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## Why India Can Grow at 7 Percent a Year or More: Projections and Reflections

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**IMF Working Paper**

Research Department

**Why India Can Grow at 7 Percent a Year or More: Projections and Reflections**

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**Abstract**

**This Working Paper should not be reported as representing the views of the IMF.**

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

Using a simple growth accounting framework, we project India's future potential output growth rate through 2025. We argue that there is perhaps more upside potential than downside risks to our central estimate of annual growth, which is close to 7 percent for aggregate output, or 5.5 percent for output per capita.

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“Among all forms of mistake, prophecy is the most gratuitous.”

George Eliot, *Middlemarch*

## I. INTRODUCTION

India's economic growth performance during the first three decades since it achieved independence in 1947 was christened the “Hindu” rate of growth by the late Professor Raj Krishna of the Delhi School of Economics. The term connoted a disappointing but not disastrous outcome and the acquiescence that the religion supposedly inspires, because of its greater emphasis on the hereafter. This term has lapsed into disuse thanks to the remarkable transformation in India during the last two decades. Since 1980, its per capita economic growth rate has more than doubled, rising from 1.7 percent in 1950–80 to 3.8 percent in 1980–2000.

With “feelgood” forecasts all the rage now, economic pundits have seemed to be in competition to raise projections of India's future economic growth rate. This rash of optimism has many proximate causes, all of which are derived from actual or perceived recent successes: the rebound in the Indian economy in 2003/04, with expectations of 8 percent growth; the surge in international reserves and the stock market; and the continuing boom in the Information Technology (IT) sector. The litany of corporate successes compiled and publicized recently by Minister Arun Shourie (2003) has given texture to these successes, confirming that the “feelgood” outlook is not only justified by the abstract numbers but by improvements in the economy's flesh and bones.

Still, why should recent success translate into permanently higher rates of growth of output in the future? Indeed, one of the cardinal errors of forecasting is to extrapolate the recent past. If that is so, what is the economic rationale for optimism about India's economic prospects? One recent and widely cited “analysis” pinned these bright prospects on the decline in interest rates (Lall, 2003). Another by Goldman Sachs (2003) invoked favorable demographics in the future as the likely cause of a pickup in the growth rate. Each of these analyses is problematic or deficient.

A decline in interest rates can provide some temporary impetus to growth by boosting investment and consumption demand: it can hardly be a basis for sustaining higher trend growth rates of productivity or output per capita. Moreover, it is more than ironic that perhaps one of the most vulnerable economic parameters should be isolated as the basis for future growth. Although there is a lot that is positive on the economic horizon, the fiscal picture is possibly the diciest. The occurrence of declining real interest rates against a background of high and rising deficits is something of a mystery in India. Rising rather than declining interest rates are more likely in the future.

The Goldman Sachs analysis identifies favorable demographics in the future as a basis for strong growth such demographic changes clearly constitute an important future trend, but their full ramifications are not worked through and the methodology employed is also internally inconsistent. For these reasons, the actual forecast of 5–5.5 percent annual growth underestimates India’s true potential possibly quite considerably.

In this paper, we set out an analytical growth perspective to forecast India’s growth rate. We draw heavily upon our recent paper (Rodrik and Subramanian, 2004) to come up with a central growth forecast, which is about 7 percent per year for output, or 5.6 percent for per capita output, for the next 20 years. We spell out the basis for this forecast, discuss the factors that might make this an underestimate, and also discuss the downside risks. Along the way, we present some remarks on what might be interesting about India’s economic future. As George Eliot’s quote above implies, the future is unlikely to indulge our whim for prognostication. The manner in which we arrive at them, however, may be of some residual interest.

## **II. INDIA’S ECONOMIC PERFORMANCE SINCE 1980**

Three remarkable features stand out about India’s economic performance over the last two decades. First, India experienced very high growth of output per capita at 3.8 percent per year, surpassed only by China and the East Asian countries (Table 1). Second, Indian growth was the most stable, surpassing even China and the East Asian countries. As Table 1 shows, the standard deviation of output per worker was smallest for India. Third, and perhaps the most noteworthy and yet least remarked upon, the contribution of growth of total factor productivity to overall labor productivity growth was the highest in India—about 60 percent—a performance that was only surpassed by China (Table 2). Indian per capita income growth has therefore been extensive—motored by productivity—and hence sustainable in the future, rather than based on deferred gratification, which runs into the limits imposed by diminishing returns to capital.

