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CAN INDIA GROW?

CHALLENGES, OPPORTUNITIES, AND THE WAY FORWARD



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ABOUT THE AUTHORS

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Between 1994 and 2004, he worked for Union Bank of Switzerland (now UBS) and Credit Suisse in Switzerland as well as in Singapore. In July 2006, he joined Bank Julius Baer & Co. Ltd. in Singapore as the head of research for Asia. In March 2009, he was appointed as the chief investment officer for the bank. Since July 2011, he has been an independent consultant.

He teaches courses on international economics, exchange rates, and financial markets to graduate students at the Singapore Management University and at the Indian Institutes of Management in Bangalore and Indore in India. His co-authored book, *Economics of Derivatives*, was published by Cambridge University Press in March 2015.

He writes a weekly column for *Mint*, an Indian financial daily, on Tuesdays (accessible at www.livemint.com). He is a regular commentator on global and regional economies for Bloomberg, Reuters, and CNBC.

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In a seventeen-year career, he has been intimately associated with the broad spectrum of development policy design and program implementation—rural and urban development, health and education, infrastructure creation and public-private partnerships, and regulatory governance and public finance. He maintains a top-rated economics and public policy blog, *Urbanomics*, and has been a frequent contributor to leading newspapers in India.

He holds a bachelor's degree in engineering from the Indian Institute of Technology, Madras, Chennai, and a master's in international development from Harvard Kennedy School.

SUMMARY

DESPITE INDIA'S IMPRESSIVE ECONOMIC GROWTH RATES IN THE MID-2000s, the long-term magnitude and sustainability of this progress remains uncertain. India's rapid population expansion requires that the country sustain long-term growth to enable job creation over time. For the country to achieve this enduring trajectory, India must correctly identify the economic fundamentals behind such growth. This should include both short-term, cyclical barriers and long-term, structural impediments that hold it back. Articulating a set of policy priorities and guiding principles that address these issues is the best way forward for India's future economic prospects.

HURDLES TO LONG-TERM ECONOMIC GROWTH

- India's high-growth phase of 2003–2008 had much to do with growth-friendly global economic conditions that have since run their course.
- The country's domestic structural deficiencies—namely poor human resource capabilities; a narrow and predominantly informal industrial base; and a fragmented, low-productivity primary sector—keep a lid on growth and a floor on inflation.

- India also faces formidable long-term headwinds due to premature deindustrialization, the limitations of a services-led growth model, the plateauing of global trade, stagnation in developed economies, and the costs associated with climate change.
- The country's state capacity deficiencies amplify the effects of these constraints.
- These hurdles must be seen in light of favorable tailwinds such as low commodity prices, China's economic slowdown, and India's relative attractiveness as an investment destination.

POLICY RECOMMENDATIONS

Embrace a feasible growth model. Lasting economic progress is best achieved by realistically assessing India's structural impediments and growth potential. The government must accept that sustained growth rates of 8 percent or more are likely out of reach, and it should resist short-term growth strategies that rely on bubbles and fads by instead promising less and delivering more. The government should vigilantly steer clear of both state-led import substitution and overreliance on market-based policy prescriptions.

Prioritize growth-friendly policies. The Indian government should pursue reforms in the areas of higher and lower education; urban governance; housing, land, credit, and labor markets; and infrastructure contracting. It should also seek to shrink the informal economy and expand the tax base, while also improving state capacity and personnel management.

Foster greater federalism. Indian states should be allowed to engage both cooperatively and competitively with the central government and with each other. Proactive bottom-up actions by state governments will be needed to effectively scale up the fragmented agricultural sector and industrial production.

INTRODUCTION

FOR A LITTLE MORE THAN THREE DECADES AFTER INDIA GAINED INDEPENDENCE IN 1947, its growth narrative and growth potential were circumscribed by the logic of self-sufficiency, import substitution, and protection. Internally, the focus was on the gradual development of capacity in the public and private investment sectors.

Those policies, however, eventually reached the limits of their usefulness, and their harmful effects became too obvious to be ignored. Indian industry had become woefully uncompetitive. Agricultural production had begun to stagnate, and the economic growth rate was stuck at around 3.5 percent on average. The next two decades, starting with the 1980s, saw a hesitant liberalization as the pendulum swung in the other direction. These two decades were also marked by excess borrowing, a balance of payments crisis that pushed the country into near bankruptcy, and a banking crisis, all occurring in the late 1980s to early 1990s.

In the third phase, which commenced in the 1990s under then prime minister P. V. Narasimha Rao and his finance minister (and future prime minister), Manmohan Singh, and accelerated after 2000 under then prime minister Atal Bihari Vajpayee, the mantra was high growth and financial liberalization. The latter chiefly meant opening India's capital markets to foreign investors. Deregulation of markets and a reduction in

import tariffs, combined with making the economy more market-oriented, would, it was expected, produce high economic growth. As long as the government balanced the budget and kept the country open to the free flow of goods and capital, the thinking went, economic growth would be inevitable.

In the new millennium, particularly in the decade since 2004, this belief in the inevitability of high economic growth gave rise to overly optimistic projections of returns from infrastructure projects, which spawned highly unrealistic bidding supported by heavy bank lending. When the expected growth failed to materialize, bank and corporate balance sheets became bloated, unable to move forward and thus unable to move the economy forward. Companies became overleveraged and burdened with wasteful investment. They became unwilling to invest further. Banks, especially government-owned institutions, were saddled with nonperforming assets.

Unsurprisingly, high growth expectations are likely to result in a long period of subpar growth, and India's depressed economic picture continued. Though many commentators hoped that the installation of a new government in New Delhi under Prime Minister Narendra Modi in the summer of 2014 would return the economy to a course of near double-digit growth, those expectations have been frustrated. Persistent weakness in underlying economic indicators and the lack of a sustainable recovery to levels experienced before the 2008–2009 global recession have given rise to disappointment. Businesses and opinion makers have become impatient at the lack of “big bang” reforms that would return India to a strong growth path. But such expectations, anchored in part in the memory of China's long period of double-digit growth and in part in India's own brief interlude of similar growth in 2003–2007, fail to take into consideration the powerful domestic and external structural and cyclical growth impediments India faces.

The global background picture of the past quarter century provides context for India's growth expectations and its current uncertain return to a growth path. The world economy experienced stable and high growth for an unprecedented twenty-five years up to 2007, before the global financial crisis intervened. Nowhere were its benefits more evident than in East and Southeast Asia. Apart from domestic enabling conditions, the long period of regional economic growth benefited from a happy confluence of benign external conditions, including favorable geopolitical dynamics (the United States provided geopolitical stability, which also relieved regional economies of defense spending); the high noon of globalization, facilitated by a sharp fall in tariffs; the unbundling of global manufacturing supply chains; the rapid emergence of trade-facilitating technologies, such as containerization and new information and communication technologies; a receptive consumer market in North America and Europe; the availability of abundant cheap global capital; and so on. These trends either are considerably attenuated or have

run their course. But all narratives of India's high growth prospects are significantly predicated on their continuation.

To these leading trends must be added the potential for job loss and job displacement caused by rising automation's disruption of the labor market, which looks increasingly plausible. While automation's immediate effect on India is unlikely to be significant, in the longer term, its potential to disrupt global manufacturing, and thereby the Indian economy, is considerable and worrisome. Therefore, automation is added to the list of trends that the Indian economy will have to negotiate in its quest for growth.

As a South Asian economy, India has been in a position to witness firsthand and to reflect on the economic growth enjoyed by neighboring East Asian economies, but its own growth has often lagged behind its neighbors' for long periods of time. To India, China often epitomizes the East Asian pursuit of growth because the two countries' per capita incomes were roughly similar when China launched its economic reforms in 1979. Thus, China preceded India on the economic development trajectory and has staged its own opening up campaigns; it has also suffered its own corporate and banking balance sheet crisis, which stalled growth—another resemblance to India's path. However, India's experience is sharply distinguished from China's by the pace of change and the consequences for growth: while India may admire China's growth rate, and some Indians may harbor expectations of matching it, the path forward will inevitably reflect India's own economic decisions and national interests.

The Harvard development economist Dani Rodrik turned a careful lens on the differences between China's and India's growth trajectories. In a *Project Syndicate* column, he wrote,

Being the tortoise rather than the hare in the growth race can be an advantage. Countries that rely on steady, economy-wide accumulation of skills and improved governance may not grow as fast, but they may be more stable, less prone to crises, and more likely to converge with advanced countries eventually.¹

Later, in October 2015, in response to a question by his interviewer, Tyler Cowen, as to which of the world's economies was most overrated, Rodrik had this to say:

I think India, because I think the kind of growth that India has had, I don't think it's sustainable. Partly going back to our earlier discussion about premature deindustrialization. I think they have these plans to significantly strengthen their manufacturing base. I just don't see it happening. I think India can grow at 4, 5 percent per year on a sustainable basis. I don't think it's going to be 8 or 9 percent. When this sinks in, I think there's going to be a negative overreaction, would be my fear.²

Taken together, these two observations, from arguably the world's most thoughtful development economist, capture the essence of India's growth problem. Indeed, for India, domestic and international experiences have demonstrated unambiguously that economic growth driven by considerations of self-sufficiency, by lending spurred by overly optimistic assumptions, and by obeisance to financial market priorities is both short-lived and subject to reversion. Dialing back expectations from lofty levels is desirable, for it would avoid wasting resources in the vain pursuit of high economic growth. In an environment where economic growth in advanced economies has stagnated at low levels, such a strategy might entail more costs than it would confer benefits.

Differing from China, India has the potential for a more sustainable and stable period of long, drawn-out economic growth, even if it might not be as high as some would like. That economic growth is best achieved through a realistic assessment of the current potential for growth and of the hurdles that stand in the way of economic growth and prosperity. The hurdles are many and have many dimensions—improvements in education, healthcare, the role of women, state capability, the legal framework, and leadership are needed to provide a strong foundation for growth. But addressing such barriers requires a paradigm shift in economists' understanding of the country's growth drivers and potential. The common misperception that India's demographic advantage would automatically propel its economy to a higher growth path, similar to what East Asian economies achieved in the 1970s and 1980s and emulated later by China, must be acknowledged and replaced.

This report follows a general trajectory of describing India's current historical and economic status, enumerating the barriers to growth, and proposing solutions. The next chapter looks at India's economic growth performance over the decades since independence in 1947, the reforms of 1991, the economic boom of 2003–2008, and the recent bout of high inflation that lasted from 2009 to 2014. The purpose is to understand the prevailing mood of dissatisfaction over India's economic performance and to view India's long-term economic challenges within the frame of policy choices made since independence and the country's growth experience before and after the 2008–2009 global recession. The Indian economy's short-lived, high-growth performance from 2003 to 2007 and its subsequent stagnation reflect the formidable growth hurdles India must surmount.

Chapters 2 to 4 identify the various structural, long-term, and other domestic factors, including the capability of the state, that stand between India and sustained high economic growth. Chapter 5 discusses near-term growth-unfriendly trends, and chapter 6 looks at some helpful short-term developments. If these developments are carefully exploited, they may confer long-term growth benefits on the Indian economy. Chapters 7 and 8 present policy recommendations and process principles that the government

could usefully embrace to enable India to emerge from its low-income, low-growth status, while the final section offers some concluding thoughts.

India's potential to achieve high growth rates is not in doubt. But, first it has to cross the river by feeling the stones, one step at a time before the high growth rate possibility appears on the horizon.

1

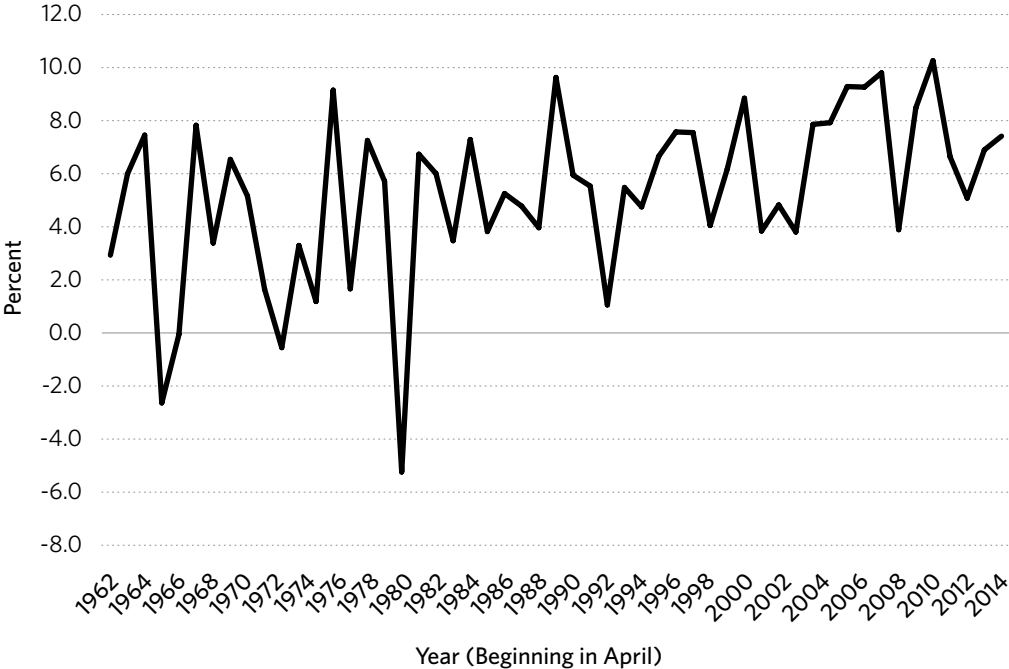
REVIEW OF RECENT ECONOMIC HISTORY

FROM THE EARLY 1960S TO THE END OF THE 1970s, India's economic growth rate averaged around 3.5 percent per annum. World Bank data show that India's real gross domestic product (GDP) growth rate in rupee terms averaged 3.5 percent between 1961 and 1980. In the 1980s, the growth rate averaged around 5.5 percent. But even that modest rate proved unsustainable. Toward the end of the 1980s, India had run up a high fiscal deficit, and the country faced an external funding constraint as well. Its meager export earnings were insufficient to pay for short-term external borrowings. Although the episode resulted in the pledging of India's gold holdings in return for loans from the International Monetary Fund, it paved the way for the removal of the shackles on the Indian economy such as comprehensive industrial licensing, import substitution, and restriction of several items of production for small industries.

In the years that followed India's balance of payments crisis in 1990–1991, Indian policymakers initiated a slew of measures that sought to reduce the role of government in the economy. The industrial licensing regime was largely dismantled. Financial liberalization, too, was undertaken. The Indian rupee was made convertible on the current account, and the dual exchange rate was abolished. The economic growth rate picked up, but growth was uneven, and economic reforms were pursued in fits and starts—and mostly by stealth. The average annual growth rate in the decade of the 1990s was only

around 5.6 percent, not much different from where it was during the 1980s (see figure 1). The growth rate picked up to about 7 percent in the new millennium and continued at that level to around 2008. In the six years since the global recession of 2008–2009, the growth rate averaged about 7.5 percent, mainly because of the massive fiscal stimulus provided by the government in response to the global financial crisis. But that brought in its wake a host of other problems that the economy is still grappling with today. Indeed, in the past twenty-five years, every time India achieved a slightly higher economic growth rate, it was followed by some combination of an external financing deficit, a rise in nonperforming assets in the banking system, a high rate of inflation with consequent currency overvaluation, and other problems. This was the case at the end of the 1970s, at the end of the 1980s, and again in 2012–2013.

FIGURE 1. INDIA'S REAL GDP GROWTH RATE



Note: The Reserve Bank of India's *Real Time Handbook of Statistics on the Indian Economy* has yet to merge data after the base year revision to produce a historical time-series data on real GDP. International agencies such as the IMF and the World Bank have done so.

Source: World Bank metadata for India, accessed on August 23, 2016, from <http://data.worldbank.org/country/india>.

Admittedly, India's situation is not unique. In general, emerging economies, more so than developed ones, are prone to overheating risks because their productive potential and institutional capabilities are still evolving. Latin American nations, with the possible exception of Chile, come to mind. East Asian countries, too, both the so-called Four Tigers (Hong Kong, Singapore, South Korea, and Taiwan) and aspiring economies, suffered an economic crisis in 1997–1998. However, India's performance is especially disappointing because unlike these other countries India does not even reach the lower-middle-income category. Its scores on World Bank human development indicators lag behind those of many other developing nations. The Indian per capita income level was comparable to South Korea's in the 1950s and China's up to the 1970s; both nations have since pulled far ahead of India.

The triad of a trade deficit, nonperforming bank assets, and inflation that has bedeviled India's growth efforts is expressed on many dimensions and produces ripple effects throughout the economy. The fiscal stimulus of 2009–2011 was followed by the strong reappearance of these effects, but they have been notable at other key points in India's economic history as well.

BALANCE OF TRADE DEFICIT

India has been mired in a deficit trade balance for most of the decades since independence, though other indicators have had a better performance. According to data from the Reserve Bank of India (RBI), India's external trade as a percentage of GDP was somewhat healthy in the first few years after the country attained independence (see table 1). It began to decline after that, reaching a low point in the mid-1960s before once again picking up gradually. That trend notwithstanding, India's merchandise trade balance has been in deficit for the most part of the last fifty-five years, as imports have exceeded exports, with a corresponding outflow of foreign exchange.

**TABLE 1. INDIA'S TREND IN EXTERNAL OPENNESS
(AS A PERCENT OF GDP)**

	Merchandise Exports and Imports	Receipts Plus Payments (Current Account)	Total Receipts Plus Payments (Current Account + Capital Account)
1951-1952	15.8	18.5	19.7
1965-1966	7.7	9.9	14.1
1973-1974	7.8	12.1	17.8
1990-1991	14.6	19.4	31.5
1999-2000	20.6	31.2	46.8
2008-2009	40.6	60.6	111.6
2011-2012	43.8	61.5	109.6

Source: Deepak Mohanty, "Perspectives on India's Balance of Payments" (speech, Kalinga Institute of Industrial Technology, Bhubaneswar, India, December 7, 2012), <http://www.bis.org/review/r121210e.pdf>.

Among other policies, import substitution, the requirement for comprehensive industrial licensing, and the reservation of production of many items for the small-scale sector held back the Indian economy from becoming more efficient. Although little is to be gained from reexamining policy choices made in an earlier era by then prime ministers Jawaharlal Nehru and his daughter, Indira Gandhi, to meet different imperatives, it is a fact that those policies had adverse consequences for India's productivity and export competitiveness, keeping the economy unnecessarily vulnerable to external shocks related to trading and exchanges. This state of affairs continues to this day.

The protectionist policies emphasizing domestic production through import substitution had an important side effect. Export promotion, in contrast to import substitution, would have de-emphasized domestic consumption, resulting in higher rates of saving and investment. India's savings rate picked up very gradually, and capital formation in turn was low and slow. Consequently, India did not participate in the huge leap in economic growth and living standards enjoyed by the East Asian economies in the closing decades of the twentieth century. The capital constraint was partially relieved in the early years of the new millennium as both the Indian economy and the world economy enjoyed rapid growth for some time. However, when this growth proved unsustainable, the improvement in India's savings rate stalled. A low and stagnant savings rate combined with a high incremental capital-output ratio put a cap on the noninflationary (that is, nonoverheating) growth rate that the Indian economy could sustain.

NONPERFORMING ASSETS

Episodes of heated growth in India's economy are typically followed by the emergence of a high level of nonperforming assets in the largely public sector–dominated banking system. Nationalization of India's banking system, which began in 1969, will soon reach the half-century mark. A dispassionate analysis would find it difficult to declare nationalization a success story, for large sections of the population remain unbanked. The government's Jan-Dhan Yojana, or People's Money Scheme, a national mission launched by Prime Minister Narendra Modi in 2014 to ensure that all Indians have access to financial services, especially banking services, seeks to address this particular aspect of the more than four decades of failure by government-owned banks.

Among the broader effects of banks' retention of nonperforming assets is a drop in the credit flow to domestic businesses. In particular, Indian agriculture finds itself in a vicious trap. Credit flow to agriculture remains imperfect and is often impaired, owing to various factors, some within the control of farmers, some not. Furthermore, India's wealth inequality is among the world's highest, and the country lacks medium-sized producers—part of the so-called missing middle—in manufacturing; both are testament to Indian banks' inefficient and distorted credit allocation process.

RBI data on nonperforming assets go back only to 1996–1997 but do tell a story. In the three financial years ending March 1995, March 1996, and March 1997, India recorded real GDP growth rates of 6.6 percent, 7.6 percent, and 7.6 percent, respectively. Since the year ending in 1997, India's scheduled commercial banks, and particularly the public sector banks, endured a high ratio of nonperforming assets to gross advances. The ratio was in double digits up to 2001–2002. In 1996–1997 it was 15.7 percent (17.8 percent for public sector banks). The problem has resurfaced since the global financial crisis of 2008–2009.

Restructured corporate loans helped bank management understate the extent of stressed assets. The RBI now reports the total stressed assets in the banking system. It is the sum of gross nonperforming assets plus restructured standard advances. On that basis, the stressed advances of public sector banks were high and rising as of March 2016, when they stood at 14.5 percent of total advances. It is worth noting that private sector and foreign banks had a much lower proportion of nonperforming assets than government-owned banks.

A solution to the problem of stressed assets in the banking system remains elusive, as economic growth is held back by poor global growth, a collapse in commodity prices, and a reduction in global trade flows. Corporations are unable to return to profit and so are unable to service loans. Loan fraud committed by unscrupulous promoters who divert funds from their businesses for personal ends, with or without the connivance of

bank officials, is partly responsible for India's banking crisis. The government, for its part, is constrained to keep an eye on the fiscal deficit ratio in an environment of low growth. Hence, recapitalization is rationed. At the same time, the political environment prevents greater efficiency, an improvement in governance, or consolidation of the banking system.

INFLATION

Household managers know very well that cost-of-living increases erode the purchasing power of their domestic budget and lower their standard of living. They save less and therefore the country as a whole invests less. Like cost-of-living increases, cost-of-production increases weigh on corporate profitability and hence on capital investment by businesses.

Price increases (commonly known as inflation) of all items consumed, whether by households or businesses, have been a persistent problem for India for several decades. Persistently high inflation rates erode the competitiveness of India's manufacturing and exports. Hence, and contrary to certain economic theories, inflation has been the bane of India's economic growth.

India's inflation rate shows little difference before and after the relative opening of the economy in the 1990s. In the fifty-four years from 1960 to 2014, the average inflation rate, measured by the Consumer Price Index for Industrial Workers (CPI-IW), was 7.6 percent, with little difference in average inflation rates before and after 1991. Between 1991 and 1999, bookending the first decade of India's comprehensive economic liberalization, the CPI doubled, for an average annual inflation rate of around 9 percent. Another doubling of the index occurred between 2006 and 2014. Moreover, the volatility of the inflation rate has come down somewhat since 1990, meaning that the inflation rates have stayed high. It is not surprising that inflation expectations remain perched at double-digit levels. The recent decline in the inflation rate was the result of an extraordinary combination of declining energy prices on the international market and declining food prices, and a tepid domestic economic growth environment with subdued pricing power for sellers. The salience or transience of the lower inflation rate will be tested when India experiences even a brief period of accelerated economic growth.

Some effects have already appeared: even as the GDP deflator entered negative territory, India's CPI inflation rate began to creep up. From April to July 2016, the month-over-month inflation rate as measured by the consumer price index was nearly 2 percent. Even though it was explained away as something caused by an increase in food prices, that one-month increase amounts to an annualized inflation rate of nearly 24 percent, and that was in a subdued growth environment. Separately, a *Financial Times* report filed on January

23, 2016, noted that core inflation (the headline inflation rate minus inflation in food and energy prices) globally was near its post-2000 highs.³ The report singled out India as the country most prone to higher inflation in the second half of 2016.

The persistent problems of inflation, stressed assets in the banking system, and a high merchandise (non-oil, non-gold) trade deficit are symptomatic of India's underlying inefficient and unproductive economic structure. Indeed, initially, policymakers felt that the period of high growth that India experienced between 2004 and 2008 was the result of a structural transformation of the economy, with improved productivity and capital efficiency. The construction of the Golden Quadrilateral national highway network came to symbolize this transformation and India's aspirations for economic prosperity. In the end, it proved to be a false dawn. Capital accumulation, more than total factor productivity, had contributed to that growth performance. That is why it ended abruptly in 2008 with the onset of the global recession. India has been unable to reclaim high growth sustainably. The bigger worry is that it may never be able to do so.

