is very close to reaching this threshold. Finally, insofar as the GDP and per capita GDP are concerned, ruling out political upheaval, China will continue to be ahead of India in 2025. Its current lead over India along these dimensions is far too large to be eliminated in fifteen years.

NOTES

1 Arvind Panagariya, "India: A New Tiger on the Block?" *Journal of International Affairs* 48, no. 1, (Spring/Summer 1994), 221.

2 India's fiscal year begins on 1 April and ends on 31 March. Therefore, the year 1991–92 refers to the period from 1 April 1991 to 31 March 1992.

3 Panagariya (1994).

4 Author's calculations using data from Reserve Bank of India, *Handbook of Statistics on the Indian Economy 2008–09* (Mumbai: Reserve Bank of India, 2009).

5 Planning Commission, "Percentage and Number of Poor" (Government of India, http://planning-commission.nic.in/data/datatable/1611/tab_28.pdf (accessed 27 December 2010).

6 Gary S. Fields, *Poverty, Inequality and Development* (Melbourne: Cambridge University Press, 1980), 204.

7 Author's calculations using data from Reserve Bank of India's *Handbook of Statistics on Indian Economy 2009–10* (Mumbai: Reserve Bank of India, 2010) and Reserve Bank of India (2009) and data on poverty from Planning Commission.

8 Author's calculations using data from Reserve Bank of India (2009).

9 Panagariya (1994).

10 Arvind Panagariya, *India: The Emerging Giant* (New York: Oxford University Press, 2008), 105–7.

11 Author's calculations using data from Reserve Bank of India (2009).

[12] These commentators contend that the introduction of high barriers to foreign investment in the 1970s led IBM to exit the Indian market, which allowed the domestic software industry to flourish. But the low volume of exports as late as 1995–96 indicates that the real impetus to the industry came not from the exit of IBM, but from liberalizing changes that originally began in the mid-1980s under Prime Minister Rajiv Gandhi and continued through the 1990s.

[13] Author's calculations using data from Reserve Bank of India (2010).

[14] Author's calculations using data from Reserve Bank of India (2009).

[15] Reserve Bank of India (2009).

[16] BSNL, "History," http://www.calcutta.bsnl.co.in/history_ctd.shtml.

[17] For the reform history and 1990 to 1991 data on telephones, see Panagariya (2008), 274–80 and table 17.1. For the more recent data, see Telecom Regulatory Authority of India, *The Indian Telecom Services Performance Indicators, April–June 2010* (New Delhi, 5 October 2010), http://www.trai.gov.in/WriteReadData/trai/upload/Reports/52/5octoblerindicatorreporton13oct.pdf.

[18] Panagariya (1994); Telecom Regulatory Authority (2010), 209–210.

[19] Telecom Regulatory Authority (2010).

[20] Previously, the 2009 parliamentary election had shown a pattern very similar to the 2010 Bihar state assembly election: candidates of state ruling parties overwhelmingly won in states with high rates of growth and lost in those with low growth rates in the preceding five years. For details, see Poonam Gupta and Arvind Panagariya, "India: Election Outcomes and Economic Performance" (paper presented at "India: Economic Policies and Outcomes" conference, Columbia University, New York, 5–6 November 2010).

[21] Barack Obama, "Remarks by the President and the First Lady in Town Hall with Students in Mumbai, India" (Xavier College, India, 7 November 2010), http://www.whitehouse.gov/the-press-office/2010/11/07/remarks-president-and-first-lady-town-hall-with-students-mumbai-india.

[22] Planning Commission, "Percentage and Number of Poor," 16 November 2010, http://planningcommission.nic.in/data/datatable/1611/tab_28.pdf.

[23] United Nations. *World Population Prospects: The 2008 Revision, Volume II* (Department of Economic and Social Affairs, 2009).

[24] Department of Economic and Social Affairs Population Division, "International Migrants by Age," *Population Facts* 2010/6 (2010).

[25] Population Division of the Department of Economic and Social Affairs of the UN Secretariat, *World Population Prospects: The 2008 Revision - Highlights* (New York: United Nations, 2009).

[26] This can be verified by examining the savings rates in countries such as South Korea, Taiwan, Singapore and China since 1950.

[27] Based on the data from the Reserve Bank of India (2009), corporate savings as proportion of the GDP in India was 8.4 percent in 2008–09. In comparison, China's corporate savings rate as reported by China's National Bureau of Statistics was 25 percent in 2007; see Tamim Bayoumi, Hui Tong and Shang-Jin Wei, "The Chinese Corporate Savings Puzzle: A Firm-level Cross-country Perspective" (IMF Working Paper WP/10/275, December 2010).

[28] Laura Alfaro and Anusha Chari, "Does Liberalization Promote Competition?" (Paper presented at "India: Economic Policies and Outcomes" conference, Columbia University, New York, 5–6 November 2010).

[29] Panagariya (2008).

[30] Based on UNESCO data from http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=167. (accessed 27 December 2010).