## **III. INDIA DURING 2005–25: A GROWTH ACCOUNTING EXERCISE**

What do the next two decades hold for India? To project growth over the next 20 years we adopt a simple growth accounting perspective. Growth depends on the accumulation of factors and the growth in their productivity. The familiar Solow growth accounting equation is:

$$y = \alpha k + (1-\alpha) l + a$$

where  $y$ ,  $k$ ,  $l$ , and  $a$  represent, growth in respectively, output, capital, labor, and total factor productivity.

Table 1. India in Cross Section: Mean and Volatility of Growth Rate of Output per Worker, 1960–2000 1/

	1960-70	1970-80	1980-90	1990-00	1960-80	1980-2000	1960-2000
<i>Industrial Countries</i>							
Mean	4.12	2.12	1.54	1.47	3.12	1.51	2.34
Standard Deviation	2.26	2.61	1.98	2.06	2.71	2.08	2.63
Coefficient of Variation	0.55	1.23	1.29	1.41	0.87	1.38	1.13
<i>East Asia (incl. China)</i>							
Mean	4.19	4.11	4.15	3.98	4.15	4.07	4.11
Standard Deviation	3.99	2.80	3.24	3.91	3.69	3.74	3.98
Coefficient of Variation	0.95	0.68	0.78	0.98	0.89	0.92	0.97
<i>China</i>							
Mean	1.66	2.82	6.86	8.85	2.24	7.85	5.05
Standard Deviation	12.45	3.40	3.59	2.37	8.90	3.13	7.17
Coefficient of Variation	7.50	1.20	0.52	0.27	3.97	0.40	1.42
<i>Latin America</i>							
Mean	2.38	1.69	(1.65)	0.83	2.03	(0.48)	0.81
Standard Deviation	3.47	4.00	4.40	3.03	4.07	4.17	4.43
Coefficient of Variation	1.46	2.36	(2.66)	3.66	2.00	(8.70)	5.47
<i>India</i>							
Mean	1.91	0.77	3.91	3.22	1.34	3.57	2.45
Standard Deviation	3.24	4.16	1.87	2.05	3.68	1.94	3.11
Coefficient of Variation	1.69	5.40	0.48	0.64	2.74	0.54	1.27
<i>Africa</i>							
Mean	1.87	0.69	(0.47)	(0.03)	1.28	(0.26)	0.53
Standard Deviation	5.41	5.25	4.48	4.48	5.54	4.89	5.55
Coefficient of Variation	2.90	7.56	(9.53)	(170.29)	4.33	(18.85)	10.47
<i>Middle East 2/</i>							
Mean	4.61	3.47	1.81	1.19	4.04	1.51	2.81
Standard Deviation	5.83	6.64	3.42	2.77	6.55	3.21	5.44
Coefficient of Variation	1.26	1.91	1.89	2.33	1.62	2.12	1.94

Sources: Bosworth and Collins (2003); and authors' calculations.

1/ All regional aggregates are unweighted averages.

2/ Excludes Jordan.

We assume  $\alpha$  to be equal to 0.35 as in Bosworth and Collins (2003). We next need to project  $k$ ,  $l$ , and  $a$ . We assume that total factor productivity will grow at the same pace as in the last two decades that is by about 2.5 percent per year. We argue below that this might be an underestimate.

What is the rate at which physical capital will accumulate? The answer to this depends primarily on the economic opportunities available and the private returns to investment. We shall argue in the rest of this article that the opportunities and returns are likely to remain high, and possibly increase further, in the near future. Moreover, there is every reason to believe that there will be adequate domestic saving to finance capital accumulation without running into an external constraint.