To recap, India's high-growth years of April 2003 to March 2008, during which the compound annual growth rate of the economy in real terms was 8.8 percent, was characterized by several critical inputs that were not sustainable. Domestic credit growth averaged 19 percent and exports grew at 26 percent, gross national savings rocketed from 26.4 percent of GDP in 2002–2003 to 36.6 percent of GDP in 2007–2008, and gross capital formation rose from 25.0 percent to more than 38 percent in the same period.

This scorching pace left an overheated economy with signs of excesses everywhere. Inflation averaged 9.0 percent in 2008–2009, up from 4.0 percent in 2003. The current account deficit had swung from a surplus of 1.3 percent in 2002–2003 to a deficit of 2.3 percent in 2008–2009. Infrastructure developers bid aggressively, and public-private partnerships became the flavor of the times. But as a reminder that “this time is no different,” the tide turned. Asset bubbles got inflated. One of the cheerful arguments was that the financial markets were giving their thumbs-up to the sustainability of the Indian growth story and its long-term economic transformation.

History is replete with examples from across the world that show that when credit is plentiful and the economic environment is irrationally exuberant, finance loses its disciplining powers. Indeed, in advanced economies, even as the ratio of government debt to GDP rose from around 30 percent in 1980 to 105 percent in 2014, the yield on their sovereign bonds fell. The financial markets have seldom provided a check on bad economic policies. Investors lend without exercising due diligence, and investments are made more in hope than after objective commercial consideration. Infrastructure is especially vulnerable to such bouts of financing followed by renegotiations and cancellations. No sustained period of growth can be built on such bubbles.

A comparison can be drawn with China, which, despite its allegiance to the Confucian values of prudence and moderation, has not been exempt from unsustainable growth fueled by credit. Its future is arguably more uncertain because the credit boom in China has been entirely state-directed. That makes relying on market mechanisms to resolve the high debt burden and emerging bad debt loan problem in the banking system considerably more difficult. In fact, China's growth prospects are much dimmer than India's precisely because of the enormous accumulation of credit in a short period beginning in 2009 and the government's role in it. China's addiction to credit and recourse to credit growth at the first sign of a growth slowdown have not abated. As Michael Schuman has written:

Take Beijing's often-praised reaction to the 2008 financial crisis. By flooding the country with cash and credit, China pushed growth over 9 per cent through a historic recession. Only afterwards did China's policymakers realise the potential catastrophe they had spawned. Debt exploded to 248 per cent of gross domestic product in 2014, nearly double the level of 2008, according to IHS Global Insight, a consultancy. Unsold apartments and useless factories stacked up across the land.⁴

For any economy, not just one of India's size, a sustained period of high growth requires an almost inexhaustibly large supply of skilled manpower and deep and broad credit markets, a wide industrial base, rapidly expanding infrastructure capacity, and a stable macroeconomic environment. All this must be combined with broad-based income growth, a benign export environment, and political and social stability. On closer examination, the strength of many of these factors in India appears questionable. The following chapter considers each ingredient separately and how much it contributes to or detracts from India's growth prospects.

2

THE MISSING MIDDLE: LABOR AND ECONOMIC GROWTH

INDIA'S FUTURE GROWTH DEPENDS CRITICALLY on the nation's ability to populate its missing middle—the medium-sized producers and middle class of consumers. The greatest number of Indian businesses are small or microenterprises, many operating in the informal economy and not contributing to India's tax base. Agricultural production is hampered by tiny and decreasing farm sizes and by the impracticality of applying technology to increase crop yields.

The causes of the missing middle relate to government policies, such as a growth-stifling regulatory environment; India's large population of individuals living below the poverty line; and, perhaps of most concern for its pervasiveness, poor performance on human development measures. A deficit in education despite a generally adequate number of school buildings and the low participation of women in the paid workforce are two factors contributing to an inadequate supply of skilled workers and low production output. Without a middle class of producers (income earners), there is no middle class of consumers. A 2015 Pew Research Center survey found that less than 3 percent of the total population of India had incomes sufficient to be classified as middle class.⁵ In turn, the poor performance of India on labor market metrics suggests an extended period of drag on the national economy. As India stumbles toward crafting its missing middle, a generation or more is likely to pass before positive effects are felt in the market.

LABOR MARKET CONSTRAINTS: THE HUMAN RESOURCE DEVELOPMENT CHALLENGES

Most discussions of labor market constraints in the context of the Indian economy revolve around growth-stifling labor market regulations. The regulatory regime undoubtedly needs reform, but three larger if less discussed labor market constraints are: the abysmal quality of primary education, resulting in a growing mismatch between the demand for and the supply of skilled workers; a dysfunctional healthcare system; and the very low level of female workforce participation. Ameliorating any one of these would help the economy grow, but these problems permeate the economy and social expectations, and their adamant nature means no easy solution is in sight.

THE NEED FOR EDUCATION AND A SKILLED WORKFORCE

The poor state of India's primary education system, which has now been captured in several learning outcomes assessments, must count as one of the country's biggest development failures. If this problem is not addressed soon, the country's much-vaunted demographic dividend—an increase in economic productivity resulting from a shift in the population structure to more working-age adults with fewer dependents—could well turn into a demographic disaster.

If education were only about schools, about physical infrastructure, materials, and ensuring universal enrollment, then India has succeeded spectacularly. Every large population center has a school; most schools have buildings and teachers assigned; and students have study materials. It was hoped or assumed that once the schooling inputs were in place, education and learning outcomes would somehow follow automatically. But this has proved not to be the case. Lant Pritchett, an education researcher with Harvard's Kennedy School of Government, has evocatively described the situation as “schooling ain't learning.”⁶ And schooling without learning leads to very poor educational outcomes, a finding supported by the 2014 Annual Status of Education Report, the largest nongovernmental household survey undertaken in rural India:

51.9% of Class 5 children in rural India cannot read a Class 2 text; only 25% of children in Class 5 and 46.8% in Class 8 could read simple English sentences; just 25.3% of Class 3 children could do a two-digit subtraction, 26.1% of Class 5 children and 44.1% of Class 8 students could do division.⁷

As the 2009 Program for International Student Assessment (PISA) results indicated, much the same outcomes were found for private and urban schools, and those results were obtained in the two best-performing states in India, Tamil Nadu and Himachal Pradesh. Apart from India placing 72 among 73 countries evaluated by the 2009 PISA,

the shares of fifteen-year-old students attaining the highest levels of achievement in math, reading, and science were so low as to be negligible.

The poor quality of the educational system has direct effects on the quality of the labor pool and on employability. Every year, a semi-employable or unemployable army of 12 million seek entry into the workforce, threatening to turn India's demographic dividend into a demographic curse. Early proponents of the benefits to be reaped from India's anticipated redirection, in the 1990s and 2000s, spoke of a 2 percent boost in India's productivity per annum as a result. That proved to be a fallacy. A 2010 study by the Tata Institute of Social Sciences in Mumbai found that only 10 percent of new graduates and 25 percent of graduates of engineering and MBA programs had adequate skills to be employable.⁸ Numerous other surveys have confirmed the results. Insofar as a generation of the workforce is stuck in this rut, with more of India's youth joining the labor force and seeking jobs in the years ahead, the gap between the demand for and the supply of skilled workers is likely to become more acute.

Ensuring an adequate supply of skilled labor is, for India, a monumental task, but achieving a high economic growth rate is critically dependent on developing a skilled workforce. To achieve and then sustain high growth rates, the country would have to increase the number of its higher education institutions and dramatically improve the quality of existing ones. This would entail finding trained and motivated instructors to work in schools and students of good quality to fill the seats. Beyond these immediate hurdles lies the problem of a dysfunctional education regulatory system. Weak state capability and abysmal school learning outcomes compound these challenges enormously.

THE NEED FOR A WELL-FUNCTIONING HEALTHCARE SYSTEM

An important dimension of human resource development is healthcare, especially affordable preventive and primary care. Unfortunately, as has been documented by numerous studies, India's existing healthcare system is in serious disrepair. It is characterized by dysfunctional primary care, grossly deficient secondary care, overburdened tertiary care, a corrupt medical education system, and a rapacious and largely unregulated private system.

A prolonged period of deterioration in the quality of care provided by public healthcare facilities encouraged the emergence of a large and thriving private care network. As a result, people fled the public system en masse. Today, only the poorest and disenfranchised, those without any other recourse, are likely to visit public primary and secondary care facilities. The picture is compounded by the flight of the better-off to private care facilities, which has enfeebled the public institutions and left them with no demand-side pressures to force accountability.

Inattention to healthcare has contributed to a seemingly intransigent situation; healthcare has never been a politically salient issue in India.⁹ This is reflected in the very low public spending on healthcare, which has remained at about 1 percent of GDP for decades despite commitments from successive governments in New Delhi to devote more funds to public facilities and care. One result of this abdication is that India has one of the highest shares of out-of-pocket healthcare expenditures among major developing countries. Nearly 60 percent of healthcare spending in India is paid out of pocket, and catastrophic health expenses are the largest contributor to poverty. The government-affiliated erstwhile Planning Commission estimated that health problems push 39 million people into poverty each year: 47 percent of hospital admissions in rural areas and 31 percent in urban areas are financed by loans and asset sales, while 30 percent of those needing care in rural India and 20 percent of those in urban areas go untreated because of inability to pay for healthcare.¹⁰

The low level of public spending on healthcare both contributes to and amplifies a quality-of-care problem. As with school education, a rich body of research shows that the primary healthcare system delivers abysmal outcomes. A cross-national observational study of the quality of primary care delivered in three low-income countries, India, Indonesia, and Tanzania, found a shocking level of apathy, lack of knowledge, and low effort. Doctors in India performed the worst with respect to adhering to protocols during the examination of outpatients.¹¹

In recent years, this deterioration in quality has been accompanied by a proliferation of insurance schemes initiated by state governments. These schemes have been extremely popular since the prospect of the poor being able to access hitherto out-of-reach expensive tertiary care at a hospital of their choice, perhaps even at the same facilities as are used by the rich, is laced with deep social symbolism and exerts a strong populist political appeal. The intelligentsia view it as the arrival of a progressive welfare state. Governments view it as a much simpler and easier way to address healthcare issues while avoiding making the messier and politically difficult choices. It has led to a dramatic growth of private multispecialty hospitals that cater to the needs of those enrolled in these insurance schemes. Thus the provision of free choice has had the effect of further drawing patients away from public facilities.

The situation seems to call for better public facilities and at least a stab at more universal coverage, and in 2014 Prime Minister Modi's government did propose a national health plan that would have provided Indian citizens with free drugs, diagnostic procedures, and insurance for treating serious problems. However, the proposal was never implemented owing to budgetary constraints. Moreover, evidence from various states across

the world indicates that doubly universal coverage—coverage for all citizens and for all medical conditions—is simply fiscally unsustainable for a country like India.

Finally, the institutional and human resources edifice of the country's healthcare system is crumbling. The Medical Council of India and similar regulatory institutions remain mired in politics and rife with corruption. Apart from the acute deficiency of personnel, especially in dentistry and nurse midwifery, the quality of medical training has been declining alarmingly.¹²

There are no easy solutions to these problems. The political economy behind many of them presents a formidable barrier to meaningful change. In the absence of far-reaching reforms, including an understanding of healthcare as a public good, a significant attempt to bring down India's outsized contribution to the global burden of infectious disease, and eliminating impoverishment from high out-of-pocket expenses, the expectations of any sustained economic growth predicated on improving national health may remain just that.

THE NEED FOR GREATER FEMALE WORKFORCE PARTICIPATION

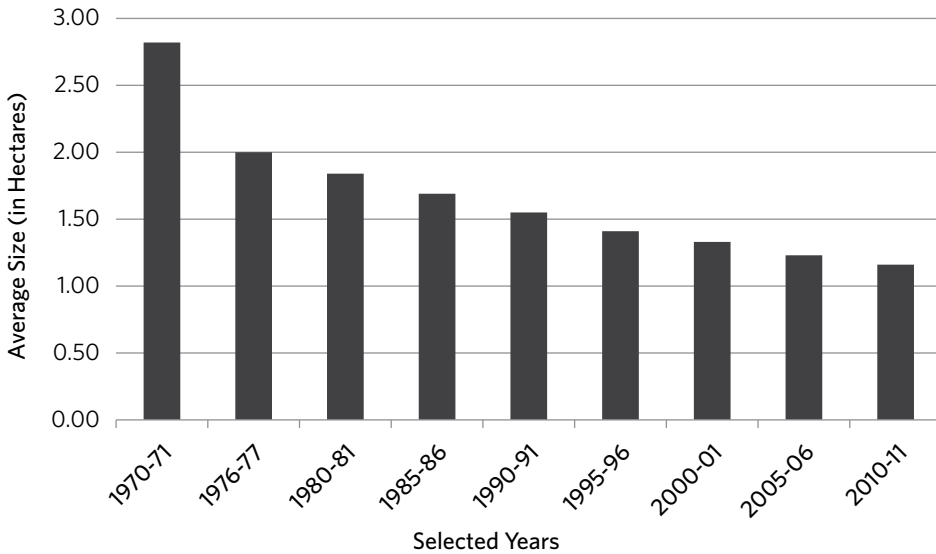
A third major labor market deficiency is the country's shockingly low female workforce participation rate. At 24 percent in 2014, it was comparable to levels in the Middle East and North Africa, and just half that in Indonesia. A 2015 report from the McKinsey Global Institute showed that the female contribution to India's GDP, at 17 percent, is the lowest in the world among a sample constituted of countries and regions, and less than half the global female share of GDP at 37 percent.¹³

The report estimates that if India did as well as the best-performing country in South Asia on this metric, by 2025 its incremental output would be higher by 16 percent, or \$700 billion. But this would require, even more than enabling public policies, a social transformation on a scale equivalent to that which led to the weakening of caste barriers in Indian society in the latter part of nineteenth century and the early twentieth century.

AN UNPRODUCTIVE AGRICULTURAL SECTOR

The missing middle is a problem that afflicts India's farming sector as well as its industrial sector. Around 85 percent of India's farms are small to marginal, and less than 1 percent are large (above 10 hectares). The average size of all farms in India is only 1.16 hectares, a figure that has declined steadily from around 2.82 hectares in 1970–1971 as family farms have been subdivided (see figure 2).

FIGURE 2. INDIA'S DIMINISHING FARM SIZE: AVERAGE SIZE OF OPERATION HOLDINGS ACCORDING TO DIFFERENT AGRICULTURE CENSUSES, 1970-2011



Source: Ministry of Agriculture, *State of Indian Agriculture 2012-13* (New Delhi: Government of India, 2013), [http://agritech.tnau.ac.in/ta/pdf/2013/State%20of%20Indian%20Agriculture%202012-13%20\(English\)%20with%20cover.pdf](http://agritech.tnau.ac.in/ta/pdf/2013/State%20of%20Indian%20Agriculture%202012-13%20(English)%20with%20cover.pdf).

This fragmentation of farmland has contributed to India’s low level of agricultural production. Moreover, growth in yield per hectare has slowed considerably since the start of the new millennium: small farm size does not lend itself to the application of yield-increasing technology, improved production methods, or even monetization. According to the Finance Ministry’s *Economic Survey 2014–15*, even India’s best yield is well below the best in the world.¹⁴

INDUSTRIAL BASE: SMALL IS NOT BEAUTIFUL

India’s industrial base, even the entire nonfinancial business landscape, is dominated by micro- and small enterprises. In 2012, microenterprises (with investment below 2.5 million Indian rupees, or INR, equivalent to around \$40,000) made up 94.9 percent of the registered micro-, small, and medium-sized enterprises (MSMEs) in manufacturing and 70 percent of the employment.¹⁵ Proprietary enterprises accounted for 94.5 percent of all MSMEs and public limited companies for just 0.28 percent. Of the 261 lakh (26.1

million) enterprises (both in manufacturing and in services), 52 percent are rural, and about 71 percent of those do not use any electricity.¹⁶

In 2013, 793,446 enterprises were registered with the Ministry of Corporate Affairs, of which 92.7 percent were private limited companies. Private limited companies have fewer disclosure requirements and governance standards than public limited companies. This number included 705,733 nonfinancial companies, of which just 2,776 (or 0.4 percent) had paid-up capital above INR 25 crore (INR 250 million, equivalent to \$4 million), and only 51,484 (or 7.3 percent) had paid-up capital above INR 1 crore (INR 10 million).

A comparison with the number of nonfinancial enterprises in the other BRIC countries—Brazil, Russia, and China—and their turnover ranges exposes India’s rather narrow industrial base (see table 2), with the majority of industries compressed into the lower growth stages.¹⁷

TABLE 2. INDIA’S NARROW INDUSTRIAL BASE

Sales Turnover	Brazil	Russia	India	China
Under \$2 million (early stage)	660,000	1,760,000	760,000	12,400,000
\$2-\$25 million (small corporations)	415,500	258,500	99,000	195,500
\$25-\$125 million (mid-sized corporations)	1,235	14,100	10,200	34,250
\$125-\$500 million (large corporations)	750	2,600	240	6,900
Over \$500 million (super-large corporations)	545	830	30	780

Note: These are the estimated numbers of investable private companies by sales turnover. They exclude public sector undertakings and government enterprises.

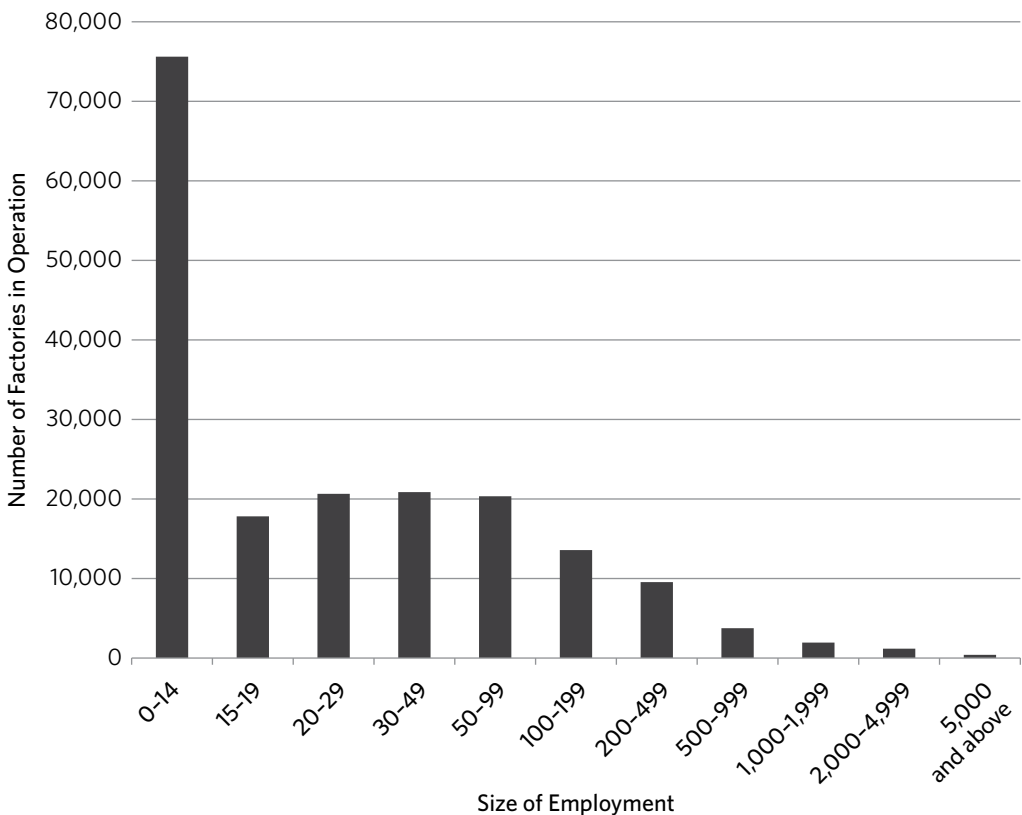
Source: Vivek Pandit, Toshan Tamhane, and Rohit Kapur, *Indian Private Equity: Route to Resurgence* (New York: McKinsey & Company, June 2015), exhibit 2.1.

This trend is mirrored in the wider pool of economic activities. As a measure of all nonsubsistence economic activity, the *Sixth Economic Census (2012–13)* identified 58.47 million establishments.¹⁸ They employed 127.7 million people, reflecting a decline in the number of people per establishment from 2.35 to 2.18 since 2005. Of the 58.47 million establishments, 11.98 million (20.47 percent) did not have any physical premises, and 22.44 million (38.4 percent) were operated out of homes. Only 1.2 million enterprises

contributed to employer-based pension plans and 1.1 million to employer-based health insurance plans and were formally registered as companies.

The government’s *Annual Survey of Industries 2013–14* found that of the 185,690 factories in operation, just 1.9 percent employed more than 1,000 people, and 73.2 percent employed fewer than 50 people (see figure 3).¹⁹ Factories employing more than 1,000 people made up 46.63 percent of the total fixed capital employed and 41.24 percent of the total output, whereas the smallest factories, which employed nearly three-fourths of the labor pool, accounted for just 7.06 percent of total fixed capital and 11.18 percent of total output. As a measure of total cumulative capital invested in plant and machinery,²⁰ though 91.31 percent belonged to the MSME category, collectively they accounted for only 13.1 percent of the total fixed capital employed, and they contributed just 27.03 percent of the total output.

FIGURE 3. DISTRIBUTION OF FACTORIES IN OPERATION BY SIZE OF EMPLOYMENT, ALL OF INDIA



Source: Ministry of Statistics and Programme Implementation, *Annual Survey of Indian Industries 2013–14* (New Delhi: Government of India, April 2016).

The picture revealed by these figures is concerning. The number and proportion of small and microenterprises are staggeringly high. Their contribution to output and employment is infinitesimally small. Yet romanticism in policy circles with micro and small has endured far longer than is justified by their economic value added. Small has not been beautiful, as the capital and labor locked up in these unproductive enterprises represent lost economic opportunity.

Furthermore, most such enterprises are informal and operate beneath the radar of tax authorities and other regulators. Of the 261 lakh MSMEs in the Fourth All India Census of Micro, Small, and Medium Enterprises (2006–2007),²¹ more than 52 percent were unregistered. No matter how forceful the argument is, the facts speak louder and more clearly. India's industrial base has a gaping hole in the middle. Specifically, India has a preponderance of microenterprises and a tiny set of large enterprises. It has neither small nor medium-sized enterprises.

All this assumes great significance in light of the overwhelming evidence that usually jobs are created and output is generated by firms that start small, in the formal sector, and grow large over time. In India, this dynamic is turned on its head. Most Indian firms start in the informal sector and never grow or, worse, diminish in size over time: according to a 2013 International Finance Corporation study comparing the size of thirty-five-year-old firms in India, Mexico, and the United States with their size at start-up, in India the size had declined by a fourth, in Mexico the size had doubled, and in the United States the firms were ten times as large.²² That is deeply troubling. As firms age, they are expected to get larger and to employ more people. Since India's experience is orthogonal to this expectation, something in the Indian business ecosystem is badly broken.

A growing body of research underscores that the misallocation of resources—whether capital, labor, or public support—across firms is an important contributor to the persistence of low firm productivity. Chang Tai-Hsieh and Peter Klenow suggest that 40–60 percent of the total factor productivity differential between firms in India and the United States is the result of misallocation of resources and capital among the millions of micro- and small enterprises in India.²³

In any case, neither microcredit nor micro-entrepreneurship propels societies into higher incomes. Financial inclusion and other forms of state support for microenterprises should be aimed at helping them grow from their small beginnings, not at keeping them there. Without getting into the causality debate, it is pertinent that higher incomes always correlate with wage employment intensity. It is no surprise that while just one in nine working Americans is self-employed, nineteen out of twenty Indians are self-employed. For a comparison with a developing economy, while two-thirds of workers in Mexico's Nuevo Leon state are employed by private incorporated businesses, just one in

seven is in Chiapas state, and this difference in employment structure is associated with a nine times per capita income differential in favor of Nuevo Leon.²⁴

A statistical update on employment in the informal economy published by the International Labor Organization in 2012 showed that India has one of the world's largest informal sectors.²⁵ At 83.6 percent, the share of informal employment in the country's overall nonagricultural employment total is the highest in the world. Furthermore, India's labor force participation rate is one of the lowest in the world. Only Egypt and Honduras fare worse.