To calculate the “financeable” growth in physical capital accumulation, we assume that the change in private and hence aggregate savings will be determined over the next two decades by the evolution of the dependency ratio. According to population forecasts, India’s dependency ratio will decline from 0.62 in 2000 to 0.48 in 2025. This 14 percentage point decline in the dependency ratio will translate into a roughly equivalent rise in private and aggregate savings, from about 25 percent of GDP to 39 percent.<sup>2</sup> Assuming further that India’s borrowing from or lending to the rest of the world remains broadly unchanged during this period, this rising savings would allow an equivalent increase in domestic investment. Simple arithmetic suggests that this translates into a rate of growth of the capital stock of about 8.3 percent per year in the outer years, up from about 6 percent currently.<sup>3</sup> This growth in the capital stock together with the growth in factor productivity will yield output growth of 5.4 percent.

What about growth in human capital and the labor force? Over the next 20 years, the working age population is projected to grow at 1.9 percent per year. If educational attainment and participation rates remain unchanged, labor growth will contribute another 1.3 percent, yielding an aggregate growth rate of 6.7 percent per year, or a per capita growth rate of 5.3 percent.<sup>4</sup> This is a lower bound estimate and, even so, would be significantly greater than the per capita growth rate of 3.6 percent achieved in the 1980s and 1990s. Over a 40-year period, a 5.3 percent growth rate would increase the income of the average person nearly 8-fold.

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<sup>2</sup> This near one-to-one relationship is the result of the analysis of saving behavior in India by Mühleisen (1997). Note that this ignores any feedback from rising incomes back to savings.

<sup>3</sup> It is important to note that this rapid capital accumulation will not lead to too sharp a reduction in the marginal product of capital because of the simultaneous growth in total factor productivity.

<sup>4</sup> Note that favorable demographics arise from India’s labor force growth exceeding population growth by about 0.5 percent per year.

## **IV. UPSIDE POTENTIAL**

### **A. Within the Total Factor Productivity (TFP) Frontier**

Many factors suggest that there is upside potential to this forecast. First, TFP growth of 2.5 percent per year has been achieved with relatively modest reforms, particularly in the 1980s, and there is still unexploited potential. Empirical evidence for this comes from simple regressions of TFP on the deep determinants of development (as in Rodrik, Subramanian and Trebbi, 2004a). They suggest that India's level of TFP is between 1/3 and 40 percent of what it should be, creating the scope for productivity improvements based just on catching up. In addition, as reforms proceed apace, the level and pace of these improvements will be enhanced.

### **B. Prospects for TFP-Enhancing Reforms**

However, why should reforms proceed apace? Arguably, the political economy of reforms has changed significantly since the late 1990s. Reforms were crisis-driven in the early 1990s and for that, reason stalled in the mid-1990s as the memory of the crisis receded. Over the last few years, however, there has been a distinct pick-up in the pace of reforms—in telecommunications, electricity, transport, and privatization (see Kelkar, 2004). There is a greater sense than in the past that reforms are delivering tangible results, with the telecommunications revolution being perhaps the best example of benefits flowing to a large cross-section of the population. Reforms are thus going from being crisis-driven to success-driven which makes it more likely that they will be sustained and not be subject to major reversals.

### **C. Institutions**

Another cause for upside optimism relates to the quality of institutions, which has been India's underrated strength. This is going to be important in several ways. If the recent literature on the role of institutions in determining long-run development is correct, then simple econometric analysis suggests that India remains an underperformer, with a level of income well below what it ought to be. India is far from reaping the benefits of its institutional quality. As shown in Rodrik and Subramanian (2004b), the India "dummy" in regressions of the Acemoglu, Johnson, and Robinson, (2001) and Rodrik, Subramanian, and Trebbi (2004a) variety suggest that India's per capita income should be about 4-5 times what it currently is. In other words, India, having done the really hard work of building good economic and political institutions—a stable democratic polity, reasonable rule of law and protection of property rights—failed until the 1980s, to take advantage of it. Even small changes in policies could help India grow rapidly. Thus, India's growth in the near future (for the next decade at least) will not need fundamental and difficult challenge of overcoming institutional backwardness, but can rely on the easier task of taking advantage of existing institutions. Contrast this, for example, with China which has grown extremely rapidly in the last quarter century, but which faces the inordinate challenge of large-scale institutional transformation.



Another aspect of institutional quality is the resilience it creates to handling shocks. Countries with good institutions do not in general experience large declines in growth (Rodrik, 1999; Acemoglu et. al., 2002). With strong institutions, a lot will have to happen to move India off its higher growth trajectory.

#### **D. Skilled Human Capital**

High levels of human capital are a key prerequisite for a developing country to exploit the benefits of technological progress (see Coe, Helpman, and Hoffmaister, 1997). India's stellar productivity growth in the last two decades, and not just in the IT-sector, has benefited from its stock of highly educated human capital. Going forward, this process is likely to be reinforced for at least two reasons. First, the growing location of R&D facilities in India—in pharmaceuticals, software and other IT-services—by foreign companies, will further enhance the scope for dynamic benefits. Second, over the last three-four decades India did not fully reap the benefits of its stock of human capital because a substantial share had moved overseas. This dynamic is changing qualitatively. Cyclical factors such as 9/11 and the economic downturn in the United States have reduced overseas demand for India's human capital.

But there are also structural factors reinforcing this effect—as incomes rise and opportunities grow within India, there is less of a push factor at work. Moreover, technological change means that India can deliver services overseas without its labor having to migrate. The more high skilled labor remains within India, the greater the scope for spillover benefits to the Indian economy. Thus, outsourcing produces a double whammy of benefits—India reaps the static efficiency benefits from the international division of labor without foregoing the dynamic benefits that arise from labor emigration.

In terms of the growth accounting framework sketched above, the growth in the skilled labor force in the future available for domestic activity will be greater than in the past because of less emigration and possibly also because of the return of previously emigrated Indians.

#### **E. Less-Skilled Human Capital**

Another factor relates to the contribution of less-skilled labor to growth. The future evolution in participation rates and basic educational attainment remain two key unknowns. In our base-case estimate, we had assumed that participation rates would remain constant over the next 20 years. Participation rates in India have been stubbornly low despite rising levels of education, which has been something of a mystery. However, if this changes in the future, the impetus to growth could be substantial. For example, a 10 percentage point increase in the participation rate over the next 20 years would add another 0.3-0.4 percentage points to growth rates.

What is the likely trajectory of educational attainment? Amartya Sen has drawn attention to the disappointing post-Independence performance of the Indian state in delivering education, reflected in very slow improvements in literacy rates, especially amongst women. While the supply of educational services by the state was inadequate, Sen raised the puzzle as to why there was not greater *demand* for education and hence greater pressure on the state to meet this demand. One answer to this puzzle is that the private returns to literacy and basic education must have been low. There is now evidence that the increasing opportunities that are spurring economic growth also contribute to raising these returns, leading to a greater demand for educational services—public and private—and hence in educational outcomes (Munshi and Rosenzweig, 2003). In such an event, the potential growth rate could reach as high as 8 percent.

## **V. DOWNSIDE RISKS**

Consider the possible objections or downside risks to this forecast.

### **A. Impact of Information Technology (IT): Accounting Versus Spillovers**

Some of the recent growth (since the 1990s) in India has been driven by the explosion of IT-related services. One strand of skeptical thought holds that IT cannot be a long-run source of growth because it currently accounts for such a small share of GDP and employment. One response to this skepticism could refer to demand linkages: if one sector grows, it creates demand for inputs of that sector and at the same time increases incomes, generating demand for the entire economy. Nevertheless, this is not compelling because it runs into the cold logic of accounting: a very small part of the economy will have to grow at impossibly large rates to lift the whole economy.