A report published jointly by the International Labor Organization and the World Trade Organization in 2009 had a stark message for India: "Countries with large informal economies tend to experience more frequent growth crises and extreme growth events.... Even though growth acceleration may occur more frequently in countries with larger informal economies, the risk of sudden stops and economic crises is also significantly larger in these countries, preventing sustainable long-run economic expansion. It should be noted that this ... does not causally link the two phenomena but suggests an empirical regularity."²⁶

India must address its missing agricultural and industrial middle if it is to avoid sudden stops and economic crises and to make headway in manufacturing and farming. Without these sectors, there will not be jobs for the millions of young people seeking entry into the workplace each year. If the demographic bulge becomes a bulge of the under- and unemployed, it will have dire implications for social stability and national security. It used to be thought that the solution was to liberalize the labor laws that discouraged hiring because they made shedding labor difficult. But that is only a partial answer; more aggressive solutions are needed.

A quick tour of the historical reasons for India's highly fragmented, inefficient, and anti-employment production structure in farms, factories, and enterprises may provide some clues to tackling the root causes of the missing middle. Before independence, India's colonial rulers snuffed out enterprise by exporting India's raw materials to nurture businesses in their own countries. The capacity to create and nurture big businesses in the private sector in sufficient numbers has never been achieved since the state occupied the commanding heights of the Indian economy in the first three decades after independence. Moreover, the postindependence legal and regulatory framework favored small businesses: the production of certain items was reserved for small-scale industries, and labor protection was emphasized rather than efficiency and scale. Because of India's experience of being ruled by a foreign trading company, a suspicion of big businesses still lingers. Many other reasons for the missing middle could be adduced in connection with India's economic context at the time of independence.

A few steps have been taken toward increasing efficiency and scale. The reservation of production for small-scale industries has now been fully removed. Firms have figured out how to overcome the constraints imposed by labor market regulations through hiring temporary and contract workers, though that is not the same as having a committed and productive workforce of employees. The accumulation of learning and knowledge in the labor force is not possible with temporary and contract labor. Hence, labor market regulations may still act as a tether constraining firms' growth.

Scale may prove more difficult to achieve than efficiency. The dearth of qualified and skilled labor has emerged as a serious impediment to the growth of several micro- and small manufacturing enterprises. If only 2 percent of the labor force is formally skilled, as noted in the Indian government's *Economic Survey 2014–15*,²⁷ that is not just a problem but a national emergency, one that poses an enormous challenge for India's economic future.

Rather than incrementalism, a characteristic of some of the changes just discussed, more radical steps and an overhaul of India's regulatory environment may be warranted. The *Economic Survey 2015–16* raises the Chakravyuha challenge, a metaphor for India's twenty-first-century economy, derived from the Chakravyuha legend of the Mahabharata. The challenge refers to the ability to enter the marketplace but not exit, with serious adverse consequences. The survey introduces the legend to describe the Indian economy's gradual transition over the past six decades as it moved from "socialism with limited entry to marketism with limited exit."²⁸ Its point: firms need much greater exposure to the dynamism of the market, both at entry and exit, through a far less overbearing and costly regulatory environment. This would help create the market conditions that encourage firms to start in the formal sector, allow unimpeded growth, and force exit when necessary.

THE MISSING MIDDLE CLASS OF CONSUMERS

If India's agricultural and industrial output is hobbled by a fragmented production structure and a missing middle, the same is true of India's consumption market. India's middle class is often touted as its biggest strength. Sadly, the "middle" is missing here, too. The conventional narrative concerning India's growth prospects is spun around a hypothetically existing or soon arriving middle class some 200 million to 300 million strong. But a considerable and growing body of evidence, including official government statistics, indicates it may be a long time before those numbers are realized.

A 2014 report by the McKinsey Global Institute defined an empowerment line as the minimum per capita income required to meet eight basic needs at a level sufficient to achieve a decent standard of living, and it estimated that 56 percent of the Indian population lacked the means to meet their essential needs.²⁹ It found that 90 percent of the population could afford a per capita monthly consumption expenditure of just INR 2,800 per month, or about \$560 per annum (at a conversion rate of INR 60 to \$1).

A Pew Research Center income survey found that in 2011, less than 3 percent of the total population, or 37 million people, had incomes above \$10 per day, or enough to be classified as middle class. The government of India's *Socio-Economic and Caste Census 2011* found that in three-fourths of the country's 179.1 million rural families, the highest-earning member brought home less than INR 5,000 every month, or \$1,000 annually.³⁰ These numbers are corroborated by the country's tax assessor numbers.

A country's consumer base is defined by its middle class. In India's case, the contrast with China is staggering. Data from BMI Research show that in 2014, per capita spending by those in the middle 60 percent of the income distribution was estimated at \$4,036 in China, 5.5 times India's \$735, a level that China reached at least eleven years earlier. In 2012 an estimated 192 million Chinese households had an annual income above \$10,000, a rough measure of the middle-class threshold, compared to just 24.5 million Indian households, and again, China had reached that figure well before the turn of the millennium. At the top end of the income ladder, per capita spending by the richest 10 percent of Chinese in 2014 was \$14,555 to India's \$2,626.³¹

Finally, Credit Suisse's *Global Wealth Databook* for 2015 found similar patterns. It found that India's middle class numbered just 24 million households, less than one-fourth of China's 109 million, one-seventh of the Asia-Pacific region's 171 million, and only slightly more than Africa's 19 million. In addition, it found that 95.4 percent of Indians had wealth below \$10,000, a far higher share than the global average of about 70 percent. The share of the population with higher incomes was essentially negligible.³²

It was recently reported by the *Wall Street Journal* that the leading global fast food chains, which entered the Indian market with expectations of decades-long high growth rates, have hit a wall, with declining sales growth.³³ Their expectations, possibly based on models of a China-type massive middle class, were unlikely to have been realized.

3

RAISING FINANCIAL RESOURCES

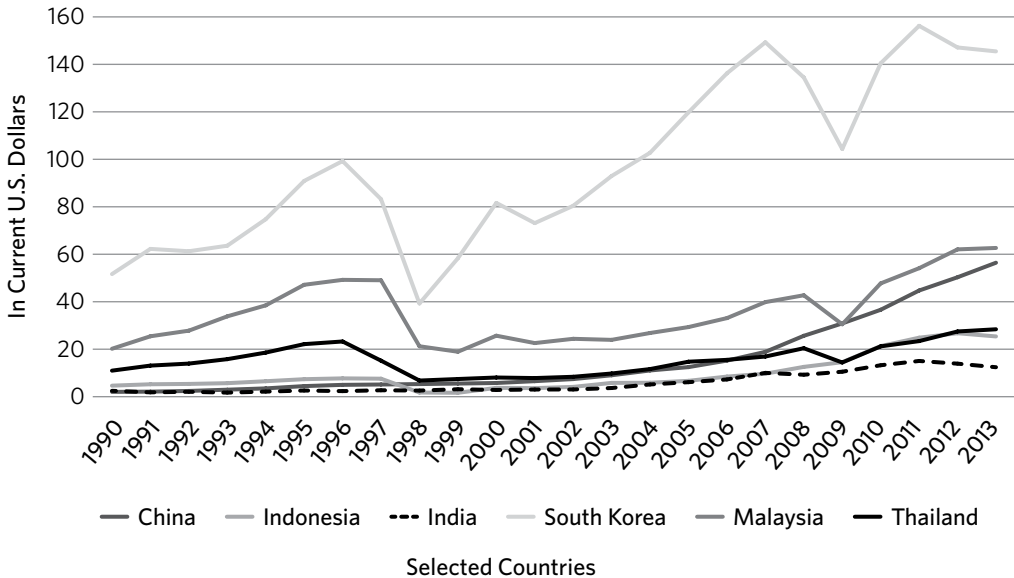
IN ADDITION TO THE PRODUCTION AND CONSUMPTION CHALLENGES INDIA FACES in trying to improve its economic growth, finances and the regulatory environment pose their own impediments. The financing constraints on growth in all their aspects—the low savings rate, low investment rate, shallow credit markets, a banking sector in need of reform, and the low tax base of the state—merit a closer look.

THE CAPITAL ACCUMULATION CHALLENGE

One of the more egregious stylized features of economic development, evident recently among East Asian economies, is the role of increasing capital accumulation. For example, during their periods of high growth, several East Asian countries had very high savings rates, which were intermediated toward financing capital investments in infrastructure and manufacturing. Rapid growth was facilitated by the accumulation of capital and its investment to expand the production possibility function toward that of the developed economies. While other factors undoubtedly contributed to these economies' sustained high growth rates, capital accumulation has also been a proximate determinant in all high growth periods.³⁴

In India's case, the savings rate and capital formation rate have both been in decline, a trend that started even from a level below the one reached by the East Asian economies during their high-growth phases. This is reflected in the low and declining gross capital formation per worker in India in recent years compared to that of its East Asian peers (see figure 4).

FIGURE 4. GROSS CAPITAL FORMATION PER WORKER, 1990-2013



Source: World Bank, World Development Indicators database, accessed October 2015, <http://data.worldbank.org/data-catalog/world-development-indicators>.

The economic historian Robert Allen has documented India's capital accumulation shortfall. He writes, "Between 1860 and 1990, it [India] accumulated little capital and achieved little growth. Its capital-labor ratio in 1990 (\$1,946) and labor productivity (\$3,235) were like Britain's in 1820 (\$1,841 and \$4,408, respectively)."³⁵ Comparing the development trajectories of seventeen countries in the 1820–1990 period, he argues that developing countries such as India "need to accumulate capital in the massive way that East Asian economies have done since 1960 in order to close the gap with the West." That gap is a huge one to close.

Unfortunately, India is constrained by its low savings rate and narrow capital base, both of which constrain it from generating the capital required to sustain a high economic growth rate for a sufficiently long period. Four dimensions of this problem—the savings rate, credit markets, taxation base, and infrastructure financing—bear examination.

LOW SAVINGS-INVESTMENT EQUILIBRIUM

Any economy, large or small, needs a massive mobilization of resources, especially in its initial years of catch-up growth. India is disadvantaged in this respect because its very low tax base is a strongly binding constraint on resource mobilization for governments.

As much as governments need tax resources, the private sector needs large volumes of savings, intermediated through various financial institutions, to finance its investments. One of the pillars of the success of the East Asian economic model is the mobilization of very high domestic household savings. During their long high-growth periods, East Asian economies enjoyed gross domestic savings (GDS) in excess of 40 percent of gross domestic product.

Most East Asian nations had small economies when they set out on a growth trajectory, and so they chose to become open economies with an emphasis on exports. Small economies overcome their size deficiency by building global-scale production, which can be viable only through exports. To encourage exports, a country needs to consume less domestically. That naturally results in more savings. These countries also practiced financial repression, which channeled savings into areas desired by the government. Financial repression is the denial of opportunities to savers to invest their savings to earn a market rate of return on their investments. Countries engage in that to lower the cost of capital to facilitate capital formation in the economy. Like some of its East Asian neighbors, India has practiced financial repression, and still does, but mostly in the service of government consumption.

Their desire to grow through exports meant keeping up with global quality standards, lowering consumption, promoting higher savings, and increasing investment, and by these means achieving higher economic growth. It is important to know why China in particular followed this path, for China was not a small nation. China chose to prioritize investment and exports because doing so would enable it to achieve a high rate of savings, which in turn would mobilize capital on the scale needed to achieve higher standards of living for hundreds of millions of people within a generation. China's current problems with debt and economic growth may be formidable, but they are recent. For nearly three decades starting with its opening up in 1979, it achieved real economic growth and prosperity.

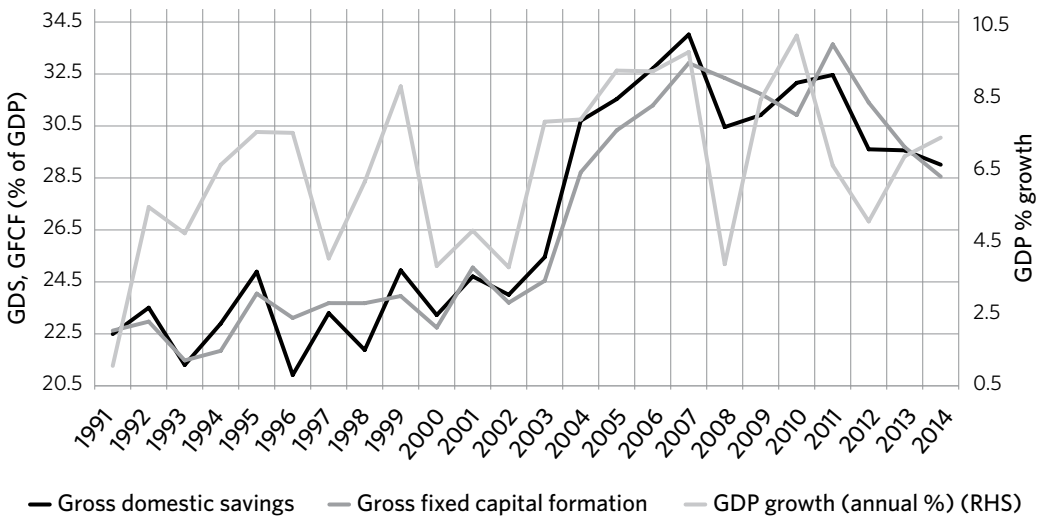
India's GDS rate had risen to a high of 36.8 percent of gross domestic income in 2007–2008 as per the old GDP calculations with a base year of 2004–2005. However, in 2015 India switched to a new base year for national income, savings, and investment calculations. Historical data with the new base year are not yet available. In any case, it is correct to say that the savings rate had declined since that peak in 2007–2008 and has

stagnated at around 32 to 33 percent of gross national domestic income from 2011–2012 until 2014–2015, the latest year for which data are available. This figure does not accurately reflect the extent of savings available for intermediation since the amount of investable savings is lower. The brokerage firm Nirmal Bang recently estimated that the gross financial savings (GFS) of Indian households declined to a twenty-five-year low of 9.8 percent of GDP in the financial year ending March 2015.³⁶ Insofar as bank deposits form nearly half of all financial savings and equity market investments just 4 percent of GFS, and because incremental bank deposits have been declining in recent months, the brokerage expects the GFS to continue falling in 2015–2016.

Underlining the lower expectation of GFS going forward, Credit Suisse’s *Global Wealth Report 2015* points to a very low level of financial wealth among Indian households.³⁷ It estimates the average household’s financial wealth to be just 13 percent of total household wealth, lower than among peer economies.

India’s declining savings rate has mirrored a similar sharp decline in the country’s gross fixed capital formation (GFCF). The fall in GDS and the resultant decline in GFCF coincided with the transition to a lower growth trajectory (see figure 5).

FIGURE 5. INDIA'S INVESTMENT, SAVINGS, AND GROWTH, 1991-2014



Source: World Bank, World Development Indicators database, accessed August 2015, <http://data.worldbank.org/data-catalog/world-development-indicators>.

In contrast, China’s spectacular growth story was underwritten by the country’s high savings rate, which rocketed beyond 50 percent of GDP in the past decade. Its GDS rate today is about 50 percent larger than India’s, and its GFCF is nearly 20 percentage points

higher. Furthermore, even as India's savings rate has been declining, China's savings rate shows no signs of weakening. In light of the vastly different contexts, it appears unlikely that India can come near the savings and investment rates achieved by China.

Even India's current savings rate is deceptive since the share of household savings locked up in illiquid and unproductive investments such as real estate and gold has grown in recent years.³⁸ A study from Credit Lyonnais Securities Asia, a group of brokerage and investment houses focused on institutional services and asset management, found that as of the end of 2012, land and gold together made up 71 percent of all household assets.³⁹ The limited market for housing mortgages and gold funds means that savings in these forms contribute very little to India's investment needs, and the share of equity and other nonbank financial investments is marginal. This is in sharp contrast to global trends, which show the bulk of savings invested directly in financial assets.⁴⁰ The investment proclivities of Indians therefore shrink the pool of savings available for investments.

Thus another challenge emerges. High growth rates cannot be sustained without high investment rates, but high investment rates require a high domestic savings rate. The alternative, namely, to use foreign capital, risks creating large current account deficits, which would leave the country vulnerable to sudden stops of capital inflow and capital flight.

India, it appears, is trapped in a low-level equilibrium. Problems of access, volatility in equity markets, limited liquid fixed income savings instruments, and a grossly underdeveloped insurance market have kept investors out of the financial markets. Furthermore, the inflation tax has been a big disincentive to investing in financial assets. In contrast, thanks to recurrent booms, and for historical reasons, land and gold have appeared to be relatively attractive investment options. Their allure is amplified by the attraction of their being safe conduits to stash away black, or ill-gotten, money as well as avoid taxes. In turn, this self-reinforcing savings-investment channel is a formidable deterrent to the emergence of a deep and broad financial market. Therefore, India must not only increase its domestic savings rate but also take measures to limit the distortionary savings misallocation by developing more effective financial intermediation channels.

India's high-growth episode in the last decade (2000–2010) was characterized by gross fixed investment contributing 4 to 5 percentage points to GDP growth. In the aftermath of the worldwide recession of 2008–2009, the contribution of gross fixed investment crashed and has not recovered. In its absence, high rates of sustained economic growth are not plausible.

As a simple rule of thumb, since 1997, a 1 percentage point contribution of GFCF to GDP growth has been associated with a 3.56 percent growth in GFCF. If this relationship still holds, a 4 percentage point contribution of GFCF to GDP growth would

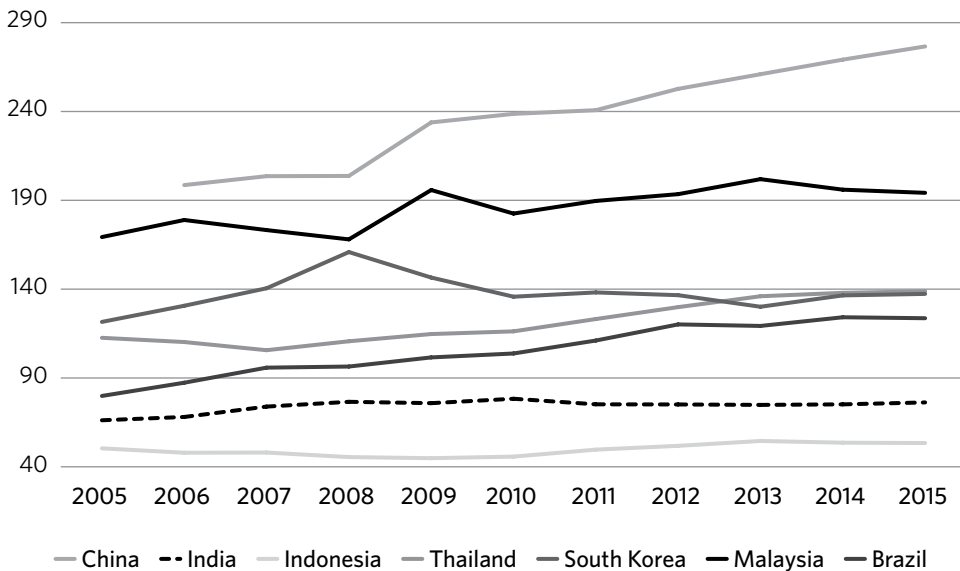
require an annual GFCF growth of 14 percent. However, GFCF has been growing at a crawling pace of 3 to 5 percent in the past four accounting years, up to March 2016.

In simple terms, consumers have to save more (and spend more, too) and businesses have to invest more, thereby generating a virtuous circle that can sustain a high-growth trajectory. In the face of formidable headwinds—high interest rates, a high inflation rate, deficient infrastructure, weak global cues, and bruised bank balance sheets—the prospects for either look bleak.

SHALLOW CREDIT MARKETS

To sustain high growth rates, the domestic credit markets have to be large and broad enough to intermediate savings and meet the major share of the country's investment needs. But India's banking sector as a share of its economy is very small compared to that of its peers. Furthermore, it has been stagnant at about 75–80 percent of GDP since 2007 (see figure 6). At one level, it is not bad, as an excessively large banking sector is a source of systemic risk. However, India's lags behind even its developing economy peers' banking sectors in size. This small size is reflected in the M2 money supply, which is easily the lowest among major emerging economies.

FIGURE 6. BANKING SECTOR ASSETS



Source: BMI Research's Data and Forecasting, accessed September 2015, <http://www.bmiresearch.com/platform>.

The total incremental nonfood bank credit in 2014–2015 was INR 5,463.84 billion, an increase of 9.27 percent. After including all nonbank financing (capital markets, commercial paper, bonds issued by public sector entities, and disbursements by public financial institutions), the total incremental nonfood credit flow increased only marginally, to INR 6,383.31 billion, or a growth rate of 10.56 percent for 2014–2015. This small increase in the growth rate highlights the limited role of capital markets in the country's financial intermediation system.

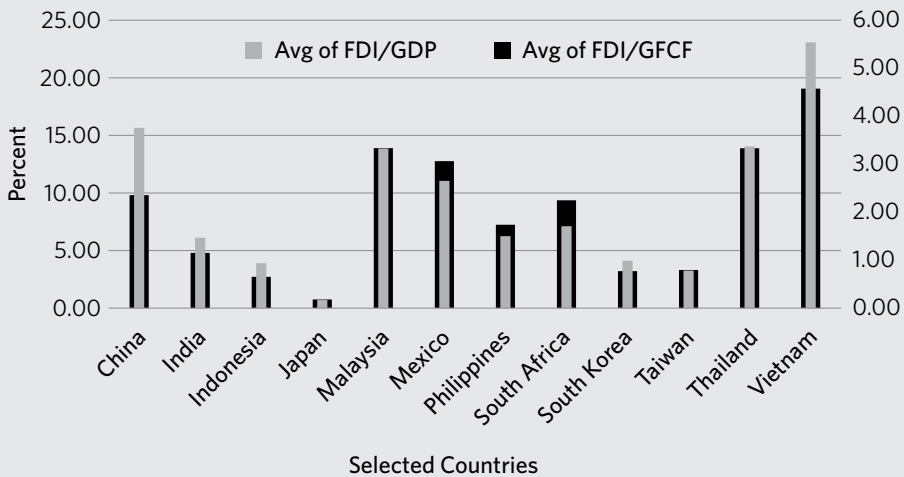
Compounding the structural problems, investment and credit growth have fallen precipitously since the start of the worldwide recession. The decline in gross fixed investment has been alarming: it fell sharply from 33 percent in 2007 to just above 27 percent (estimated) for 2014. In the 2008–2014 period, credit growth was nearly halved from its peak in 2008.

FOREIGN DIRECT INVESTMENT: A CREDIT SUPPLEMENT BUT NOT A DRIVER

A *Financial Times* report that India had claimed the pole position as global foreign direct investment (FDI) destination for the first half of 2015 generated much cheer across the country.⁴¹ It appeared to be a just reward for the government's aggressive courting of FDI over the previous year and half. On a more realistic note, it raises the question of whether FDI can make up for the country's massive investment deficit.

For a sample of eleven emerging East Asian economies, excluding Singapore, the average rate of annual FDI inflows as a share of GDP in the 1997–2014 period was 2.18 percent, with very low dispersion (see figure 7). The similar average as a share of GFCF was 8.4 percent, though it ranged from 10 percent to 20 percent for Malaysia, Thailand, and Vietnam. Over the more than two decades of China's rapid growth, annual FDI inflows as a share of GDP never rose above 4 percent and as a share of total fixed investment peaked at about 11.6 percent before declining to about 8 percent. For India, the respective figures for 2014 stood at 1.65 percent of GDP and 5.75 percent of GFCF, and averaged 1.47 percent and 4.80 percent over the 1997–2014 period.⁴²

FIGURE 7. AVERAGE ANNUAL FDI INFLOWS AS SHARE OF GDP AND GFCF, 1997–2014



Source: Economist Intelligence Unit, countries' metadata, accessed August 2015, <http://www.eiu.com/home.aspx>.