The more subtle and more persuasive response to the skeptics' concerns relates to the impact that the IT-explosion could have on the economy's long-run supply capacity. It is possible that the IT-explosion, by visibly raising the rewards for being educated, will durably boost the demand for educational services. Anecdotal evidence for this comes from the mushrooming of English-language schools in backward states such as Bihar and the agricultural hinterland of Punjab. Munshi and Rosenzweig (2003) provide systematic evidence from Mumbai on how the increased return to education is leading to expanded school enrollment by women and overhauling traditional caste structures. To be sure, increased demand will relate in the first instance to the acquisition of specific skills (such as fluency in English and computer proficiency). Over time, however, this demand could percolate down the hierarchy of skill, improving basic educational outcomes. According to Sen, this pressure from below was missing in the past, contributing to the rather limited progress in educational outcomes.

Strict devotees of the accounting logic—that small sectors cannot lift the overall economy—also fail to recognize that registered manufacturing played a key role in overall economic performance in the 1980s and 1990s despite accounting for a small share of total output of less than 10 percent (Rodrik and Subramanian, 2004b). In the case of manufacturing, there may well have been a supply externality at work—the acquisition of managerial and organizational skills in manufacturing could have been beneficially transferred to services. With certain service sectors—finance and telecommunications—similar spillover effects could be generated, leveraging the contribution of these sectors beyond what might be expected given their size.

## **B. Divergence**

One disturbing trend in the last two decades of rapid growth has been the growing disparity in economic performance between two groups of states (see Table 2 in Rodrik and Subramanian, 2004b). Instead of convergence among the states, we see divergence big-time, with peninsular India growing more rapidly than the hinterland BIMARU states. Moreover, in the future, this trend could widen as existing advantages are reinforced by new technologies. A related disparity that the future threatens is between skilled (typically urban) and semi- and low-skilled labor (typically rural) within and across states.

It should be noted that the disparity between states is both a cause for concern but also the consequence of a very powerful positive dynamic in India: namely, the competition among states to improve institutions and policies—a kind of “race to the top”—as a means of attracting increased amounts of foreign and domestic capital. For these reasons, it is possible that the divergence is self-limiting—states left behind will be under pressure to follow the demonstration effect of the more successful states or else face the consequences.<sup>5</sup> In an internal market such as India’s with free movement of capital and labor, these consequences could be severe. Admittedly, India has not witnessed, yet, the movement of labor commensurate with the growing divergence (Cashin and Sahay, 1996), but capital flows are proving to be more sensitive to state-level policies, and over time inter-state labor flows could also accelerate.

## **C. Institutions**

As remarked earlier, India’s prospects are bright partly because of the quality of its domestic institutions. In terms of economic institutions, India ranks in the fourth decile in a global sample, and in the second decile amongst developing countries. In terms of political institutions, India’s ranking is even higher (51<sup>st</sup> in a sample of 173 countries and 14<sup>th</sup> in a sample of 84 developing countries). Looking ahead, though, what are the prospects for the maintenance and development of these institutions?

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<sup>5</sup> The attempt by even the most weakly governed states to do road shows abroad to convince investors of the investment-friendly climate attests to this pressure.

Table 2. Contributions to Growth: India in Cross Section, 1960–99

Region/Period	Output	Output per Worker	Physical Capital	Education	Contribution of:		
					Factor Productivity	Factor Productivity	Physical Capital
				In percentage points		In percent of total	
<b>Industrial Countries</b>							
1960–80	4.42	3.05	1.22	1.61	1.30	43	40
1980–99	2.68	1.60	0.78	0.98	0.64	40	49
1960–99	3.57	2.34	1.01	1.30	0.98	42	43
<b>East Asia (including China)</b>							
1960–80	5.64	2.98	1.45	1.93	0.96	32	49
1980–99	8.03	6.02	2.44	2.85	3.25	54	41
1960–99	6.80	4.45	1.93	2.38	2.07	46	43
<b>China</b>							
1960–80	4.04	1.83	0.76	0.43	0.64	35	41
1980–99	9.75	7.85	2.63	0.36	4.71	60	33
1960–99	6.78	4.72	1.66	0.39	2.60	55	35
<b>Latin America</b>							
1960–80	6.10	2.90	1.08	1.42	1.45	50	37
1980–99	2.20	-0.54	0.09	0.48	-1.02	189	-17
1960–99	4.18	1.21	0.60	0.96	0.24	20	49
<b>India</b>							
1960–80	3.41	1.28	0.72	0.43	0.12	9	56
1980–99	5.73	3.60	1.18	0.33	2.05	57	33
1960–99	4.53	2.40	0.95	0.38	1.06	44	39
<b>Africa</b>							
1960–80	4.36	1.78	1.06	1.21	0.66	37	59
1980–99	2.02	-0.70	-0.12	0.25	-0.93	134	18
1960–99	3.21	0.57	0.48	0.74	-0.12	-21	85
<b>Middle East</b>							
1960–80	5.71	3.14	2.74	3.25	0.28	9	87
1980–99	3.68	0.85	0.20	0.81	-0.08	-9	23
1960–99	4.71	2.02	1.50	2.06	0.11	5	74