The country's total annual incremental nonfood bank credit as a share of GDP peaked at 8-11 percent in the high-growth period of 2003-2008, only to fall back to around 6 percent in recent years.⁴³ In recent years, including the high-growth years, FDI has been no more than 20 to 25 percent of the total incremental credit.

Optimistically, assuming that FDI inflows average 4 percent of GDP (or \$80 billion for 2015, well above the actual net FDI inflow of \$48.2 billion into India for the year 2015-2016, as per RBI data) and 10 percent of GFCF over the coming ten years for India (both figures being higher than China's over the 1997-2014 period) implies FDI inflows, at current credit volumes, would account for about 40 percent of India's total incremental credit market. Apart from the difficulty of achieving such growth in times of global economic weakness, the effects of massive inflows on macroeconomic stability and the exchange rate, given the very narrow financial markets and limited domestic credit base, are not likely to be benign.

In 2007-2008, India had a balance of payments surplus of more than \$92 billion. The capital account balance was \$106.6 billion. India was not able to absorb it well. Bubbles popped up in asset markets. Bad investments were made, and capital misallocation was rampant. The inflation rate spiked up, and the INR became over-valued, despite intervention. That is why when the global recession struck in 2008, India felt the shock. Had India channeled the capital flood well, its potential growth rate would not have dropped after the crisis and the country would not be struggling to get back on track.

Though India has not managed to attain a similar high level of balance of payments surplus since then, its combined net investment flows have been respectable. In the year ending March 2015, net investment inflow was on the order of \$73.5 billion (this figure came down drastically to \$31.9 billion in 2015–2016 due to portfolio outflows). Yet official statistics aside, many economists peg India’s economic growth rate at or slightly above 6 percent for 2014–2015.⁴⁴ That judgment reflects India’s inability to turn investments into output and inputs into production. India’s land, labor, and capital productivity and its total factor productivity are too low for a growth takeoff to happen.

This discussion is not intended to serve as an argument against FDI. Technological benefits, a culture of innovation, and an enhanced ability to meet competition are clear benefits of FDI. Two points should be stressed, however: first, the country is ill-equipped to absorb and gainfully deploy vast sums of FDI, and second, the historical experience of other countries, including those that received generous FDI, suggests that total FDI inflows would not exceed 4 percent of GDP. Therefore, increasing the domestic savings rate is a growth and policy imperative for India.

INADEQUATE TAX BASE

Apart from being the platform to support economic activity directly, a broad industrial base and a large middle class contribute to the tax revenue required to create infrastructure assets and deliver various public services. The narrow industrial base and limited pool of middle-class taxpayers is nowhere reflected more starkly than in the country’s very low tax-to-GDP ratio. India has one of the lowest ratios among the G20 countries—far lower than Brazil’s, for example.⁴⁵

Despite India’s large population, the country’s income tax base is comparable to that of a small European country. In 2012–2013 there were just 31.19 million assesseees, or less than 3 percent of the 1.2 billion population,⁴⁶ in contrast to 147 million assesseees in 2013 among 316 million people in the United States.⁴⁷ Of the 31.19 million, 17.61 million, or more than half, were public sector employees.⁴⁸ Almost 98.28 percent of the 31.19 million had incomes of less than INR 0.5 million (or \$10,000), only 0.8 percent had incomes of more than INR 1 million, and just 18,359 had incomes in excess of INR 10 million.⁴⁹

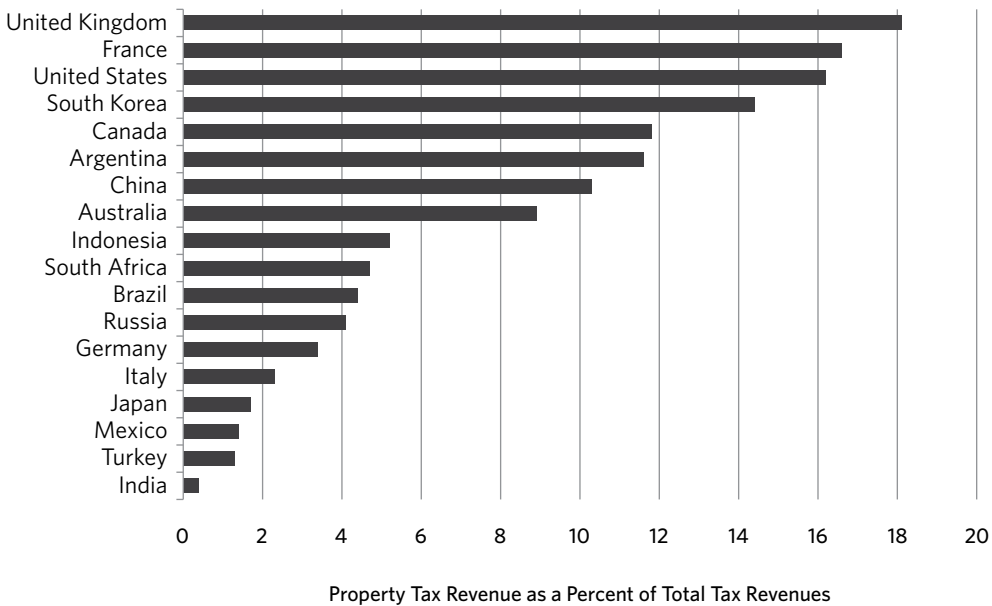
Some 618,806 companies filed corporate income tax returns for 2012–2013, for a total amount of INR 2,439.21 billion, just 2.44 percent of GDP. Furthermore, 55 percent of these companies reported losses or were not required to pay taxes; just 31,472 companies had more than INR 10 million as income before tax; and a meager 1,044 had income of more than INR 1 billion.⁵⁰ The much discussed information technology (IT) sector had

25,031 taxpayers, just 4.1 percent of total corporate taxpayers, and at INR 211.95 billion this sector accounted for just 8.69 percent of total tax collections.

The indirect tax base does not reflect that of the world’s third-largest economy on purchasing power parity terms. Of the 58.47 million enterprises identified in the *Sixth Economic Census (2012–13)*, just 5.4 million and 1.7 million, respectively, were sales tax and service tax assesseees.⁵¹

Other measures of tax collection similarly reflect a limited base. The country has the lowest share of property tax revenue as a proportion of total tax revenue among all G20 economies (see figure 8). This is significant because property taxes are the largest source of financing for cities. Indian cities are seriously financially constrained. Consequently, they suffer from a massive urban infrastructure deficit.

FIGURE 8. PROPERTY TAX STRUCTURE AND PROGRESSIVITY ACROSS G20 COUNTRIES



Note: While Saudi Arabia and the EU are included as members of the G20, both were excluded from the cited source.

Source: Prashant Prakash, “Property Taxes Across G20 Countries: Can India Get It Right?,” Oxfam India Working Papers Series no. 15, Oxfam India and the Center for Budget and Governance Accountability, January 2013, <https://www.oxfamindia.org/sites/default/files/Working%20paper%2015.pdf>.

A report from the McKinsey Global Institute estimates that in 2008, India's annual urban per capita public spending, including both capital and operational expenditures, was just \$50, which amounts to 14 percent of China's \$362 and less than 3 percent of the United Kingdom's \$1,772. In fact, India's per capita capital expenditure was just \$17, or 13 percent of South Africa's \$127. This falls to a measly \$1 in tier 3 and 4 cities.⁵² The report estimates a total spending of \$2.2 trillion, largely on transportation and affordable housing, over the 2010–2030 period, or a per capita capital expenditure of \$134, nearly eight times the current level.⁵³

INFRASTRUCTURE FINANCING DEFICIT

The cumulative effect of all this unrealized tax revenue is to put a natural limit on the resources available for public investment, especially in infrastructure. The government's Planning Commission, which formulated India's five-year plans before Prime Minister Modi took office, estimated that India would require infrastructure investments worth \$1 trillion in the Twelfth Five Year Plan period of 2012–2017.⁵⁴ A large share of this was to come from public financing. But not only do the state and central governments lack the fiscal space to mobilize anything remotely close to that amount, but the banking system is simply too small to finance more than a small part of this requirement. The country's capital markets remain too small, and it may be unrealistic to expect them to expand sufficiently and fast enough to meet the financing needs. In any case, there is only so much that credit intermediation can do when the GDS is stuck in the low thirties and three-fourths of savings are invested in illiquid and unproductive property and gold assets.

How can India finance its massive requirements? The size of the problem is illustrated by housing. The Housing for All program targets the construction of around 20 million units just in urban areas over the next five years. Most of the demand for the units would come from those in lower income groups. A conservative assessment shows that the total credit requirement for this program would be about INR 20,000 billion.⁵⁵ But the total allocation for affordable housing in the entire twelfth plan period is only INR 350 billion. In fact, the total bank credit outstanding on October 30, 2015, was just INR 6,959 billion, and the incremental bank credit for all housing for the year beginning October 31, 2014, was just INR 1,042 billion.

Another example is the national highways project. At a cost of INR 130 million per kilometer, the construction target of 25,000 kilometers for 2016–2017 would require investment of about INR 3,250 billion.⁵⁶ Assuming three-quarters debt and a similar proportion of this to come from banks, the total bank credit required for the projects of

this year alone would be around INR 1,800 billion. In contrast, for the year ending May 27, 2016, the total incremental bank credit to the entire infrastructure and construction sectors was a mere INR 27 billion. In fact, the total outstanding bank credit to the roads sector was itself only INR 1,827 billion.⁵⁷

In 2014–2015, the total incremental bank credit to the infrastructure sector was INR 881 billion (about \$14 billion), of which four-fifths, or INR 706 billion, went to just the energy sector, leaving transportation, airports, ports, telecommunications, gas, and urban infrastructure to fight over less than \$3 billion. In fact, the total incremental industrial credit flow was INR 1,411 billion, less than half that in 2013–2014. The total equity issuance by all types of firms was just INR 170 billion, an amount that was more or less unchanged from that of the preceding four years. The total amount mobilized by non-financial public and private corporations through private placement was INR 1,276 billion.

The Twelfth Plan estimates 50 percent of the INR 65.0 trillion infrastructure investment to come from budget financing and the rest from various private sources. The assumptions are straight out of the Chinese storybook—GDS and infrastructure investment are to reach 48.2 percent and 10.7 percent of GDP, respectively, by 2016–2017.⁵⁸ But both shares have been far lower than estimates, and declining, for each of the first three plan years, with the latest available figures, for 2014–2015, showing shares of 29 percent and 3.2 percent of GDP, respectively.⁵⁹ The difference is one of orders of magnitude.

The government of India's total capital expenditure has itself been just a third of the total budgetary support estimated. Owing to tepid credit growth, incremental bank lending for infrastructure financing, the largest source for the sector, was just INR 881.7 billion, compared with the estimated INR 1,436.54 billion in 2014–2015. Similar shortfalls exist in all the funding sources. Because of the pre-existing funding gap of 22.5 percent (INR 14.6 billion) of the estimated INR 65.0 trillion, the plan's investment deficit to date is more than 50 percent.

In absolute terms, for the entire twelfth plan period, the total equity investments, including domestic equity and FDI, and external commercial borrowings to finance infrastructure are estimated at INR 7,325 billion, just 11 percent of the total resources required. In recent years, private equity has emerged as the largest financing source of FDI, and commercial real estate, e-commerce, and financial services have been the biggest sectoral destinations.⁶⁰

Certain features stand out in infrastructure financing. Global experience, especially outside the United States, shows that the vast majority of infrastructure financing comes

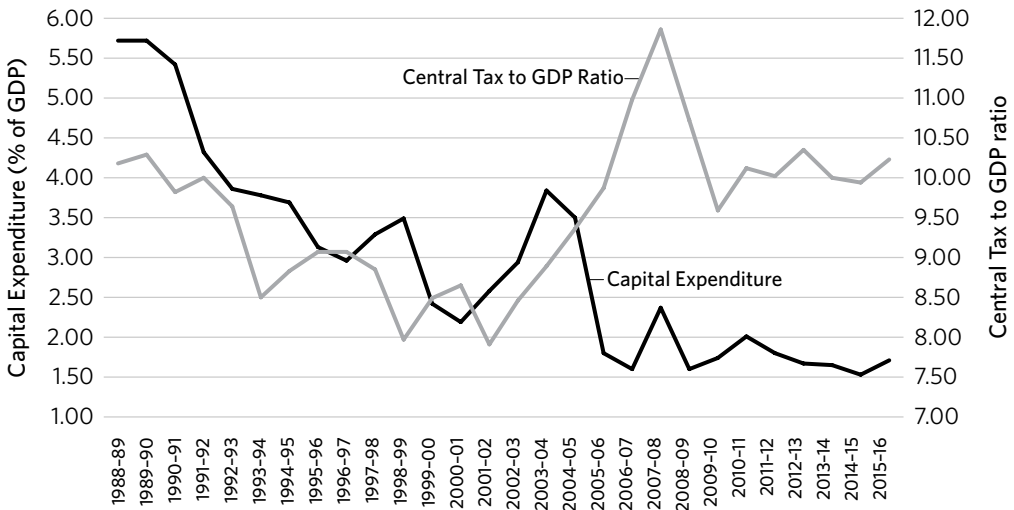
from domestic bank loans. The conventional wisdom with respect to bond financing is refuted by available evidence. Bonds have formed less than 10 percent of the global infrastructure financing sources, with the vast majority concentrated in the United States.⁶¹ Annual infrastructure bonds issuances for all emerging economies, excluding China, have been in the \$10 billion to \$15 billion range in recent years.⁶²

In any case, the global pool of infrastructure finance available for emerging economies is very small. The most funds raised in a year by infrastructure debt funds was \$4.7 billion in 2011, and their contribution has been declining since then.⁶³ Infrastructure equity funds, which leverage capital from insurance and pension funds, while larger, also form a small share of the total infrastructure financing and are concentrated in developed markets, especially the United States and Europe. Globally, they formed just above \$36 billion in 2013.⁶⁴ The data provider Preqin has reported that the total value of all unlisted infrastructure funds under management raised in the period between September 2007 and March 2014 was \$282 billion. Of this, the dry powder (unallocated) available was \$107 billion, of which just \$13 billion was earmarked for Asian markets, including China.⁶⁵

Moreover, structured equity or debt financing—in the form of infrastructure equity funds, infrastructure debt funds, or bonds—is rarer still in the construction phase, when bank loans are the most risk-appropriate form of financing. Finally, asset-liability mismatches arising from domestic currency revenue streams make foreign capital a costly source of infrastructure financing. The risks of sudden stops and capital flow reversals, from which no country is spared, with their attendant currency volatility only add to the costs of such financing. Simply stated, it is unrealistic to expect foreign capital to significantly close the large financing gap.

In this context, it is worrisome that at a time when public investments in infrastructure ought to have been climbing, the capital expenditure of the government of India as a share of GDP has been steadily declining for many years. At 1.71 percent of GDP, it was a mere \$40 billion in 2015–2016 (see figure 9). The budget for 2015–2016 seeks to reverse this declining trend in the capital expenditure of the government. Steady increase in capital expenditure by the government should continue for many years. The fiscal latitude to do so must be maintained. In connection with this discussion, it should be noted that the period of high growth (2003–2008) coincided with a sharp increase in the tax-to-GDP ratio of 4 percentage points.

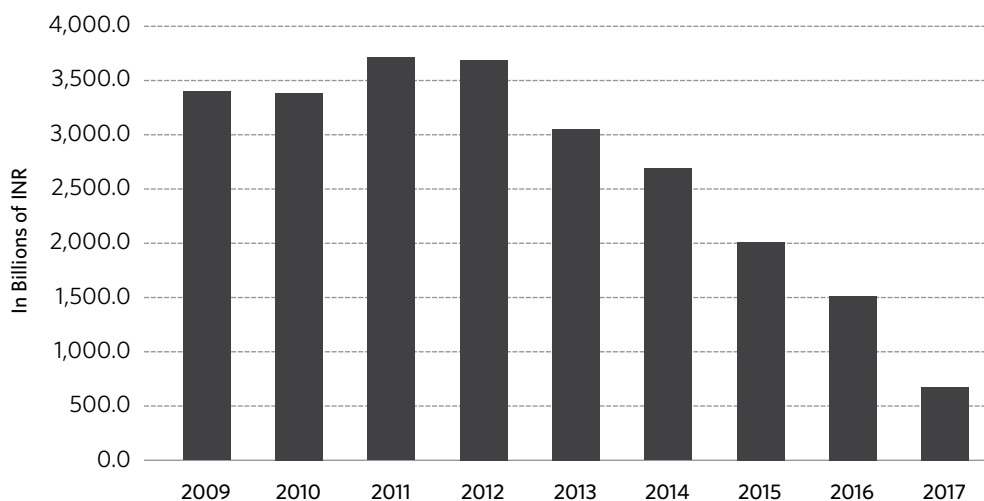
FIGURE 9. INDIA'S PUBLIC CAPITAL EXPENDITURE AND TAX-TO-GDP RATIO



Source: Reserve Bank of India's Database on Indian Economy, accessed November 2015, <http://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications>.

Capital expenditure by corporations has also been on a continuously declining trajectory since 2011 (see figure 10).⁶⁶ It was 27 percent lower in 2014–2015 than in 2013–2014 and is expected to be still lower in 2015–2016. Though this declining trend is more likely a cyclical slowdown, the low base, less than INR 10,000 billion (about \$16 billion), expected for 2015–2016 is a matter of great concern for a country that aspires to an 8-to-10-percent GDP growth rate.

FIGURE 10. CAPITAL EXPENDITURE BY THE PRIVATE SECTOR



Note: This represents phasing of capital expenditure plans funded by banks, financial institutions, external commercial borrowings, and equity issuance.

Source: Corporate Studies Division of the Department of Statistics and Information Management, "Private Corporate Investment: Growth in 2014-15 and Prospects for 2015-16," *RBI Bulletin* 70, no. 9 (September 2016).

As India explores various alternatives for financing infrastructure, it would do well to keep in mind the dominant experience from across the world and understand that domestic bank loans should form the lion's share of infrastructure financing. Alternative sources, such as structured debt and equity, can contribute only marginally. This again underscores the importance of immediately restoring bank balance sheets and recapitalizing banks. The size of the banking sector imposes another constraint. The small size of the banking sector calls for prioritized action to expand the breadth and depth of financial intermediation by the country's banking sector, including privatization and liberalization to allow foreign investments.

To finance infrastructure, then, India will have to embrace all available financial intermediation channels—domestic and foreign, equity and debt, bank and capital markets. In each case, policy action should expedite a market deepening and broadening by expanding market participation, both on the demand side and on the supply side.

4

THE STATE CAPABILITY CONSTRAINT

EARLIER DISCUSSIONS DEALT WITH THE CHALLENGES TO GROWTH

arising out of India's human resource deficits and unique production structure in farms and factories, and with financing challenges. The last major limitation on India's growth to be discussed is the state capability constraint, which amplifies the effect of all the other constraints. The conventional argument adduces the pervasive failings of public systems to deliver on even their most basic objectives. However, other debilitating constraints on state capacity have emerged over the past decade in the form of institutional power shifts, which have had the effect of restraining and even paralyzing decisionmaking at higher levels of state and central government bureaucracies. Another constraint on both decisionmaking and effective policy design, thus contributing to implementation failure, is the disproportionate influence exercised by the finance ministries across state and central governments. There are three manifestations of state capability failure—the deficit in implementation, a paralysis in decisionmaking, and the influence of finance ministries.

IMPLEMENTATION DEFICIT

The inability to implement government programs is pervasive and dominates the public's perception of weak governance. India's government-run schools are noteworthy for

neglect and apathy. Teacher absenteeism is rampant; learning levels are abysmal; toilets, where available, are mostly nonfunctional; and so on. In healthcare, doctor and nurse absenteeism is very high, and the quality of primary care services is unacceptable. Even when resources and personnel are made available, most large government-run hospitals remain badly managed. In both sectors, well-designed national programs with adequate implementation flexibility have fallen far short of expectations when subjected to the field test of implementation.

Inordinate delays in fixing a leaking pipeline or repairing potholes, let alone building new roads or drilling wells, and slow garbage collection are frustrations familiar to most Indians. The execution of small panchayat (the unit of administration at the village level) works, even when contracted and the money made available, takes months to years. And despite the existence of progressive and comprehensive legislation on social protection, atrocities against lower castes, children, and women continue unabated.

Supervisory systems, even when not compromised, struggle to enforce regulations. The commanding sectors of modern India, infrastructure and urban facilities, are marred by the same malaise. The capacity to design and document projects, manage procurements, mobilize financial resources, finalize contracts, and manage the execution effectively is sorely lacking even at the highest levels of state and national government. It is no surprise that contracting corruption, execution delays, and renegotiations have become quotidian in these sectors.

These failures all have multiple causes, of course. Some causes reach beyond the government and highlight the role of underdeveloped markets, a deficient private sector capacity, social problems, and so on. Some, such as contract design and management capabilities, are deficient even in many developed countries. However, a common thread to all of them in India is an inability to translate policies and guidelines into effective action during implementation. Even capable and well-intentioned public officials struggle to bridge the administrative capability deficit.

There are several reasons for the erosion in state capability. A dominant reason is India's minimalist state for a country of its size. For example, the Ministry of Urban Development estimated in 2006–2007 that while the country needed around 40,000 town planners, there were just 3,000 registered planners.⁶⁷ When India grappled in 2015 with packaged food safety concerns, it emerged that the country had food safety standards for only 370 ingredients, compared with the 5,000 to 10,000 ingredients commonly subjected to standards in developed markets.⁶⁸ The drugs controller general of India said in an interview in January 2014 that the agency had a total staff of 650, whereas its U.S. equivalent, the Food and Drug Administration, has twenty times as many, at 13,000.⁶⁹ On a related note, whereas New York City has 180 food inspectors

for its 24,000 eateries,⁷⁰ Hyderabad has just four inspectors for many more restaurants. The National Assessment and Accreditation Council, which accredits all the country's nearly 50,000 institutions of higher education on a five-year cycle, has only seven members. The situation is the same or worse with critical offices such as the Directorate General of Civil Aviation.⁷¹

At an aggregate level, the comparison with other countries is stark. As of 2011, public employees' share of total employment, formal and informal, was just 4.6 percent in India, compared with 15.9 percent in the United States. India had 1,622.8 government servants for every 100,000 residents against 7,681 per 100,000 residents in the United States.⁷² These numbers drop to very low levels in the country's poorest states. In 2014, the central government had 3.3 million workers,⁷³ which translates to about 262 people serving every 100,000 people, compared with 859 per 100,000 people in the United States. If those working in railways, defense, or the postal service and telecommunications are subtracted, this ratio drops to 126 per 100,000.

The district-level bureaucracy, administered by district collectors, has remained virtually the same, both in structure and in personnel deployment, since independence. During the same period there has been a dramatic expansion in the government's responsibilities, including development and welfare interventions, as well as in the government's market regulation mandate. District government agencies today manage several forms of contracting with private agencies. The amount of the resources being transacted at different levels of the district government has risen exponentially. Governments have sought to bridge the gap by hiring consultants and advisers and contracting out services. Without fundamental reforms to strengthen district governments, to include deploying additional personnel, such measures are likely to remain just palliatives.

Other factors contributing to India's implementation deficit include politicized and compromised bureaucracies, widespread corruption, weakened supervisory monitoring systems, staff indiscipline, a decline in professional standards, and overburdened officials. Falling ethical standards, a poor work culture, and demotivated employees amplify the downward spiral. Public functionaries appear to have lost sight of their original mandate.

A precondition for any sustained economic transformation is that the state be capable of delivering its side of the bargain, which is the enabling condition for the effective functioning of markets. At a minimum, state institutions should be able to deliver basic public goods and services—education, healthcare, water and sewerage management, public roads, extension services, and so on—of acceptable quality across the country. The welfare state should be able to deliver an efficient social safety net. The regulatory state should be able to accredit the large numbers of expected healthcare training and educational institutions credibly, reliably certify the standards and quality of services

and products for a rapidly expanding market, and prudently contract tens of billions of dollars of infrastructure projects of varying sizes.