Source: Bosworth and Collins (2003).

Institutions are a fuzzy concept. Institutions can be defined in terms of the functions they perform—developing markets (rule of law and protection of property rights); regulating markets (correcting market failure); stabilizing markets; (central banks etc.); and legitimizing markets (democracy; redistributive mechanism; social safety nets etc.). Institutions can also be defined hierarchically: there are meta-institutions such as democracy; the legislature, judiciary; press; and the bureaucracy; and then there are meso-institutions such as the Reserve Bank of India, Telecommunications Regulatory Authority of India, vigilance commissions, etc.

Are the meta-institutions in healthier shape today than a few decades ago? Even allowing for the distorted prism of nostalgia, few would disagree that the quality of politicians, bureaucrats, and judges, and hence the public roles they served and the institutions they inhabited were considerably stronger in the first two to three decades after independence. The decline set in thereafter, a process that was aggravated by the rent-seeking that the Kafkaesque system of controls gave rise to. While difficult to quantify, the anecdotal evidence points to a decline in the quality of all the meta-institutions—the rising levels of pending cases in the state courts, the increase in the number of “political” scandals, and the politicization of the judiciary and the bureaucracy.

There are, however, three countervailing trends that could arrest, perhaps even reverse, the decline in the quality of, the meta-institutions in the future. First and foremost, there has been a sharp rise in transparency: public institutions have been exposed to the glare of public scrutiny thanks to the explosion in the quantity and quality of the media. From Godhra to Tehelka, it seems that not much can elude the prying eyes of the press or television. While the accountability of public officials and institutions may not have increased commensurate with the increase in transparency, the disconnect between the two can only narrow in the long run.

Second, a vibrantly assertive civil society, becoming one of the new and key meta-institutions, has been one of the positive developments in the last few decades. Indian civil society has taken on at least two roles: a direct one, in delivering development outcomes and indirect one by striving to hold public institutions accountable. Third, policy liberalization will progressively erode the license-quota-permit raj as a source of corruption and patronage that has had such a corrosive effect on public institutions.

#### **D. Agriculture**

The conventional wisdom is that India is still beholden to the monsoon for its overall economic performance because agriculture accounts for a large share of GDP. Of course, a series of droughts could yet drag down the Indian growth trajectory. However, the inexorable logic of development, and the experience of the last two decades, shows that the hold of agriculture has declined sharply. Between 1980 and 2000, agriculture’s share in GDP has declined by 16 percentage points to about 22 percent. Another 25 years of growth along the lines of the 1990s will shrink agriculture’s share to about 12 percent, further reducing its grip on the economy.

### **E. Fiscal Situation**

Large and widening deficits and the attendant explosion in public indebtedness pose a threat to future stability and growth. India's government debt-to-GDP ratio, at about 90 percent, exceeds that of many of the other emerging market countries, including Brazil and Argentina. Yet, the sense of risk or imminent crisis has not been as acute for India in part because a much larger fraction of debt is held by residents than in these countries. Even so, it is puzzling that rising indebtedness has been accompanied in recent years by foreign capital inflows and *declining* real interest rates. Of course, markets, given their notoriously procyclical proclivities, be understating the risks, with this being the boom phase of the bust that might follow. However, it is worth noting that part of this apparent market sanguineness could stem from a confidence in Indian creditworthiness, which is in turn based on an unblemished record of no-default and low inflation (which is, after all, expropriation by other means). As Reinhart, Rogoff, and Savastano (2003) show, markets set different debt thresholds for different countries, with lower levels set for countries with past records of high inflation or default. The relatively large slack that markets appear to have cut for India may therefore be grounded in the institutional checks in India against instability and expropriation.