And all this should be delivered at a quality and pace not hitherto seen in India. Economic growth and development at too rapid a pace, unless built on very firm foundations and backed by a state, will invariably bump up against various constraints. Given the sheer size of the challenge—which spans sectors, states, and levels of government—it may be unreasonable to expect such transformations within a short time.

The story of technical education courses in India over the past ten years illustrates this point. As the economy raced ahead in the mid-2000s, the number of seats in engineering courses rocketed up 252 percent, from 499,697 in 2005–2006 to 1,761,976 by 2012–2013, and those for management courses spiked 302 percent from 2006–2007 to 2012–2013.⁷⁴ But this massive proliferation of seats, concentrated in a handful of states, seriously compromised the quality of instruction in these courses.

It is no surprise that a 2011 survey by the National Association of Software and Services Companies found just 17.5 percent of engineering graduates employable in the IT sector.⁷⁵ Newspapers report that, according to a study by the Associated Chambers of Commerce and Industry, “Barring a handful of top business schools like the Indian Institutes of Management (IIM), most of the 5,500 business schools in India are producing ‘unemployable’ sub-par graduates, earning less than Rs 10,000 a month.”⁷⁶ A 2013 Federation of Indian Chambers of Commerce & Industry–Ernst & Young study found that 35 percent of all state and 40 percent of all central university faculty positions were vacant.⁷⁷ To fill seats, universities have had to dilute eligibility standards alarmingly. The situation has now come full circle as nearly 1,422 applications to shut down engineering college departments or courses are pending today before the All India Council for Technical Education and nearly 40 percent of engineering seats are unfilled. It is now estimated that nearly 600,000 of the 1.76 million seats in engineering may have to be eliminated in the coming years.⁷⁸

Clearly, the rapid expansion of professional colleges happened without adequate regard for regulatory due diligence to ensure quality. Not only were the entry conditions relaxed, but the weak regulatory capability meant that compliance with even the relaxed conditions was not satisfactorily enforced. The regulators were simply not equipped with the requisite capacity and professional competence to regulate these institutions effectively. Furthermore, the resultant demand for trained instructors and professionals to teach at these institutions was simply beyond the market’s capacity to satisfy. Finally, the multiplication of seats meant that admission standards had to be lowered dramatically to fill them, allowing in students with sorely deficient prior learning. The outcomes were unsurprising.

DECISIONMAKING PARALYSIS

A subtler and more debilitating constraint on state capacity comes from the trends that have emerged over the past decade in institutional power shifts, which have had the effect of restraining and even paralyzing decisionmaking at the higher levels of state and central government bureaucracies.

These trends include the actions of judges, anticorruption investigators and vigilance agencies, auditors, and Right to Information Act administrators. Their cumulative effect, by shrinking the decisionmaking space available for public servants, including political representatives, has been decision paralysis. Ironically, all these trends have been the unwitting consequences of well-intentioned actions by strong and vibrant institutions. This makes their satisfactory resolution even more difficult.

WHEN INFORMATION DISCLOSURE BECOMES DETRIMENTAL TO THE PUBLIC GOOD

India's Right to Information Act of 2005 works on the presumption of mandatory disclosure, except for a few exemptions, and enshrines the fundamental right of a citizen to demand and obtain information from public authorities. It helped shine a light and unleash a giant wave of transparency on the functioning of insular public bureaucracies. Its greatest achievement was to enable citizens to exercise their rights, previously entrapped in the thickets of bureaucracy. It empowered the poor farmer to access his *patta* certificate (a legal document attesting to land ownership), the harassed employee to know why her promotion was denied, and complainants to see the contents of the First Information Report filed by the police against them. It also allowed civil society workers to obtain information about the considerations that led to decisions at all levels of the government, including those of the cabinet. Apart from a handful of exceptions, vast swaths of government became transparent overnight. This was rightfully celebrated as a triumph of Indian democracy and a major victory for India's citizens.

But its second-order effects have not all been benign. The most debilitating has been its impact on public decisionmaking. The act's inclusion of every correspondence made within and by government, including those parts of the "deliberative processes" that resulted in a decision, led to an expansion of transparency beyond what is practiced even in the most mature developed democracies. By contrast, the U.S. Freedom of Information Act protects recommendations and advice that are made as part of the deliberative process leading to decisionmaking. This expansion of scope in India immediately transformed a far less formal and more freewheeling decisionmaking process into an excessively formal one in which opinions are expressed with great restraint.

For example, why would a director or a joint secretary risk going against the strongly held and populist conventional wisdom of auctions and make the case for a (recently tarnished) discretionary process to allot a natural resource in a workshop to formulate the resource allocation policy even if the official is convinced that auctions lead to suboptimal outcomes? Similarly, no official would dare suggest, anytime during a decisionmaking process, a change in a tender specification or contracting process, however good that change might be, if the change is perceived as also favoring a large (and possibly stigmatized) corporate firm likely to participate in the bidding.

In the context of a similar debate on the issue of information disclosure and transparency in the United States, the Harvard law professor Lawrence Lessig in 2009 cautioned against excessive transparency.⁷⁹ He argued that given its “salience” to the debate and the “assumptions of our political culture,” any accusation that a legislator took campaign donations in return for supporting a legislative proposal would immediately stick. He argued further that the “limited attention-span” of the audience ruled out the possibility of an informed debate on the issue. He wrote,

At this time the judgment that Washington is all about money is so wide and so deep that among all the possible reasons to explain something puzzling, money is the first, and most likely the last, explanation that will be given. It sets the default against which anything different must fight. And this default, this unexamined assumption of causality, will only be reinforced by the naked transparency movement and its correlations....

To understand something—an essay, an argument, a proof of innocence—requires a certain amount of attention. But on many issues, the average, or even rational, amount of attention given to understand many of these correlations, and their defamatory implications, is almost always less than the amount of time required. The result is a systemic misunderstanding—at least if the story is reported in a context, or in a manner, that does not neutralize such misunderstanding....

You will begin to see the attention-span problem everywhere, in public and private life. Think of politics, increasingly the art of exploiting attention-span problems—tagging your opponent with barbs that no one has time to understand, let alone analyse.⁸⁰

Moreover, apart from the totemic poor farmer or harassed employee, an increasingly important beneficiary of the Right to Information Act has been the corporate sector. In cases of litigation with the government, corporate lawyers rely on the voluminous file notings and intergovernmental correspondence accessed through the act to strengthen their case by exposing discrepancies and inconsistencies within those records. In complex and long-drawn-out matters involving multiple decisionmakers at the same level over time, it is not difficult to find loose ends that can be selectively subjected to the test of literal interpretation in their favor.

JUDICIAL REDRESS FOR JUDICIAL OVERREACH

Judicial activism, manifested as judgments on public interest litigations, has been around for nearly four decades. It was welcomed as a healthy response to address both executive excesses and inaction. Several landmark judgments, such as those that came down hard on corruption, safeguarded democracy, protected the environment, and restored the rights of the underprivileged, have become not only causes célèbres but have also contributed enormously to the public welfare. In fact, it is safe to say that but for rule-making through judicial activism, or its constant threat, India's environmental standards would have been far less protective. In the recent past, even as executive action was not forthcoming, the courts, especially the newly constituted National Green Tribunal, swung into action to address the worsening environmental pollution problems in the National Capital Region of Delhi.

While largely laudable, this activism has not been exempt from its share of excesses. Instead of interpreting the law as laid out in a statute, judges have often delivered their subjective interpretation of justice. Such reinterpretations of law, divorced from context, have resulted in contracts being abrogated for matters that go far beyond the scope of the contractual terms. In a recent judgment, the National Green Tribunal imposed an environmental tax on commercial vehicles entering New Delhi in addition to the existing toll tax, directed investments by toll operators over and above their contractual obligations, and even fixed the toll collection charges for the operators.⁸¹

This activism has extended even to issues of social and religious concern. The Supreme Court in January 2016 adjudicated on public interest litigation concerning the traditional bull-taming sport Jallikattu, played in parts of Tamil Nadu during Pongal celebrations, and is hearing another on the age-old ban against the entry of menstruating women into the Sabarimala temple. Questions that have to be addressed by society and developed through deliberations among members of society cannot be settled by judges, just as they cannot be legislated by governments. Such rulemaking by judges borders on the ancient practice of *kritarchy*—governing by judges, based on a concept of natural law, that runs counter to the democratic impulse.

A number of reasons exist to argue that such judicial pronouncements, while immensely popular, cannot be a substitute for executive action. This discussion is concerned only with their corrosive effect on incentives. To start, two wrongs, executive inaction and judicial excess, do not make a right. But more important, because of such judicial activism, courts have vastly expanded their functional jurisdiction and in the process have encouraged litigation. Private litigants, especially well-heeled ones, find the cost of litigation disproportionately small compared to its potential benefits. Public litigants, who never bear any personal cost and are most likely to be hauled up by an auditor

or vigilance commission for causing loss to the exchequer by not contesting the decision, prefer to appeal on the pretext of protecting the public interest. Appeal therefore becomes the default option. The willingness of courts to accept such appeals merely amplifies the incentives.

Article 136 of the constitution empowers the Supreme Court to “grant special leave to appeal from any judgment, decree, determination, sentence or order in any cause or matter passed or made by any court or tribunal in the territory of India.” Its sweeping nature, institutionalized in the form of special leave petitions, evidently means that it has to be exercised in cases involving a substantial question of law or a gross miscarriage of justice. But this extraordinary jurisdiction appears to have been reduced to a regular appellate one: 34,500 special leave petitions were filed in 2014, of which 43 percent were admitted in a Supreme Court with a caseload of just over 60,000.⁸²

The effects of such snowballing litigation can be profoundly inimical to economic efficiency and economic growth. Consider the example of the Competition Commission of India, a regulator established in 2009. A 2015 newspaper article that consolidated information accessed from government sources reported that 97 percent of the total penalty amount imposed by the regulator since inception has been stayed by the courts or appellate authorities.⁸³ Certainly the commission cannot absolve itself of its share of the blame for the quality of its orders. But it cannot be so bad that 97 percent of its orders not only are contested but continue to remain in litigation.

Another example of the courts’ tolerance for snowballing litigation comes from the fate of tribunals. A few years ago, tribunals were initiated as a progressive step to minimize litigation and reduce the caseload of the higher judiciary. Accordingly, numerous tribunals were established as part of state and central government legislation. But unfortunately, instead of helping to clear the backlog of pending cases, tribunals have become another institutional layer of litigation, since the losing party invariably ends up entering an appeal before the courts. The courts have tended to entertain even petitions ostensibly on procedural issues in cases being heard by the tribunal and go beyond points of law in appeals of tribunal decisions.

THE TYRANNY OF PRESUMPTIVE VALUATION

Article 149 of the constitution empowers the Comptroller and Auditor General (CAG) of India to exercise such powers as entrusted to it “in relation to the accounts” of central or state governments or public entities. Such powers would include a financial audit of all public revenue and expenditures and the accounts of public entities. But in recent years, as with other institutions, the scope of the CAG’s activities has expanded dramatically to encompass performance audits and assessments of policies. This functional

expansion, however, has not been accompanied by the acquisition of requisite competence. The results have been systemically damaging.

When the history of the scandals that erupted in India in recent years is written, the headline number will be the presumptive loss, as estimated by CAG at INR 1.76 trillion, caused by the allocation of the 2G spectrum when politicians and government officials vastly undercharged mobile phone companies for licenses. It heralded the arrival of the activist auditor, scrutinizing government decisions and highlighting egregious excesses, as one more critical check on executive abuse. This doubtless exposed several scandals, and the CAG should be given credit for having played the most important role in exposing the deep-rooted rot in the central government.

But there have also been unintended consequences. In the real world, with its numerous uncertainties, constructing counterfactuals is at best unwise and most often impossible. Controlled experiments are possible only in natural sciences. In real life and in policymaking, the context is never a constant, though it is an important variable in decisionmaking. The same is true of the resultant presumptive calculations. It is misleading to attribute the loss caused in one situation by simplistic extrapolation from another unrelated context. By the same logic, a decision to cancel a project run as a public-private partnership that would have yielded lease and royalty payments to the government and to leave the land vacant, however compelling the reasons, would make the officials concerned vulnerable to charges of having caused presumptive loss to the government.

It makes even unintentional omissions and errors liable to be interpreted as having caused presumptive loss to the government. This situation distorts the incentives and encourages officials to delay decisions or maintain the status quo, in the hope of passing on to their successors the burden of making the decision. It is a chain reaction.

In the matter of resource allocations, for example, the possibility that officials' decisions can be subjected to such *ex post facto* extrapolations and presumptive loss assessments even several years later encourages officials to avoid decisions involving asset or resource valuations. When forced to make a choice, the bureaucracy reflexively prefers auctions as the method for discovering price, irrespective of the context or sector. This overlooks the fact that in imperfect markets, with the moral hazard of renegotiation afoot, auctions very often distort the incentives and generate suboptimal outcomes. Developers bid aggressively to bag the resource block or the contract, knowing that they can renegotiate later. The result is that the tyranny of discretionary allotments has been replaced by the tyranny of auctions.

Financial market transactions offer another example. Banks are struggling to address the issue of rising levels of nonperforming assets, which threaten to cripple the banking sector and stifle economic growth. The most common strategy globally to address

nonperforming assets is to auction them off to private asset reconstruction companies (ARCs) after writing off a share of the loans. But this runs up against the likelihood that at least some of the assets may generate windfall gains for the ARCs, thereby raising the possibility of later attribution of presumptive loss to the public exchequer by auditors. This, with the attendant disciplinary and other proceedings, encourages bankers to postpone the recognition of bad assets, which in turn increases the cost and exacerbates the problem of nonperforming assets.

Much the same logic of presumptive valuation can be applied *ex post facto* to assess the financial consequences of any decision involving an application of judgment to prefer one policy against another or to change certain elements of an existing policy. In light of the uncertainties involved, more often than not, the policies would deliver less than expected. In fact, across the world, very rarely do *ex post facto* assessments of the benefits of a public policy exceed *ex ante* estimates. Such trade-offs and implementation gaps are a feature of most public policy decisions. Bureaucrats cannot therefore be faulted for having become risk averse in their policy choices.

EX POST FACTO ASSESSMENTS OF DECISIONMAKING

Once an issue becomes public through a Right to Information Act application or by a CAG audit, it attracts the attention of a plethora of anticorruption agencies—the Lokayukta, anticorruption bureaus, vigilance directorates and commissions, the Central Bureau of Investigation, and so on. After a high-voltage media trial come disciplinary proceedings under the Prevention of Corruption Act of 1988.

Here, the role of the much-discussed section 13(1)(d)(iii) of the Right to Information Act assumes significance. It rules that an official is guilty of “criminal misconduct” if the official, “while holding office as a public servant obtains for any person any valuable thing or pecuniary advantage without any public interest.” It does not mandate the need for a *mens rea*, or criminal intent, decision before implicating anyone under this section of the act. Since any decision, especially in processes related to procurements and resource allocations, by definition would involve benefiting one party at the expense of another, officials become vulnerable to being accused of “criminal misconduct.”

The implications are far-reaching. A decision by definition involves an exercise of judgment. In even a rules-based regime, the very decision to finalize rules would invariably benefit one party at the cost of another. It is fallacious to presume that following the rules amounts to an algorithmic application of those rules. It betrays an inability to appreciate the complex dynamics of, say, public resource allotment decisions—after all, the finalization of the technical and financial eligibility specifications of even an

open-competitive bid document involves the exercise of considerable subjectivity, which often benefits one party or category of prospective bidders at the cost of another or others. As the *Economic Survey 2015–16* by the Government of India notes, “Since the law does not require the public servant to have had any improper motive, even a benefit conferred inadvertently is sufficient to be prosecuted.”⁸⁴ This reasoning, taken to its logical conclusion, makes every decision liable to be questioned.

Its impact can be deeply debilitating. For example, it is a fundamental principle of contracting that risks be allocated to those that can bear them the best. In many infrastructure contracts, this also means that the government bears the burden of all residual risks that cannot be diversified away. In an environment in which private contracting, apart from improving efficiency, is widely seen as a mechanism to shift away public sector risks, it was thought that absolving private partners of risks that cannot be mitigated could be seen as favoring them at the cost of the taxpayers. No official would be willing to stick his or her neck out and caution against such risk allocation for fear of being accused, in any subsequent inquiry, of having caused loss to the government if the risks materialized. It is no surprise that infrastructure contracts in India are characterized by an asymmetric allocation of risks against the private party.

Similarly, in the case of delayed projects, decisions involving the apportionment of responsibility for delays inevitably require an exercise of judgment. Officials prefer to play it safe and to lay the blame on the concessionaire by default, and let the concessionaire seek legal redress. Much the same applies to all cases involving a reference made to a ministry to adjudicate a difference of opinion between an agency under that ministry and a private provider engaged by it. The ministry officials invariably prefer to lean toward the public agency, even when the evidence favors the private contractor, to avoid making a decision that would be perceived as having favored a private party at the cost of the government. The private party is left with no option but to seek arbitration or litigation. All these incentive distortions apply with equal relevance to all spheres of policymaking.

A related issue concerns safeguards against frivolous and malicious allegations. Section 19 of the Prevention of Corruption Act of 1988 requires prior sanction of the government before public servants can be prosecuted for alleged offenses committed while discharging their official responsibilities. Furthermore, section 6A of the Delhi Special Police Establishment Act required that the investigating agency seek approval of the central government even to investigate officers of the rank of joint secretary to the government of India and above. This offered some protection against frivolous and motivated allegations, likely against officials whose policymaking duties demanded the exercise of personal judgment in decisions with large public resources at stake. But in

2014, much to the consternation of officials, the Supreme Court struck down section 6A on the grounds that it violated the principle of equality before the law.

Investigators and disciplinary authorities must be able to distinguish between erroneous and mala fide (bad faith) decisions. They should acknowledge the very strong likelihood of policy choices not playing out as expected, even engendering rent-seeking mechanisms. Not even the most farsighted and enlightened policymaker can anticipate all the emergent dynamics in a complex policy environment and design a policy that mitigates all possible failure pathways. In fact, in large-scale projects, renegotiations and periodic course corrections are par for the course. The challenge lies in being able to scrutinize the decisionmaking process to distinguish between legitimate and inevitable deviations from due process and mala fide actions.

BINDING DECISION PARALYSIS

The unintended cumulative effect of jurisdictional and other excesses by these institutions is a deep reluctance among senior officials to exercise judgment and make decisions. It is unsurprising that they feel vulnerable to being accused of having caused loss to the public exchequer and to being excoriated in public through a humiliating media trial. The result is that decision paralysis has gripped the higher levels of the country's bureaucracy, at both state and central government levels. This structural incentive problem is independent of the government in power and is not amenable to being addressed through executive or legislative actions. At its worst, it may have left indelible scars on a generation of bureaucrats.

The increasingly intrusive role of the media exacerbates the decision paralysis. As the legal scholar Lawrence Lessig noted, anything that appears incriminating is enough to slander and defame anybody who is even *perceived as being involved* through high-voltage media trials in which the public's attention span is limited to the headlines. This trend nudges institutions such as the judiciary and CAG to indulge in occasional grandstanding. The intense media trials make officials extremely risk averse, and they tend to dig deeper into their default positions.

A significant proportion, possibly even the majority, of so-called stalled projects reached that status as the result of decision paralysis. For example, a delayed project necessitates decisions on what and who was responsible for the delay, permissions for a time extension and cost escalation, and often a revised scope of work. These decisions are frequently viewed from a social cognitive perspective, whereby such contracts are perceived to have been allotted to private parties on the presumption that they were best positioned to bear all risks and on the presumption that these firms invariably play ball to palm off some

of those risks and wrest more concessions from the government. Because of this social narrative, each of these decisions is liable to be criticized as benefiting the concessionaire. Officials therefore prefer to play it safe and either penalize the contractor by default or delay making the decision. This sets off a cascade of events that further delays the project and eventually makes it commercially unviable.

None of this is to advocate that Indians should restore the status quo ante and be deprived of the enormous benefits from such institutional vitality. It is just that the externalities arising from such activism have had a debilitating effect on decisionmaking and therefore on state capability with consequences for economic activity and growth. Worst affected are policymaking and contracting in infrastructure and related sectors, areas that have first-order effects on economic growth. What one can hope for is awareness of and sensitivity to these considerations on the part of judicial and quasi-judicial authorities. Over time, such awareness and sensitivity should result in better rules that preserve the integrity of decisions even as they allow decisions to be made in the first place.

THE FINANCE MINISTRY VETO

In the public bureaucratic system, at the level of both central and state government, ministries formulate schemes and proposals after elaborate stakeholder consultations, with detailed costing that takes into consideration program sustainability and commercial viability factors, then run them through the law and finance ministries to the approving authority (the cabinet or chief ministers). As might be expected, because of scarce resources and numerous competing demands, the Finance Ministry reduces program allocations. It would have been perfectly fine, indeed necessary, if this were all it did.

Unfortunately, in most cases the Finance Ministry goes far beyond the step of cutting resource allocations and makes prescriptions concerning program economics (a unit rate compensation of INR x instead of INR y), procurements (why not go through the local government agency or self-help groups?), financials (why not leverage resources from corporate social responsibility funds or a public-private partnership?), contracting strategies (preferring one model of public-private partnership over another), and even on manpower deployment (preferring one administrative structure over another, or calculating x number of people to do a task instead of y). Each of these prescriptions is typically drawn from generalizations about outliers and from misleading rules of thumb and so-called best practices.

If it were merely offering suggestions, the implementing ministry could have examined the suggestions and taken necessary action. But in India's bureaucratic rules of the game,

such prescriptions assume the force of a veto. This is all the more so since the Finance Ministry's recommendations are invariably in line with the bureaucratically correct practice of lowering public expenditure. Disagreement with the ministry risks a malicious complaint being lodged against one or a query under the Right to Information Act or an adverse audit comment and a potential vigilance investigation with its public humiliation.

The Finance Ministry's veto power is felt across programs, especially in the last mile of implementation, and can make the difference between success and failure. The most common form of veto is to skimp on transaction costs (transportation and storage charges for public distribution systems), remunerations (the midday meal for workers), construction costs (unit costs for buildings), operation and maintenance expenditures (school and toilet maintenance in Sarva Shiksha Abhiyan, also known as the Education for All initiative, and hospital maintenance in the National Rural Health Mission), leverage from other sources (corporate social responsibility and the National Rural Employment Guarantee Scheme), and so on. Doubtless some of these refusals are unavoidable, forced by the acute scarcity of resources and by political economy considerations that demand the resources be spread evenly and universally.

One recent example is the fixing of commissions for banks and business correspondents in the implementation of direct benefits transfer schemes. While the Task Force on Aadhaar-Enabled Unified Payment Infrastructure recommended a 3.14 percent transaction processing charge to banks,⁸⁵ the Finance Ministry fixed direct benefits transfer commissions to banks in rural areas at 1 percent, subject to an upper limit of INR 10—this despite detailed costing by independent agencies showing the breakeven charge to be 2.63 percent.⁸⁶

At an objective level, such vetoes are as much a transgression of jurisdiction as is kirtarchy or the tyranny of presumptive valuation. The following scenario is now commonplace. A professionally competent agency (the ministry concerned), democratically empowered, with implementation authority, and following due process procedures, formulates a program and circulates it for approval. En route to approval, another ministry, with neither the contextual knowledge nor the professional competence, at best with accounting and budgeting competence, picks apart program components and details, and in a manner that seriously undermines its prospects for successful implementation.

Clearly, any authority with discretionary power to allocate scarce financial resources would be tempted to scrutinize expenditure proposals thoroughly, and it is justified in doing so. However, given the absence of domain competence even among the relevant officials, the Ministry of Finance stepping into domain matters is egregious. Turf wars and ego clashes are guaranteed to generate suboptimal outcomes.

The state capability constraint is serious, pervasive, and endemic even as the role of the state remains indispensable to achieving economic prosperity and social stability. A root-and-branch reform of the administrative process, including on appointments, is long overdue. Paradoxically, induction of talent and experience in adequate numbers from the outside may well be the trigger for the overhaul of the administrative machinery. But that makes it a catch-22 situation. Who will bell the cat?