### **F. India and China En Passant**

Much has been made of the contrasts and similarities between the recent economic performance of India and China. Some of the motivation for this is plain silly, rooted in a martial conception of economics, and portraying India and China as in some zero-sum game rivalry. Economic growth in China and India and increasing trade by and between them will, of course, be mutually beneficial and positively reinforcing. Nevertheless, there is one interesting contrast that is relevant (and one that has not been made so far) for their future economic trajectories.

Table 3 present a simple regression of income on its deep determinants (institutions, geography, and openness) with China and India dummies added. The really interesting difference is that in 1999 India was an underperformer and China an overperformer given the underlying quality of their institutions, with the disparity especially pronounced in relation to political institutions. What this means is that India's future growth for a long period of time will be relatively "easy" because it will involve a regression or a reversion to the mean.<sup>6</sup>

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<sup>6</sup> India will be merely reverting to the mean, i.e. realizing already-created potential, until its current level of income quadruples, which at a per capita growth rate of 5.3 percent per year will take about 25 years.

China on the other hand has the considerably harder task of having to grow in the future by building its economic and political institutions and having to cope with the shocks that that process will entail. Its political system has to open up, its property regime thoroughly overhauled, and its legal system rewritten. China's economic performance has been running way ahead of its underlying institutional realities, and is therefore much more fragile than India's on that account.

Table 3. How Far Were India and China from Their Income-Possibility Frontiers in 1999?

	Rule of Law	Political Voice
India dummy	-1.33	-1.28
	-4.92	-5.94
China dummy	0.02	1.05
	0.09	3.21
Number of observations	114	114

Note: T-statistics below coefficient estimates.

## VI. CONCLUDING REMARKS

Economic development results from the interaction of growth triggers with fundamentals that allow the triggers to be exploited. In the conventional view of the Indian development process, there was a long and dark period—the period of controls and import substitution—followed by the burst of sunlight and reforms since 1991. The boom in the IT sector first awakened observers to the facts that the dark age was not all dark; important cumulative elements (the fundamentals) were being built up that yielded rewards with a lag; and these fundamentals were as important as the triggers that sparked the IT boom. In this case, the fundamentals were the pools of skilled human capital built up through the technology, management, and research institutes—a sort of import-substitution effort in skilled human capital—that were integral to the Nehruvian vision.

Nevertheless, the Nehruvian economic legacy went beyond the technical institutions: It included the meta-institutions of democracy: the rule of law, free press, and technocratic bureaucracy that recent research shows are crucial to economic development. To be sure, these meta-institutions have been buffeted and weakened over time by the vicissitudes of vested interests, time, and politics. It is also true that the potential created by these institutions went unexploited through decades of misguided throttling of private economic activity. Since the 1980s, however, the shackles on the private sector have been slowly removed, and the appropriate triggers are now in place. The house that Nehru and others painstakingly built before and immediately after independence, wobbles and all, is now poised to seize the newly created opportunities.

By the same token, it is important for India to avoid the mistakes that Latin America made in the 1990s by hastily embarking on an overly ambitious agenda of economic liberalization and privatization that ran ahead of the supporting institutions or the productive abilities of their economies. Economic growth is best sustained by keeping the private sector excited about investing in the local economy. This requires a pragmatic set of policies toward the private sector that combine carrots with sticks, incentives for dynamic efficiency with market disciplines. The knee-jerk reaction of many economists to move as quickly and as broadly as possible in areas such as privatization (especially in infrastructure sectors), labor market reform, and capital-account liberalization has to be tempered with serious empirical analysis and an appropriate concern for social and distributional impacts. The habitual pragmatism and gradualism of Indian policymaking, dictated by the need to manage pluralism and diversity—the organizing principle of the “idea of India”—is here more of an asset than a liability.



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