5

SAILING AGAINST THE WIND

THE PRECEDING CHAPTERS FOCUSED ON HOMEGROWN CHALLENGES TO ECONOMIC GROWTH. Chapter 2 discussed the missing middle in production and consumption, while chapter 3 examined the financial constraints that India faces and chapter 4 examined the capability (or lack thereof) of the state to facilitate the country's growth agenda. This chapter continues the discussion with an analysis of growth challenges from a global perspective. Developments in the global sphere, though not necessarily unique to India, nonetheless impinge on India's economic objectives. Together with the domestic factors analyzed earlier in the report, these global trends—premature deindustrialization, the peaking of IT- and services-led growth, a fall in export-led growth, global economic growth stagnation, and the impacts of climate change, and others—compound India's problems immensely.

PREMATURE DEINDUSTRIALIZATION

Historically the manufacturing sector has provided the platform for countries in their structural transformation from predominantly agriculture economies. The development trajectories of the East Asian economies and of the now developed Western economies have involved manufacturing-based industrialization.

Such countries have focused on manufacturing and moved up the production escalator, from less sophisticated to more technologically advanced products. The work of such development economists as Dani Rodrik has shown that labor productivity in formal manufacturing has tended to converge to the frontier: the smaller the initial productivity (and therefore incomes), the higher the growth in labor productivity (and therefore incomes).⁸⁷

This relationship of industry to income helps economies absorb a large number of less skilled workers, with prospects of their moving up the skill chain on the escalator of industries. Accordingly, the development trajectories of all advanced economies show that manufacturing's share of output and employment has tended to rise, peaking as the country attains middle income, and then decline.

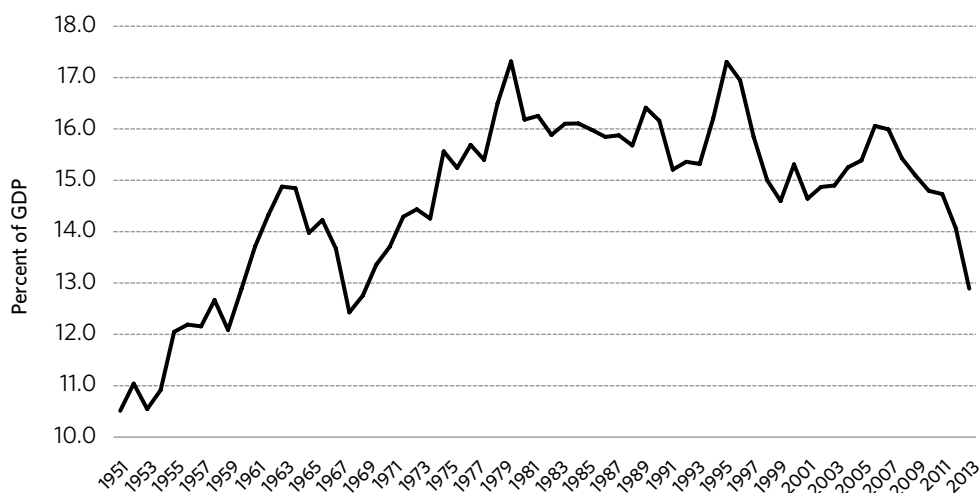
But a weakening of this trend has become evident in recent years, with countries becoming service economies before going through the full cycle of industrialization.⁸⁸ Rodrik has characterized the aborted industrialization trajectory as "premature deindustrialization."⁸⁹ Certain structural changes that have been active in manufacturing for many years, driven by the tide of trade liberalization and by the globalization of production chains, now raise questions about the efficacy of the traditional manufacturing-led rapid economic growth path.⁹⁰

The process of deindustrialization appears to be occurring much earlier now among the emerging economies, including China; nor has India been spared the impact of these secular global trends. That situation compounds the historically low share of manufacturing from which India has been suffering, the result of domestic policy choices such as the reservation of certain production lines for small industries, the requirement for extensive industrial licensing, and labor regulations, in addition to an infrastructure deficit and a shortage of skilled workers.

In India, manufacturing's share of output has been stagnant at about 16 percent of GDP for a long time. After the 2008–2009 global recession it declined to less than 13 percent in 2014 (see figure 11).⁹¹ The decline was swift. India's manufacturing share of GDP is now where it was in the 1960s.

However, manufacturing's share of employment peaked at 13 percent of the labor force in 2002. Worse, India started deindustrializing at a GDP per capita of \$2,000, in contrast to the \$9,000–\$11,000 income levels at which manufacturing in Western economies started to decline.

FIGURE 11. INDIAN MANUFACTURING'S SHARE OF GDP



Note: The Reserve Bank of India's *Real Time Handbook of Statistics on the Indian Economy* has yet to merge data after the base year revision to produce a historical time-series on real GDP. International agencies such as the IMF and the World Bank have done so.

Source: Reserve Bank of India, *Handbook of Statistics on the Indian Economy* (New Delhi: Government of India, 2015), table 3, <https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/00HC398B27C6AFF47039ABE93049886B494.PDF>.

A 2014 working paper published by the Asian Development Bank and written by Jesus Felipe, Aashish Mehta, and Changyong Rhee reported that GDP per capita at the time employment peaks has been declining much faster than that at which manufacturing's share of total output peaks.⁹² Research by Amrit Amirapu and Arvind Subramanian using national cross-panel data shows that at any stage in their development, not only is the point in time at which the industrial share of employment peaks occurring earlier but also that countries are devoting less of their workforce to industry.⁹³ This potentially dampens the prospects for manufacturing-led rapid growth and job creation for such countries as India and Africa.⁹⁴

Amirapu and Subramanian also found that much the same trends held among Indian states, with manufacturing's share of output declining in all Indian states (see table 3). They highlight this point with the example of Uttar Pradesh:

It reached its peak share of manufacturing, of 10 per cent of GDP, in 1996 at a per capita state domestic product of about USD1200 (measured in 2011 purchasing power parity dollars). Indonesia attained a manufacturing peak share of 29 per cent at a per capita GDP of USD5800. Brazil attained its peak share of 31 per cent at a per capita GDP of USD7100. So, Uttar Pradesh's maximum level of industrialization was about one-third that in Brazil and Indonesia; and the decline began at 15 to 20 per cent of the income levels of these countries.⁹⁵

TABLE 3. PEAK SHARE OF MANUFACTURING IN INDIAN STATES

State	Year in Which Manufacturing Peaked	Share of Manufacturing in GDP at Peak	Per Capita GDP at Peak Manufacturing (in 2005 INR)	Per Capita GDP at Peak Manufacturing (in U.S. Dollars at 2011 PPP)
Gujarat	1997	22.8%	25,175	2,558
Maharashtra	1986	18.9%	15,864	1,612
Tamil Nadu	1990	18.1%	15,454	1,570
Haryana	2003	17.3%	32,869	3,340
Himachal Pradesh	2011	16.4%	46,207	4,696
Karnataka	2008	14.7%	34,752	3,532
Bihar	1999	13.6%	9,215	936
Madhya Pradesh	2008	12.5%	18,707	1,901
West Bengal	1982	12.3%	9,348	950
Odisha	2009	12.0%	22,779	2,315
All of India	2008	10.7%	30,483	3,098
Punjab	1995	10.5%	25,995	2,642
Kerala	1989	10.3%	14,418	1,465
Andhra Pradesh	1997	10.0%	17,829	1,812
Uttar Pradesh	1996	10.0%	11,679	1,187
Assam	1987	10.0%	12,904	1,311
Delhi	1994	8.5%	39,138	3,977
Rajasthan	2001	8.3%	15,816	1,607
Selected Comparison Countries				
South Korea	1988	27.0%	Not applicable	10,321
Brazil	1983	30.6%	Not applicable	7,055
Indonesia	2002	28.7%	Not applicable	5,804
China	1979	40.2%	Not applicable	1,783

Note: The final column, on the right, reflects per capita GDP at the peak year of manufacturing in U.S. dollars adjusted for purchasing power parity at 2011 prices.

Source: Amrit Amirapu and Arvind Subramanian, "India Must Reverse Its Deindustrialization," Peterson Institute for International Economics, May 9, 2014, <https://piee.com/commentary/op-eds/india-must-reverse-its-deindustrialization>.

Underscoring these trends, since 1996, coinciding with the high noon of Chinese manufacturing-driven economic growth, China's manufacturing employment growth is estimated to have fallen by nearly one-quarter.⁹⁶ One of the primary drivers of this trend is rapid factory floor automation of repetitive and routine tasks through mechanization, including the use of robots. The declining price of robots and the difficulty of recruiting and retaining adequately skilled labor, already acute in India's factories, are most likely to bring these trends to India. According to one estimate, the major Indian automobile manufacturers have already automated nearly 30 percent of their plant activities.⁹⁷

The automation trend highlights the need to shift the focus away from India's traditional industrial policy, which has largely revolved around fiscal and other incentives for capital, often at the cost of labor. The announcement in the *Union Budget 2016–17* of a budget line to subsidize the 8.33 percent employer contribution toward the Employees' Pension Scheme is a welcome step in this regard.⁹⁸ But much more can be done to move incentives away from capital and toward labor.

In this context, the role of construction, by now perhaps India's second-largest employer after agriculture, assumes significance. Its share of the labor force rose from 5.6 percent in 2004–2005 to 11.3 percent in 2009–2010, while that of manufacturing declined from 12.2 percent to 11.4 percent over the same period. Furthermore, its elasticity, or change in employment for one unit change in economic output, has grown from 0.78 to 1.54 during the same period, even as the elasticity of employment across the economy declined from 0.44 to 0.01.⁹⁹ This growth came on the back of the massive investments made in the construction-intensive infrastructure sector. It also helped that unlike in manufacturing, construction, especially its labor market, operates largely in the informal sector, through vast networks of largely informal subcontractors. This helps employers evade many statutory labor-related obligations, apart from minimizing tax liability, and increases construction businesses' competitiveness. Because of India's antecedent infrastructure deficiencies, the construction sector is likely to continue growing well into the future, thereby presenting a critical source of employment generation. Its growth needs to be nurtured.

CAN IT AND SERVICES DRIVE EMPLOYMENT?

India's relative success in the IT sector, despite the sector's current small size and limited relevance to overall growth, has led some commentators to point to the potential for a new model of services-led economic growth for the country.¹⁰⁰ Here, too, the work of Dani Rodrik is instructive. In 2014 he argued that the inherent dynamics of the services sector militated against generating similar growth and job creation trends, just as with manufacturing.¹⁰¹

The high-productivity sectors, which are typically tradable, being skill-intensive, cannot absorb many of the unskilled or underskilled workers who dominate the 12 million people entering India's workforce every year (see table 4). In fact, the more productive and therefore rapidly expanding (and mostly tradable) services are also highly skill-intensive, far more so than manufacturing.¹⁰² Rodrik's work also shows that there are very few examples of simultaneous growth of productivity and employment in the services sector.¹⁰³

TABLE 4. EDUCATIONAL BARRIER TO SERVICE SECTOR EMPLOYMENT

Sectors and Subsectors	Share of Employees With at Least a Primary Education (as a Percent)	Share of Employees With at Least a Secondary Education (as a Percent)
Agriculture, Forestry, and Fisheries	44.5	13.9
Mining	50.1	22.1
All Manufacturing	62.8	24.8
Registered Manufacturing (Factories with More than 10 Workers)	76.8	43.2
All Services	77.8	47.8
Transport and Communication	71.5	33.0
Wholesale and Retail Trade	72.1	34.6
Banking and Insurance	97.6	83.6
Real Estate and Business Services	93.5	77.5
Public Administration and Defense	89.7	66.5
Education	96.3	88.8
Health and Social Services	92.4	76.7
Electricity, Gas, and Water	85.6	55.8
Construction	51.8	14.4

Source: Arvind Subramanian, "Economic Growth: Glimpsing the End of Economy History?" (presentation, World Bank, Washington, DC, October 13, 2014), <http://www.theciip.org/sites/ciip/files/documents/Arvind%20Subramanian.pdf>.

Furthermore, unlike in manufacturing, there is limited prospect for a natural progression up the skill chain in the services sector. While a textile- or toymaker can with minimal training move into assembling electronic goods, the prospect of a barber or a housekeeper moving into business services or banking, even at the lower end of the service, is remote or nonexistent.

India's stark and persistent deficiencies in education and skill development are a major obstacle to reaping the benefits from tradable services in any significant manner. At a minimum, more than a decade of intensive focus on education and skill development would be required before the country could realize substantial benefits from tradable services. Addressing the deficiencies in those areas would take time, and, as with manufacturing, there are serious uncertainties over the possible disruption to parts of the services sector, especially at its labor-intensive end, from technological advances.

The less productive nontradable services face self-limiting constraints: labor-absorbing services are less productive and therefore slow-growing, whereas the fast-growing and more productive services experience higher relative wage growth, with resultant limits on job creation. As Rodrik writes, "Services sectors that have the best productivity performance typically shed labor; labor absorbing sectors typically have [the] worst productivity performance."¹⁰⁴ It is therefore difficult to envision nontradable services as the predominant channel for significant employment creation and rapid economic growth.

That is one reason that the government's *Economic Survey 2014–15* concluded that India had to address two challenges simultaneously: ensure that its existing unlimited supply of unskilled labor was utilized, and ensure that the inelastic supply of skilled labor was made more elastic. The *Economic Survey* conceded that both were major challenges but that India had no option other than to attempt to proceed on both fronts simultaneously. There is no precedent in the history of economic development for the simultaneous occurrence of both a utilization of unlimited supply of skilled labor and an improved elasticity of supply of skilled labor.¹⁰⁵

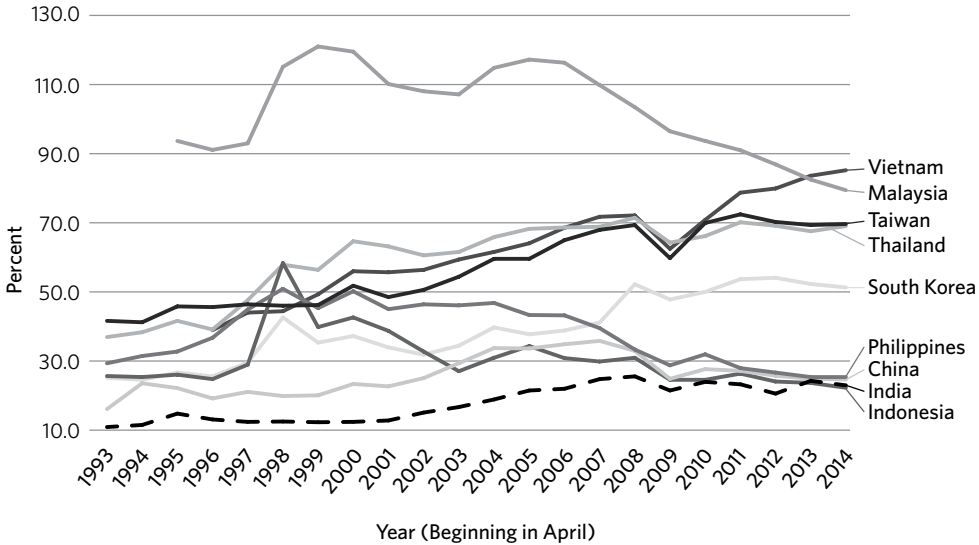
THE END OF EXPORT-LED GROWTH?

One of the defining features of successful economic growth over long periods in the recent past has been the central role of exports. The most prominent example is that of East Asia, where long periods of economic growth were sustained by strong export growth, in particular driven by the manufacturing sector. India clearly exports a far smaller share of its output than did any of the East Asian economies during their high-growth periods (see figure 12).

The prospects for the manufacturing sector becoming the engine of India's growth do not appear promising, owing to the structural shifts taking place in the global economy and the concomitant trend of premature deindustrialization. More worryingly, the prospect of exports becoming a main driver of economic growth also looks bleak. A spring 2015 study by the Bank of Canada explored the trend of stagnation of global trade since

2008, after more than a quarter century of sustained increases.¹⁰⁶ It also posits that at least some of the contributors to strong global trade in the past, such as trade reforms and technology innovations, may have been secular and may have played themselves out. Consequently, even when trade rebounds, its pace of growth may not match the rates prior to the crisis.

FIGURE 12: EXPORTS OF GOODS AND SERVICES AS A SHARE OF GDP



Source: BMI Research's Data and Forecasting, accessed September 2015, <http://www.bmiresearch.com/platform>.

Superficially, megaregional trade pacts may appear to contradict this pessimism over exports. However, they reinforce the recent slowdown in global trade. First, regional trade pacts are no substitute for a nondiscriminatory global free trade regime. Second, most of the regional trade pacts are political in nature as they seek to include some nations and leave out others from their ambit, through their elastic definition of the geographies covered by the pacts. Third, the problem with these so-called second-best government solutions is that they give rise to third-best private sector behavior. To take advantage of low tariffs under these regional trade pacts, companies may shift production or divert trade to countries covered by the pacts. In doing so, they hasten the onset of premature deindustrialization in their parent countries, with a consequent adverse impact on employment. Therefore, the megaregional trade pacts are unlikely to herald a renaissance in global trade flows.

The global recession of 2008–2009 and the accompanying global economic weakness, amplified by troubles in the eurozone and by the recent alarms from China, have taken

their toll on the Indian economy. But for a small bump in 2010, the annual growth rates of exports of goods and services have declined continuously for more than a decade, and there is nothing to indicate that any reversal of this trend should be expected. It is no coincidence that in the 2003–2008 high-growth period, Indian exports grew at an annual average rate of 26 percent.

Quite apart from global factors, India has its own share of reasons for export pessimism. When trade is not expanding, other countries try to increase their market share. India has not been able to do so. The *Monetary Policy Report* of the Reserve Bank of India, presented with the first bimonthly monetary policy statement for the year 2016–2017, noted that India's share of global exports declined from 1.7 percent to 1.6 percent between 2014 and 2015.¹⁰⁷ Other than India, only oil and resource producers have seen a decline in market share. India's inability to maintain, let alone increase, its market share reflects the myriad problems that hold back its growth. Among other things, the fragmentation of production makes the realization of sustained productivity gains and the achievement of export competitiveness especially difficult.

In his comments on the growth rate of the Indian economy in the quarter ending June 2015, the then minister of state for finance Jayant Sinha noted that it was impossible for the economy to grow at higher rates when export growth was not stagnant but contracting.¹⁰⁸

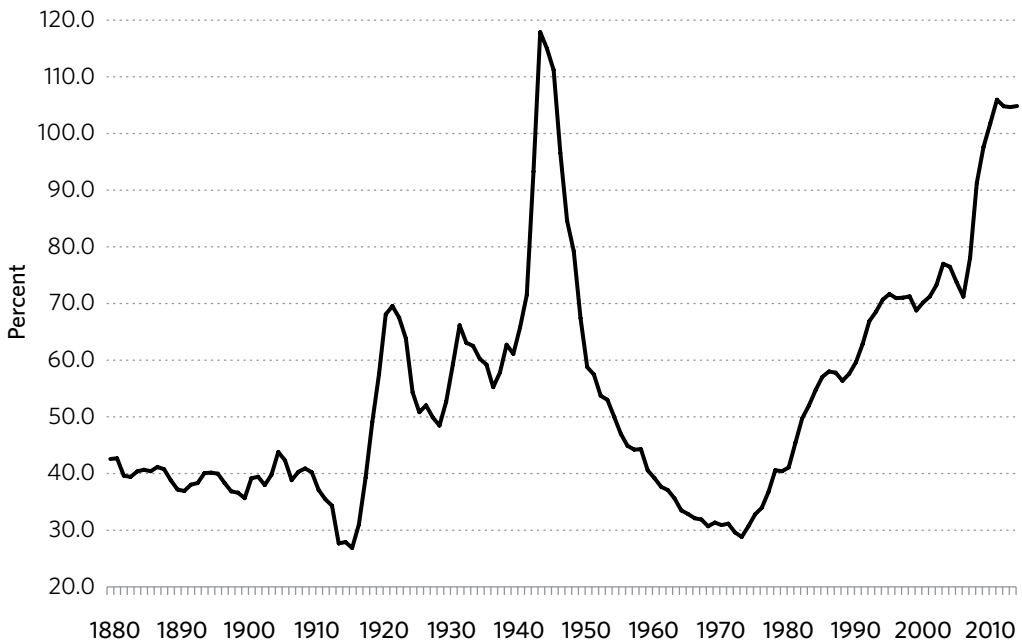
All these adverse factors make the likelihood of trade becoming a driver of economic growth, at least for the near future, very remote. The foreign trade policy for 2015–2020 announced on April 1, 2015, seeks to double exports to \$900 billion by 2019, for an annual growth rate of more than 14 percent.¹⁰⁹ In other words, India not only will have to reverse declining export growth rates of recent years (2014–2016) but will also have to reach its fastest export growth in five years, against the backdrop of a sharp slowdown in China and gathering gloom about medium-term global economic prospects. Frederic Neumann, chief Asia economist at HSBC, summed it up pessimistically: “Over the next five years, it's very hard to see exports as the engine of Asian growth.”¹¹⁰ He is right.

GLOBAL ECONOMIC GROWTH STAGNATION

Neither India nor its East Asian neighbors can rely on export growth to drive overall economic growth. That is because most advanced economies have not addressed the core issue that led to the global recession of 2008–2009: the rapid accumulation of debt since 1970. That represents the largest and longest period of accumulation of debt in peacetime since 1870. Government debt in advanced nations rose rapidly during the two world wars, then declined equally quickly (see figure 13). The relentless rise in debt since the

1970s, however, is something new and will likely have much longer-lasting consequences. It has risen without a break for more than four decades, and without the excuse of war.

FIGURE 13. GOVERNMENT DEBT-TO-GDP RATIO FOR DEVELOPED ECONOMIES



Note: This figure displays the ratio in 2011 U.S. dollars.

Sources: International Monetary Fund, *World Economic Outlook: October 2012* (Washington, DC: International Monetary Fund, 2012), figure 3.1, <https://www.imf.org/external/pubs/ft/weo/2012/02/pdf/text.pdf>; and International Monetary Fund's World Economic Outlook Database, accessed December 4, 2015), <https://www.imf.org/external/pubs/ft/weo/2015/02/weodata/index.aspx>.

Between 1980 and 2014, the GDP of advanced economies rose by 5.6 times, while their public debt rose by 14.4 times. Nearly 55 percent of all GDP (in 1990 U.S. dollars) created since year 1 of the Common Era was created in the twentieth century alone. Even more staggeringly, 23 percent of all economic output since year 1 was generated in the first decade of the twenty-first century. This figure exceeds the cumulative output created in the world economy in the first nineteen centuries of the Common Era.¹¹¹

Thus the inexorable rise in public debt, coupled with a rise in private debt, had been the engine of growth. That debt has to be paid back. Growth will inevitably slow in the developed world and will also become more volatile as efforts to sustain growth through

asset bubbles will generate frequent boom-bust cycles. Indeed, the Great Moderation witnessed since 1980 in the economies of advanced nations appears to be over. A lower average economic growth rate coupled with more volatility is in store for economies the world over. This has implications for India.

Export-led growth serves many objectives. It enables a higher domestic savings rate and creates a constant pressure for quality and productivity improvements in domestic manufacturing. A difficult or even hostile export environment means that this automatic driver of greater domestic savings and productivity improvements will be missing in action. There will be a greater burden on other policy drivers to bring about improvements in domestic savings and productivity rates. Hence the difficulty of achieving a permanently enhanced economic growth rate is compounded by an unfavorable external environment in many ways.

In an op-ed piece published on the *Project Syndicate* website in February 2015, then RBI governor Raghuram Rajan pointed to several external challenges for growth in India.¹¹² One is that India will need an open system of international trade and finance to access essential commodities freely. Second, India will need multilateral institutions to develop frameworks that cater to the interests and capital needs of emerging economies. Third, advanced economies might both turn inward with respect to global monetary and financial systems and turn protectionist in matters related to trade. Right now, they continue to be dominated by frameworks that serve the interests of the developed economies.

There is a tiny ray of hope. In December 2015, Shinzo Abe, the prime minister of Japan, visited India and signed several landmark agreements with India, including one for the large funding of a high-speed train between Mumbai and Ahmedabad on extraordinarily soft terms; a technology collaboration; and a nuclear energy deal. If this is just the beginning of Japan paying more attention to its relations with India for strategic reasons, then India will be an undoubted beneficiary. As Dhruva Jaishankar pointed out at the time,

In the early 1990s, just a few years after the Tiananmen Square crackdown drew international opprobrium, China began raking in foreign investment. Between 1990 and 1996, some \$435 billion was committed to China, helping to fuel that country's transformative economic modernisation. Japanese pledges during that period accounted for a significant proportion, including almost 11 percent of total investment into Shanghai. At the same time, Tokyo was committing similar amounts to the Asian Tigers (Singapore, Hong Kong, South Korea and Taiwan) and to the emerging economies of Southeast Asia (Thailand, Indonesia and Malaysia). If there is one takeaway from Prime Minister Shinzo Abe's just concluded visit to India, it is that Japan is willing to make the same big bet on India that it once did on China and Southeast Asia.¹¹³

India needs to understand the importance of investing in and nurturing these bilateral arrangements owing to the global risks that the RBI governor highlighted. That said, India will be able to reap the full rewards of Japan's financial and technological support only if state and private sector capability is improved. These issues are addressed in the policy and program recommendations in chapters 7 and 8.

THE COSTS OF CLIMATE CHANGE

It is difficult to do full justice to the topic of climate change and its impact on India. For an unambiguously India-centric angle on the issue of climate change in terms of both the costs imposed by climate change and the costs of mitigation efforts, the comprehensive work of Arvind Panagariya, published in 2009, before the Copenhagen Summit, serves well.¹¹⁴ In the Paris negotiations on climate change that concluded in fall 2015, India appeared to make some notional gains while suffering clear setbacks on some of its important negotiating points. India will have to deal with the consequences of climate change that were set in motion a long time ago while at the same time working to keep its own growth and development agenda from being derailed by the climate change imperatives of the developed world.

For instance, there is a very real risk that the global capital available to finance India's thermal power projects might be restricted, with the lenders citing climate change concerns. Furthermore, as Nitin Sethi wrote in a piece about the Paris climate change talks for the *Business Standard*,

India relented, as did other developing countries, to set in motion a process through which by 2020, when [the] Paris agreement comes into force, the world will be looking at common rules for measurement, reporting and verification of the actions of all countries....

India was not... able to keep alive the explicit reference that no country should be able to take unilateral measures like border taxes on imports based on climate-change considerations. It was also not able to keep alive a more explicit indirect reference to the need of resolving the issue of intellectual property rights that make clean technologies costly.¹¹⁵

Some fear that the reporting requirement will bring equivalence between developing and developed countries in through the back door.

Fundamentally, the Indian economy faces the challenge of internalizing the full cost of environmental and social externalities (such as labor standards) without compromising

its own economic growth prospects. Historically, these externalities were factored into economic decisions gradually in the course of a country's development trajectory. The gradual absorption of costs kept overall costs lower and markets more inclusive. Now, producers face higher production costs and consumers face higher prices.

Then there are the direct costs of climate change and other related environmental problems. The increasing frequency of climate change–induced natural disasters brings with it greater human suffering and increasing rehabilitation costs. A growing body of evidence shows that the poor, both among and within countries, are the most affected.¹¹⁶ Disasters from climate change have the potential to push those most vulnerable even deeper into poverty and interrupt the economic mobility of millions. Recovery from such episodes can take years.

In sum, climate change might be emerging as a big obstacle to India's growth in many ways. That needs to be factored into any assessment of India's economic growth prospects and risks.

This chapter and the immediately preceding ones may have sounded like a relentless onslaught of bleakness and pessimism. However, the intention of this report is not to prognosticate gloom and doom for India's economic prospects—quite the opposite. But to find solutions to problems, it is important to begin by acknowledging the problems and trying to understand them. The various domestic and international barriers to growth can be addressed one by one, though it may take a generation or more to implement solutions and see outcomes.

6

OPPORTUNITIES

TWO OPPORTUNITIES HAVE ARISEN FOR INDIA as a result of recent global developments. One of those developments, the rapid decline in the price of crude oil, is relatively tactical and might be short term in nature. The other is the peaking and decline of China's economic growth and the challenges Beijing faces in its economic transformation. China is seeking to transition to a middle-income country by de-emphasizing low-cost manufacturing and relying on high-value-added manufacturing and services to drive economic growth in the future. At the same time, it is grappling with a huge mountain of debt accumulated especially rapidly since the global economic crisis of 2008–2009. Its labor costs are no longer low. That presents some opportunities for India, provided New Delhi is prepared to take advantage of them.

POST-PEAK OIL OPPORTUNITY

The weak global growth environment has managed to create some opportunities for India through lower oil prices and possibly a prolonged period of low returns in Western countries owing to lower growth, higher debt, and saturated investment opportunities or burst bubbles. Clearly, these are short-term opportunities. For example, the low oil price may not be permanent. While domestic and external headwinds appear structural

and long term in nature, the opportunities could be ephemeral. That is why India should capitalize on these situations quickly before they vanish.

In a meeting held in December 2015, the Organization of the Petroleum Exporting Countries (OPEC) could not agree on a production ceiling.¹¹⁷ OPEC expected demand to pick up. That seems unrealistic in light of where world economic growth is likely heading. In other words, the OPEC meeting held out the possibility of the price of oil not rising from the level of around \$40 per barrel that prevailed at the time. By February 2016 the price had declined to around \$30 per barrel. The low price of oil will help India keep its fiscal deficit in check in 2016–2017 as it grapples with the fallout of the implementation of the recommendations of the Seventh Central Pay Commission. The recommendations, since accepted by the government, increase the salary of the country's nearly 10 million central government employees by more than 23 percent. At the same time, it is a reminder that India should build up strategic oil reserves gradually but persistently over the next few years. India correctly argued at the Paris climate change talks that it needed carbon space. The low international price of oil affords India that space. India should take advantage of it.

THE CHINA SLOWDOWN OPPORTUNITY

Another development that might work in India's favor is the slowly emerging picture of China's economic troubles. Of course, it comes with considerable caveats. China's economic slowdown and its concomitant economic troubles may persuade many foreign direct and portfolio investors to examine the case for India more closely. Chinese businesses might consider investing in India, too. Furthermore, the economic slowdown in China should keep the demand for crude oil lower and restrain any future price increase. That is good news for India because of its dependence on imported crude. Quarter after quarter, if India reports a higher economic growth rate than China, the resulting boost to Indian business and self-confidence and to India's international image would be considerable. Shifts in perception and confidence trigger investment and consumption spending and thus confer economic growth benefits.

However, India shares many of the problems that China faces, including corporate leverage, nonperforming assets in the banking system, and severe environmental and ecological degradation. There are as well unresolved border disputes with China. It is quite possible the shift in perceptions as to the economic prospects of both nations will affect their bilateral relations one way or another.

With regard to trade, a slowing China would be a very serious competitor both to Indian domestic manufacturing and to India's exports to third countries. After having bottomed in 2011, China's trade surplus as a share of GDP has been rising. That this has accompanied China's economic slowdown is no coincidence.

China has a huge trade deficit in services. India has a trade surplus in services with the rest of the world. So do the United States and the United Kingdom. The latter two count financial services among their strengths. That is why they are keen to expand and deepen their ties with China in equities, bonds, and currencies trading. India is a long way away from counting financial services as an area of strength.

China is reportedly keen to boost the share of the services sector in the economy. India should make it a priority to deepen and broaden its service sector offering to China. It is not just about healthcare services, business processes outsourcing, or software coding services. India has some natural advantages in other service areas as well: tourism, including medical tourism, is part of services. Chinese nationals are avid travelers, but so far India is not at the top of their minds as a tourist destination.

Ultimately, the evolution of the Chinese economy in the years ahead is expected to have a critical and significant bearing on economic and other outcomes in India. Only a few specific responses to the emerging economic slowdown plus transformation in China have been discussed. However, long-term economic benefits accruing to India from developments in China are not automatic. Sustained and large improvements in India's productivity, competitiveness, and economic resilience are needed and should come if India manages to sustain a high growth rate.

INVESTMENT DESTINATION OPPORTUNITY

India has a history of delivering good returns to investors, both direct and portfolio. Of course, statistics on returns to foreign direct investors are not readily available. But investors' satisfaction is evident in the amount of funds that flow into India. According to United Nations Conference on Trade and Development data, in 2014 India received gross foreign direct investment inflows of \$34.4 billion. Based on figures provided by the Reserve Bank of India, the country's gross FDI inflow was a little over \$59.6 billion in calendar year 2015, while net FDI inflow (after adjusting for FDI by India in other countries) amounted to a little over \$37.0 billion. On a financial year basis, for the year ending March 2015, India received a gross FDI inflow of \$45.1 billion and a net inflow of \$35.3 billion. Figures for the first nine months are available for the year ending March 2016. Comparable figures are \$43.9 billion and \$27.4 billion, respectively. India did even

better in 2015–2016. Gross FDI amounted to \$55.6 billion, and net FDI was \$44.9 billion. These numbers should be seen in the light of indications that FDI inflow of around 4 percent of GDP is the historical high in other countries. That would work out to around \$80 billion in the case of India. There is considerable headroom for more FDI.

According to Morgan Stanley Capital International (MSCI), Indian stocks (the MSCI India index) delivered an annualized return of 7.2 percent in U.S. dollar terms from June 1994 to the end of 2015. The corresponding figure for China was 0.6 percent. If India continues to work on improving its investment climate, this amount will get even better since investors are running short of investment destinations that can absorb large amounts of long-term capital. India has some inadequacies in this respect compared to its own needs and compared to China, but other leading emerging economies, including Brazil, Indonesia, South Africa, and Turkey, are far behind India and have challenges of their own.

In addition, the advantage for India is that the challenge of achieving economic growth while dealing with a mountain of debt means that the developed economies are expected to continue to feature historically low interest rates. The experience of Japan in the past quarter century is an indication of the shape of things to come in the developed world in general. This has two benefits for India. One is that global interest rates will continue to exert a benign influence on Indian rates. Second, pension funds and insurance companies in the developed world continue to make unrealistic assumptions about returns on their portfolios. Paring back those assumptions would create a big accounting hole and expose the mismatch between the present value of their liabilities and their assets, with the former substantially exceeding the latter. They would have to turn to countries like India for long-term investments with decent returns to bridge the gap between their liabilities and assets.

Hence the global environment certainly features opportunities for India that did not exist earlier.

7

POLICY PRESCRIPTIONS

INDIA'S PREPAREDNESS, OR, MORE PRECISELY, THE LACK OF IT—the poor quality of its human resources and the pervasive weakness in state capability—constrains the country's ability to overcome the structural headwinds and global trends and take advantage of opportunities. The shackles imposed by restrictive regulations exacerbate India's weaknesses, further limiting the country's ability to achieve a high growth rate and sustain it for a prolonged period of time. With business as usual, India's massive size, even with all of the internal weaknesses and headwinds, means the country may grow rapidly in short bursts (as happened for a few years in the last decade) interspersed with longer periods of moderate growth.

In fact, for a country of India's size and diversity, there are always likely to be geographic and sectoral pockets of economic dynamism that may be enough to sustain 4 to 5 percent annual growth rates. Some of these knowledge-based services sectors could potentially grow at very high rates for long periods. A young population with 12 million people entering the workforce each year and a very low income base for the vast majority of the population are accounting artifacts that naturally increase growth. All this, coupled with strong public spending and business-as-usual corporate infrastructure investments, should be adequate to sustain a 4 to 5 percent annual growth rate.

Efforts are under way to remove the hurdles that stand in the way of rapid economic growth in the years ahead. The government in New Delhi has initiated several programs

over the past two years. They include ones to improve the ease of doing business (Make in India), address skill deficiencies (Skill India), catalyze the use of digital technologies (Digital India), foster entrepreneurship (Start-up India), promote urban development (the Smart City Challenge; AMRUT—the Atal Mission for Rejuvenation and Transformation; and the Housing for All initiative), and so on. Other institutional reform initiatives, such as the goods and services tax, the Financial Code, the four Labor Codes, the Bankruptcy Law, and the Arbitration and Conciliation Act, are in various stages of enactment and implementation and will be significant contributors to the country's economic growth.

Though these reform initiatives are certainly important steps in the right direction, it may be necessary to undertake more extensive reforms in certain areas to attain a sustainable growth path. A comprehensive set of policies to improve the quality of education and healthcare is a must. Cities, the engines of growth, need fundamental reforms in governance and in land and housing markets. Economic growth and job creation depend critically on easing infrastructure constraints and improving the business environment. The banking sector needs immediate and far-reaching reforms to strengthen it, and the formal economic base must be expanded greatly to support sustained economic growth. Finally, the Indian state at all levels needs to be strengthened through significant reform of its personnel policies and the enactment of measures to improve state capability. A few important interventions in these areas are proposed and discussed below.

HUMAN RESOURCE DEVELOPMENT STRATEGY

The realization of India's demographic dividend, the economic benefit resulting from a more youthful workforce with fewer dependents, is premised on a high quality of its human resources. Unfortunately, the poor learning outcomes and acute skills deficiency, which reflect the subpar quality of school and college education, threaten to turn the demographic dividend into a demographic disaster.

The abysmal student learning levels in India's schools, captured by numerous surveys conducted by both the government and nongovernmental organizations for many years, must count among the nation's biggest failures. The ineffectual educational system has a debilitating effect on the foundations of the country's economic growth, for it results in unemployable graduates, an inadequate supply of skilled labor, a large and unproductive informal sector, and wasted human resources.

India needs a mission with the focused objective of ensuring that every child leaving primary school has functional reading, writing, and numerical skills, at least commensurate with third grade skills. Achieving this goal would require drawing from existing

initiatives, such as the Gunotsav, which has been implemented in Gujarat since 2009, and those that, like Pratham, focus on foundational learning, teacher capacity building, and continuous learning-level assessment.

What gets measured is monitored. In the absence of any ongoing student-level learning outcomes measurement, it is no surprise that the issue has been neglected. India needs a learning trajectory tracking database, linked with the Aadhaar number, for all students, to help assess, address, monitor, and inform their learning progress in all grades. Such a database would help classroom teachers track each child's learning achievement or deficit, would help parents be aware of their child's learning progress, and would provide inspectors with information on each school's aggregate performance on measures of learning outcomes.

This database could be seamlessly integrated with the proposed digital degrees depository of school-leaving certificates, college degrees, academic awards, and report cards that was announced in the *Union Budget 2016–17*. By validating authenticity and allowing easy retrieval, such a database and its linkages would significantly reduce the transaction costs associated with college admission decisions and jobs recruitment.

As regards interventions to improve learning outcomes, their qualitative nature means that a top-down, one-size-fits-all program implemented across the country is unlikely to be effective. Instead, a program that allowed self-selected districts to craft their own three- to five-year learning outcomes improvement plan by drawing from a menu of available interventions would have a good likelihood of success. The districts could be incentivized by allocating a gradually increasing share of their Sarva Shiksha Abhiyan school budget for learning outcomes and would be held accountable for delivering on their commitments.¹¹⁸ This strategy, like that of the Smart City Challenge competition, has the potential to trigger competition among districts and push the learning outcomes agenda to center stage.

The Ministry of Human Resource Development should support the initiative with the development of open-source learning outcomes tracking software, which would form the core of the data management system. The software should have various user-friendly data entry interfaces, be supported on multiple devices and platforms, and be able to produce reports to serve as decision support for teachers, headmasters, school inspectors, and higher-level supervisors. The ministry should also disseminate brief, easy-to-understand multimedia presentations, in vernacular languages, explaining the various possible learning outcomes improvement interventions; case studies from around the country should be part of the presentation. The program could be effectively coordinated through an interactive digital platform that enables participating districts to interact with each other, share their successes and learn from others' experiences, access technical support, and communicate with and submit reports to the state government and the ministry.

School education reforms alone will not be sufficient, however. They must be complemented by policies that correct the institutional plumbing of the higher education system. The extant regulatory system with its emphasis on micromanagement distorts incentives at all levels and should be radically revamped. The need for sufficient entry barriers to screen out unscrupulous promoters must be balanced against the need for adequate administrative, academic, and financial autonomy. Universities should be accorded sufficient autonomy to structure their curricula, recruit faculty, provide degrees, open campuses, and offer online courses. The regulations should differentiate between research and training institutions, on the one hand, and universities and affiliated colleges on the other.

The mandates of the University Grants Commission and sectoral entities such as the All India Council for Technical Education and the Medical Council of India will need to be revised to reflect these requirements. The National Assessment and Accreditation Council should be replaced by a robust and credible system of periodic independent evaluation of the nearly 50,000 establishments of higher education. Finally, the effective implementation of these reforms will require enlightened and visionary leadership in all these institutions and government agencies.

The *Union Budget 2016–17* announced the establishment of ten world-class research and teaching institutions in the public sector and another ten in the private sector. These institutions are to be supported by a light-touch, enabling regulatory architecture. The objective is that over the next fifteen to twenty years, each of these institutions will develop into large, excellent higher learning and research institutions with enrollment of around 15,000 to 20,000 students. This is a step in the right direction and should be the trigger for the gradual easing of the stifling regulatory constraints on all institutions of higher education. These institutions should be given enough academic, administrative, and financial autonomy to design their own curricula, admit students, recruit faculty, expand course offerings, raise resources, and so on.

On the demand side, the increasingly high cost of good-quality professional degrees makes them unaffordable for all but a handful of students. But the returns associated with the acquisition of such qualifications are very high. It is only appropriate, then, that students have hassle-free access to loans to help finance their higher education. Governments, both state and central, should catalyze the development of a broad-based and easily accessible student loan market with various enabling policies, especially policies to facilitate the seamless recovery of loan amounts from future employers. Instead of directly providing scholarships, as some institutions do, state governments should establish credit guarantee funds that can at least partially underwrite the risks associated with the expansion of the student loan program in the initial years. The central government should also provide partial credit guarantees to encourage expanding the issuance of

such loans beyond students from elite institutions to students taking professional courses at non-elite institutions.

Finally, as with healthcare, after entry, the private sector is largely unregulated, and information asymmetry is pervasive. But more regulation may not be the appropriate response. Instead, there should be a robust system for the independent assessment of the quality of educational institutions, from schools to colleges and universities, similar to the independent assessment function of credit-rating agencies in the financial markets. The ratings should be credible enough to generate the competitive pressures needed to keep institutions, public and private, focused on quality. Organizations similar to the financial market rating agencies or the Quality Council of India or other industry-driven initiatives should be encouraged to offer such ratings.

While the government should refrain from serving as the rating agency, public policy may be necessary to catalyze the development of a rating ecosystem. Public policy should mandate that, over a period of five to ten years, all institutions should arrange to be rated every two years. It may even be worth considering some form of public support for the rating agencies in the initial years to keep costs down and encourage schools and colleges to get rated. A widely available platform, such as the websites in the United States, the United Kingdom, and elsewhere that consolidate school information and facilitate comparisons, could be a powerful force to bridge information asymmetry, promote competition, and improve school quality. A vibrant rating system would also go a long way toward getting regulatory institutions such as the University Grants Commission and the All India Council for Technical Education to relax their highly prescriptive, rules-based regulatory approach.

These reforms, coupled with existing programs such as the National Skill Development Mission, have the potential to transform the human resource development landscape and lay a strong foundation for India's long-term growth prospects.

HUMAN RESOURCES DEVELOPMENT STRATEGY

1. Initiate a learning outcomes improvement mission.
2. Create an Aadhaar-linked student learning trajectory tracking database.
3. Reform the regulatory architecture of the higher education sector.
4. Create a broad-based higher education loan market.
5. Create a system for the independent assessment of the quality of educational institutions.

HEALTHCARE REFORMS

As in education, most of the action in healthcare revolves around state and local governments. The role of the central government lies in enacting the enabling frameworks, setting the agenda, and providing direction and guidance. The central government should provide the institutional and regulatory policy direction, making available different options to address various first-order issues. It should eschew one-size-fits-all approaches that require the health systems in all states to march in lockstep.

In recent years, “universal health coverage” has emerged as the catchall healthcare phrase. Fundamentally, a universal healthcare plan seeks to provide both health improvement and financial protection. But because such plans are often riddled with conflicting politics and economics, any effort at providing universal health coverage must strike a balance between health improvement and financial protection. The former must meet the test of efficiency, in terms of delivering a sizable healthcare bang for the buck; the latter must meet the test of fairness, in terms of offering a financial cushion to protect against catastrophic and financially ruinous health events.

A good place to start is at the bottom. Any debate on healthcare reforms must acknowledge that preventive, promotive, and primary care should be the responsibility of the government and should be publicly provisioned. Therefore, public spending to strengthen the bottom of the healthcare pyramid should be nonnegotiable. But since the existing architecture is dysfunctional, increased spending without fundamental institutional reforms is merely throwing good money after bad.

Any institutional redesign will have to accommodate the vast differences across Indian states. At one end are states like Kerala and Tamil Nadu, with very strong primary health centers (PHCs); at the other end are states like Uttar Pradesh, with virtually nonfunctional facilities. In the former, it may be appropriate to strengthen the existing network of subcenters, PHCs, and community health centers (CHCs), while in the latter it may be prudent to focus on strengthening the subcenters through intensive community mobilization and capacity building and to consolidate care provision in CHCs. In both cases, it may even be necessary to accommodate less than fully qualified providers after sufficient capacity building and with some form of regulation. Certain basic diagnostic services can be offered through the PHCs, wherever possible, or through mobile units in other places.

But fundamentally, across states, there is a compelling case to view the subcenter as the care-providing interface and the PHC as a coordinating and managing entity for preventive, promotive, and primary care. The subcenter should be the point of convergence for the delivery of all national programs, including maternal and child health interventions.

The PHC, administered by a public health manager instead of a doctor, should be responsible for coordinating the delivery of all these programs and should function as a gatekeeper for accessing referral services.

Because of the rapidly growing incidence of noncommunicable diseases, primary care facilities should also focus on creating awareness of and screening for diabetes, hypertension, certain types of cardiovascular conditions, and some cancers, and providing palliative care for patients. Auxiliary nurse midwives can be trained to conduct the screening exams. Depending on their respective capacities, certain states, even some districts, should initiate the process of portable electronic documentation through the electronic medical record (EMR).

Instead of ad hoc line-item allocations, with tight norms and components, the central government financing of primary care should be linked to a five- to ten-year outcomes-focused plan addressing a range of desirable objectives. Apart from routine administrative monitoring, the achievements should be evaluated by third-party agencies. In turn, the state government should establish similar performance contracts with the PHCs. This approach could be phased in gradually across the country, with the strongest states and districts receiving the reforms in the first phase.

This approach should be complemented by more infrastructure investments and personnel deployments to strengthen both the CHCs as first referral centers and the tertiary care hospitals as competitors to private hospitals. Above all, these facilities should seek to reattract private citizens through offering more diagnostic facilities, greater cleanliness and responsiveness, and better management. The Swachh Bharat Mission, the cleanliness and sanitation campaign that is being led by the prime minister himself, should prioritize the cleanliness of hospitals as a priority within the program itself, and the secondary and tertiary care hospitals should be ranked according to cleanliness and given financial incentives. Apart from providing affordable and accessible care for the poor, strong public tertiary care facilities are essential to keeping private providers honest. Because of their large multiplier effects, initiatives to strengthen secondary and tertiary care facilities should be taken up at mission level and states incentivized with financial allocations.

No discussion of healthcare today is complete without taking up the politically popular matter of universal coverage health insurance. Because it is fiscally unsustainable, a more realistic compromise may be to offer coverage for a set of catastrophic medical conditions, ones that contribute the largest share to India's high out-of-pocket spending. Instead of unrestrained consumer choice, there should be a rigorous selection process for empanelment to ensure that insurance coverage does not become a channel to enrich private multispecialty hospitals. For patients covered by publicly financed insurance, public facilities should be the first choice by default. Such patients should not be seen at

tertiary care facilities for simple secondary care treatments but instead should be directed to the revamped first referral units. But all this assumes the service standards at these facilities can be improved.

If this strategy is adopted, it may also be useful to consolidate all the public insurance schemes offered to different categories of people under one umbrella, with a basic insurance plan and different options for additional insurance beyond the basic plan, including a premium care option. The basic plan could be offered by different insurers across the country. As in continental Europe, the basic plan should cover a very basic set of high-incidence catastrophic medical conditions and no more, involve strategic purchases (as a monopsony buyer) at an appropriate level, and be offered for the same premium by all insurers within a region. Private insurers should also offer this basic plan on the same terms while being allowed to differentiate on additional coverage according to the quality of the services offered.

For a country of India's diversity, it is prudent that several strategies exist to provide universal health insurance. States with strong public healthcare systems should try to adopt some form of capitation-based health services delivery model, at least in a few districts. The services of primary, secondary, and tertiary care centers should be closely integrated into a referral system with an EMR system once these centers' geographic and demographic mapping is complete. The deficiencies should be plugged with mobile services delivery and by contracting with private providers. Performance standards and service outcomes should also be clearly defined. Instead of the usual line-item budgeting, the budget allocation should be made on a per capita population basis, disaggregated to subcenter level, as a capitation payment in return for the delivery of a defined set of healthcare services. The capitation could also be confined to just the primary and secondary care activities.

This model would require careful structuring of incentives to prioritize preventive, promotive, and primary care services and minimize referrals, while not encouraging skimping on diagnostic and therapeutic procedures. The providers could even be incentivized with capitation top-ups—both personnel rewards and money for asset creation—for superior health outcomes. The existing public health insurance schemes could be integrated into the capitation model. A district may be the most appropriate capitation unit. This approach could be tried in a few districts and gradually refined, and the lessons learned used to inform a broader rollout. It is essential that such experiments be given adequate operational flexibility and time to stabilize. Accordingly, state National Rural Health Mission (NHM) societies should enter into at least five-year memorandums of understanding with the district NHM societies. The districts should preferably enlist the services of a technical support partner that can assist with capacity-building support to manage the capitation structure.

The success of all these initiatives is critically dependent on reforms to medical education. Most fundamentally, the Medical Council of India should be unbundled to separate the roles of registration, standards setting, and regulation. It may be useful to examine the possibility of establishing central and state regulators for health to regulate areas such as the quality of care, diagnostic services, medical devices, and so on. However, such regulation must be carefully managed to ensure it does not become another stifling layer of bureaucracy or captured by vested interests. Its touch should be light, and regulation setting should involve the participation of professional bodies of medical service providers themselves.

India's medical education system presents an inverted structure: the ratio of basic to specialist doctors is about 1:3; elsewhere the reverse is the case. In light of the acute shortage of medical professionals, a large expansion in medical training facilities and more seats for specialist degrees are urgently required. District hospitals could be allowed to start medical colleges, perhaps beginning by offering paramedical and medical board preparatory courses. The Medical Council of India should address the growing concerns about the deteriorating quality of medical care by increasing the rigor of certification of new graduates. The implementation of the much-delayed proposal for a common national eligibility entrance test for admission to Bachelor of Medicine, Bachelor of Surgery (M.B.B.S.), Bachelor of Dental Surgery (B.D.S.), and postgraduate courses, which was recently cleared by the Supreme Court of India, is an important step in this direction. This should be complemented with a similar standardized test for graduating students. A new cadre of public health managers could be created to address primary care needs through a three-year Bachelor of Science degree in public health. This would allow basic doctors to be redeployed from PHCs to strengthen the far fewer CHCs.

Finally, today, apart from a very small sliver of the population, the overwhelming majority of Indians have no record of their medical history. Each medical consultation is a stand-alone exercise, with attendant problems of information asymmetry. As a result, the quality of care suffers. Under the circumstances, the EMR has the potential to increase the effectiveness of care delivery and to lower costs dramatically. The records should be integrated with the patient's Aadhaar number to enable portability and interoperability across providers. On the conditions coverage side, the EMR could start with maternal and child health interventions, noncommunicable disease screenings, and outpatient and inpatient care. On the institutional side, it could gradually expand from primary care facilities to cover secondary and tertiary institutions, including private providers who chose to access the public network.

Because common standards are essential for interoperability and the development of a large ecosystem of third-party applications, and for security and privacy concerns, the

Indian government's Ministry of Health and Family Welfare should lead the development of standardized open-source EMR software that can be easily customized to meet local requirements. A prudent strategy would entail developing the software application through pilot projects in a few districts through an iterative approach, and then scale up across the country in phases. Such standardization of protocols and platforms would also enable the development of a crowd-sourced ecosystem of mobile phone apps and other software to take advantage of valuable network effects.

The implementation of new initiatives should provide adequate flexibility at the cutting edge. Apart from the EMR, such technology applications as the online management of drug supply chains, maternal and child health tracking, and so forth should be encouraged by making available easily customizable open-source software for the full range of electronic user devices. Integrating the informal providers, the continued capacity building of paramedical staff, making secondary and tertiary care centers attractive for patients, the use of mobile services, and other secondary uses should be left to the discretion of district governments based on a menu of available alternatives. However, each initiative should spell out clearly the expected outcomes, milestones, and timelines, all of which should be incorporated into memorandums of understanding entered into by the district and state NHM societies.

TOWARD A HEALTHY INDIA

1. Initiate an institutional redesign of primary care systems based on state context.
2. Transition to more outcomes-based budgeting for care providers at all levels.
3. Strengthen CHCs and tertiary care facilities.
4. Provide universal, basic health insurance with top-ups.
5. Experiment with a capitation-based service delivery model.
6. Reform the health regulatory systems.
7. Mandate greater regulation and standardization of private providers.
8. Initiate a national electronic health records program.

URBAN GOVERNANCE REFORMS

A 2010 report by the McKinsey Global Institute on urbanization in India estimated that by 2030, cities would create 70 percent of new jobs, produce 70 percent of incremental output, and account for 85 percent of all tax revenue.¹¹⁹ Some of the largest Indian cities are country-sized economies. Despite their size and importance, however, they suffer from weak long-term leadership, are shackled by state governments, are sorely deficient in urban planning, and are acutely constrained by lack of resources and limited capacity.

The current urban administrative disposition aligns the incentives of city leaders and government-appointed municipal commissioners on hygiene factors and projects, such as maximizing tax collections, maintaining cleanliness, promoting road widening and flyovers, and implementing projects. Critical determinants of long-term urban growth—affordable housing, metropolitan transportation systems, education and healthcare, and economic growth and job creation—are far from the priorities of urban administrators.

Indian cities require strong political leadership with long enough tenures, supported by a municipal commissioner and a competent team. The global experience in both developed and developing economies shows that transformational urban development has been powered by the leadership of committed mayors. This demands administrative reforms that allow for empowered and directly elected executive mayors with longer tenures, the devolution of the full extent of eighteen functions under the Seventy-Fourth Amendment to the Constitution, establishment and empowerment of ward committees and area sabhas (composed of local-level representatives), and removal of the mandatory reservation and rotation system for the mayoral post. These changes likely would attract the best and brightest among public-spirited leaders from academia, bureaucracy, corporations, and nonprofits into urban politics. And this experience can be an excellent stage for higher state and national leadership aspirations.

Urban planning, long the Achilles' heel of the country's city administration, needs to abandon its current ad hoc, expediency-based approach. A master plan is a blueprint for the city's future, for its spatial elements and density. Functionally, it guides the city's transportation and utilities plans, future land-use patterns, and locations of economic activity for twenty to twenty-five years. The transportation and utility networks of an area need to be planned, and often constructed, in anticipation of the area's future development trajectory. A cascaded system of long-term planning, with reviews at defined times and minimal conversions in between, should be adopted and enforced in a credible manner. To promote vertical development, Indian cities need to replace their current uniform and low floor area ratio (FAR) regime with a more graduated system. The FAR should be highest in the central business areas and along transit corridors and should

decrease with distance. Land-use conversions on the city margins should be avoided to minimize the development of suburban sprawl.

Indian cities, even the largest, lack sufficient institutional capabilities. Because of the acute lack of internal professional expertise in the management of modern cities, it may be necessary to outsource this function and procure the services of external talent. Apart from hiring consultants, urban administrative systems should institutionalize a provision for the contracting of individual professionals in such areas as planning, finance, transportation, public health, and IT. An initiative such as an Urban Fellows for India that mobilizes public-spirited professionals to work with cities for a one- to two-year period has the potential to attract talent and thereby to create a pool of urban sector professionals. These efforts should be complemented by the establishment of a network of mutually beneficial partnerships with local universities and think tanks.

The 2010 McKinsey Global Institute report documents that India chronically underinvests in its cities, with per capita spending, at \$50, being one-seventh of China's and one-tenth of South Africa's.¹²⁰ The report estimated that to provide a basic level of urban civic services, India would need to increase urban capital expenditure eightfold and operational expenditure at least threefold. The first and most important step in this direction is to broaden the country's narrow property tax base. This would require capturing both unassessed and underassessed properties as well as increasing tax rates, though both remedies, unfortunately, would run into issues of state capability and the political economy.

The other potentially major source of internal revenue is value capture from public assets and infrastructure improvements. The urban planner Donald Shoup articulated one of the great ironies of development: "Why is it so difficult to finance public infrastructure that increases the value of the serviced land by much more than the cost of the infrastructure itself?"¹²¹ Given the near certainty of large increases in property valuation associated with infrastructure improvements, local governments should seek to capture a share of the increment through such instruments as impact fees, development charges, or tax increment financing. Apart from this, local governments own vast extents of prime real estate, which often are suboptimally utilized or just vacant and could be leveraged to maximize value capture. The McKinsey Global Institute study estimated that land monetization could yield about \$27 billion annually, a ninefold increase and more than the current total capital and operating expenditure across all of urban India. Even if only a quarter of this amount materialized, it would dramatically increase city finances.

Even if all these sources of revenue were operationalized, however, cities would still need massive budgetary grant support from state and central governments. States should

be encouraged to adopt these reforms in at least some urban development regions by incentivizing them with the direct devolution of a share of the direct or indirect taxes. Alternatively, cities that embrace these reforms and increase their internal revenue beyond a predefined benchmark (regional) could be incentivized with additional resources from the government of India.

Since state governments may be unwilling to grant more authority to the mayors of the largest cities and state capitals, it may be prudent to consider such governance experiments in second- and third-tier cities. In the absence of adequate capacity, these reforms are most likely to create a period of instability and chaotic disequilibrium. But postponing devolution on these grounds will not only prolong the current problems but also worsen them.

A combination of institutional reforms that devolves the full extent of the eighteen functions under the Seventy-Fourth Amendment, empowers elected mayors with executive functions, builds capacity by drawing on external expertise and initiating partnerships with local institutions, develops innovative value capture initiatives, and transfers a share of the direct and indirect taxes has the potential to be a game changer in India's urban development.

URBAN GOVERNANCE REFORMS AGENDA

1. Empower mayors as authorities with full executive powers, at least in second-tier cities.
2. Fully devolve all eighteen functions of the Seventy-Fourth Amendment and establish and empower ward committees and area sabhas.
3. Focus on urban planning by instituting cascaded master plans and higher floor area ratios.
4. Broaden the property tax base by capturing unassessed and underassessed properties.
5. Adopt value capture methods to raise internal resources.
6. Build institutional capacity through institutionalized lateral hiring, internships (such as Teach for India), and partnerships with local institutions.

AFFORDABLE HOUSING AND UNSHACKLING LAND MARKETS

No ingredient is more important to the success of urban growth than the supply of adequate affordable housing for the large numbers of migrants relocating to cities. The Ministry of Housing and Urban Poverty Alleviation has estimated a deficit of 18.78 million housing units in 2011, with 95 percent needed by lower-income groups.¹²² To put this in perspective, the total number of housing units sanctioned in seven years under the flagship Jawaharlal Nehru National Urban Renewal Mission is 1.44 million, of which fewer than 600,000 units have been completed and occupied. It is now proposed to bridge this deficit by 2022.

Public housing projects cannot make a dent in such a huge demand. Demand on such a scale can be met only through private markets. Public support should come in the form of making renting and ownership affordable. Unfortunately, the private market for affordable housing, especially for those at the lower end of the income ladder, is non-existent. One of the perverse features of India's urban housing market is that while 90 percent of the demand comes from those with annual incomes below INRs 500,000, units for them make up just 10 percent of the supply.¹²³ Furthermore, low-income housing forms a negligible proportion of the total mortgage origination and is largely funded by the small housing finance companies. Formal rental markets are virtually absent.

Under the circumstances, the objective should be to increase the stock of affordable housing by creating attractive conditions for developers to build for this market and by lowering the information asymmetry to enable banks and other lenders to offer mortgages to people with little or no formal credit history. Policies to advance the first goal should include ones to lower land cost, simplify and expedite permits (including environmental permits, conversions, and building approvals), and reduce taxes (such as the stamp duty and the service tax). Policies to achieve the second goal include earmarking a share of housing credit for lower-income housing, expanding credit bureaus to consolidate all consumer durables and other hire-purchase transactions, and vastly simplifying processes for accessing mortgages and repossessing defaulting properties. The Real Estate (Regulation and Development) Act of 2016 provides an excellent opportunity for enabling such transparency.

These policies should be complemented by another set of policies to eliminate the distortions in the land market. A plan should be phased in over eight to ten years for a simultaneous increase in official guidance value to equalize with market value and a lowering of the stamp duty. This can be done in a revenue-neutral manner to increase political

acceptability by creating a win-win situation for state and local governments. If, in addition, information on the registration values for each area was made publicly available, a database of property transactions and prices from all possible sources (housing lenders, real estate agencies and websites, and registration departments) was set up, and stricter monitoring of housing finance transactions was put in place, these steps would also have the effect of limiting the origination and circulation of black money in real estate transactions.

The poor quality of land title documentation, coupled with the country's presumptive (as opposed to guaranteed) land registration system, means that purchasing land is fraught with risks. Neither the quality of titles nor the registration process is amenable to short-term solutions. Under these circumstances, title insurance emerges as a prudent compromise. Two important enablers—bridging the information asymmetry on title encumbrances and on mortgage origination—have the potential to catalyze the creation of a title insurance market. This would require the establishment of a depository of this information, captured and made available in a searchable and user-friendly manner.

Limited land availability, a rapidly growing urban population, and the problems of sprawl point to high-density vertical growth as the way forward. The highly restrictive FAR of India's cities must be relaxed along transit corridors, in areas surrounding transit stations, and in newer developments. Relaxation of FAR requirements could also incentivize urban renewal in blighted or declining areas and lower the cost of affordable housing units.

Governments at all levels—central, state, and local—are the biggest landlords in most cities. An estimated 12–18 percent of the total urban lands are suboptimally utilized or vacant.¹²⁴ Apart from the central public sector enterprises, the Ministries of Defense, Railways, and Shipping hold vast tracts of land within the country's largest cities. The Salt Commissioner's Organization holds 61,000 acres across mainly five states. In Mumbai alone, it owns nearly 5,400 acres (21.6 square kilometers), or 30 percent of the total area available for residential development in all of Greater Mumbai.¹²⁵ A calibrated release of these vast hoardings and their high-density development, both directly by government and through public-private partnerships, can put sharp downward pressure on property prices.

Finally, in the context of the deadlock in the central land acquisition legislation, apart from considering their own legislation, state governments should examine the possibility of procuring land through partnerships such as land-pooling or town-planning schemes. The former, which is being tried on a massive scale for the new capital city of Andhra Pradesh, and the latter, which have been successfully implemented for decades in Gujarat, are excellent examples of consensual strategies for land procurement that can be used not just by governments but also by private investors.

AFFORDABLE HOUSING AND LAND MARKET REFORMS

1. Simplify and expedite the process for acquiring approvals and permits.
2. Earmark bank housing credit for affordable housing.
3. Phase out guidance valuation and lower the stamp duty.
4. Create a national property valuation registry; develop an expanded Residex.
5. Catalyze a market for title insurance.
6. Increase the FAR along transit corridors and around stations.
7. Develop a calibrated use of government-held lands for affordable housing projects.
8. Use land-pooling arrangements to procure land.

EASE OF DOING BUSINESS REFORMS

Many conversations around improving India's business environment focus either on macroreforms or on easing one-off transactions. Proposed macroreforms include improvements to infrastructure facilities; the relaxation of labor market regulations, such as the Industrial Disputes Act, that set onerous conditions for hiring labor; and improvements to property titling systems, which make land transactions a nightmare. Reforms of onetime transactions include measures to ease incorporating firms, purchasing and registering property, obtaining building and other permits, and getting utility service connections.

But even if these constraints were eased, the business environment likely would not change dramatically. That would require a transformation in how the Indian state interacts with the private sector. Businesses constantly deal with officials from a wide variety of departments—labor, environment, taxation, local governments, police, and customs and immigration—in the course of normal operations. These interfaces often involve repeated game playing that goes beyond the onetime interaction and provides officials, even in the most deregulated environments, with considerable leverage over businesses in their jurisdiction.

The additional cost of preventing whimsical actions and harassment adversely affects business competitiveness, especially of start-ups and smaller firms. Mitigating this problem entails creating an environment in which such harassment and corruption are

minimized and strengthening the state's ability to deliver on its commitments effectively. Transaction costs can be reduced by minimizing and simplifying bureaucratic layers, eschewing rigidly prescriptive regulatory standards, outsourcing public service delivery to eliminate interfacing with officials, and instituting web-enabled workflow automation of departmental processes. Technology also can have a powerful role in simplifying and expediting processes, bridging information asymmetry, and ensuring accountability.

The various types of mandatory labor-related information filings illustrate the problem. According to current labor laws, service enterprises and factories must maintain twenty-five and forty-five registers, respectively. They must file semiannual and annual returns in duplicate and as hard copies. Furthermore, the salary and attendance documents have tens of columns. A recent estimate found that the country's 50-million-plus enterprises will use 5 billion sheets of paper each year in complying with labor laws.¹²⁶ Worse still, these papers are unlikely ever to be scrutinized and will merely gather dust and take up space in public offices. The vast majority of these filings should be dispensed with and the essential ones captured online.

Another recommended reform is the adoption of a unique enterprise identity number to replace the maddening array of identification numbers required for the administration of various rules and regulations. These include the Corporate Identity Number (unique twenty-one digits) from the Registrar of Companies, the Tax Identification Number for Commercial Taxes (unique eleven digits), the Service Tax Number (fifteen digits, alphanumeric), the Permanent Account Number (ten digits, alphanumeric), the Central Board of Excise and Customs number (the Permanent Account Number plus two characters), the Employees' Provident Fund number (eleven digits, alphanumeric), and at least ten other numbers required by taxation, labor, or other central government laws. Apart from these, each enterprise gets a number, either for registration or licensing, issued under at least twenty-odd state or industry or labor legislations. This multiplicity of identification numbers prevents interoperability of applications and causes duplication of data management. The extra effort adds several layers of unproductive administration and works against the ease of doing business.

In this context, a single identification number, such as the Permanent Account Number, for a firm can be a game changer in simplifying processes and enabling process automation and integration. Businesses could sign on to an Ease of Doing Business portal using a single number and complete all their regulatory, tax, labor, and other individual departmental filings. Furthermore, the portal could provide a platform to integrate the workflow of individual processes and departments, thereby helping avoid data duplication as well as enhancing the ease of doing business. If sufficiently simple, it would dramatically lower the regulatory and other compliance costs for businesses and encourage greater business in the formal economy.

Technology has a powerful role to play in simplifying and expediting processes, bridging information asymmetry gaps, and ensuring accountability. For example, large gains are possible in transportation logistics management. It is estimated that trucks spend one-quarter of their journey times at checkpoints, the 650-odd interstate border posts, and city entrances, and 15 percent of their time at toll plazas.¹²⁷ These vehicles cover just 250–300 kilometers (about 155–186 miles) a day, compared with 800 kilometers (about 500 miles) in the United States, making the cost of the logistics more than the entire wage bill for manufacturers. The World Bank estimates that halving such delays would cut freight times by 20–30 percent and logistical costs by 30–40 percent.¹²⁸ Electronic tolling, the unique numbering of vehicles, and e-billing, coupled with the imminent goods and services taxation, could achieve this objective. Such a nationwide transportation logistics management system could potentially be the most powerful force for interstate trade since the unification of the princely states and could usher in a truly integrated pan-Indian market for goods and services.

Similar gains are possible in port logistics management. Just the documentation compliance for exporters takes sixty-one hours at Mumbai port, versus the Organization for Economic Cooperation and Development members' average of just five hours, and at the respective costs of \$104 and \$36.¹²⁹ Workflow automation of berthing, customs and immigration services, standards certificates and invoices, manifests and certificates of origin, and logistics management at ports and airports could dramatically reduce the time drain at the country's entry and exit points. All these processes and the relevant paperwork should be made available online to enable the trading and shipping agencies to upload the requisite documentation for approvals well in advance. Furthermore, the workflow software for all the individual port services, public and private, should be integrated on a common portal to ensure organic data seeding and automatic retrieval across applications.

A prominent area of discussion in respect to improving the business environment concerns easing labor market regulations. The government has already laid out an ambitious labor reform agenda. Apart from consolidating the existing forty-four labor laws into four labor codes, all organized and unorganized sector workers and employers would be assigned unique identification numbers, which would considerably simplify access to employee benefits and ease the current tortuous filings and tax payment obligations of employers. These initiatives are in the initial stages of implementation and need to be pursued to completion. However, the political setting in which these reforms are to be executed and the logjam in the Indian Parliament make them difficult to pull off. In the circumstances, more immediate results could be achieved by pursuing the equally important reforms of labor taxation.

The fundamental problem with India's manufacturing is that firms start small, in the informal sector, and remain small and informal. This situation engenders an inefficient equilibrium of low productivity, low wages, inadequate social protections, limited investment, and stunted growth. While it is possible that restrictive hiring and firing policies encourage firms to start small and informal and remain so, another possibility is that the high labor taxes, payable by both employers and employees (up to 32 percent of wages are deducted for pensions and insurance from the wages of those with smaller incomes, whereas just over 5 percent are deducted from the wages of those with higher incomes), encourage much the same and may be a more proximate deterrent to starting and hiring in the formal sector.¹³⁰ It is certain that both restrictive labor regulations and a high rate of labor taxation contribute to keeping firms small and informal. What is not certain is which is the greater constraint facing firms.

A cautionary tale takes shape. A typical entrepreneur starting a textile unit is more likely to start small and not be able to afford higher salaries. However, by offering low salaries, the entrepreneur is also unlikely to be able to attract workers, especially in light of the prohibitively high payroll deductions. So the firm prefers either to start in the informal sector or to use contract labor. Once it starts in the informal sector, it is trapped in a low-level equilibrium. Exiting from that is constrained by several factors, including informality itself, as well as restrictive labor regulations.

Therefore, a more prudent strategy involving labor market reforms would revolve around lowering mandatory payroll deductions and replacing them with publicly funded social protection, currently programmed for a gradual phaseout. As a step in this direction, the *Union Budget 2016–17* announced that the government of India would pay the employer's contribution of 8.33 percent to the Employees' Pension Scheme in the first three years for all new employees with salaries up to INRs 15,000 who enroll in the Employees' Provident Fund Organization. Extending this idea further, it may be useful to make the current mandatory employee contributions voluntary.

In light of the growing prominence of the construction sector, policy measures that encourage the transition of the largely informal construction workforce to formality may be another priority area for action. A comprehensive social safety net for construction workers may provide a powerful nudge in this direction. The potential impact on productivity in the fastest-growing sector is immense.

The various labor-side measures discussed in this section would be expected to wean industrial policy away from its traditional focus on physical capital incentives and toward investing in human resources.

EASE OF DOING BUSINESS REFORMS

1. Lower the transaction costs of repeated transactions.
2. Simplify mandatory business filings.
3. Introduce workflow automation of immigration, customs, and logistical services in ports and airports.
4. Use e-tolling, a unique vehicle number, and the goods and services tax to establish a nationwide transportation logistics management system.
5. Introduce a single identification number for enterprises and workflow automation.
6. Lower mandatory payroll deductions for those with lower salaries.
7. Introduce policies to encourage formality in the construction sector.

INFRASTRUCTURE EXPANSION MISSION

Infrastructure constraints remain arguably the biggest obstacle to the achievement of a sustained period of high economic growth. Inadequate road and rail transportation capacity, port handling and logistics management bottlenecks, an unreliable power supply, and a deficient urban infrastructure not only erode business competitiveness but also constrain entrepreneurship and business expansion.

A long-term plan for massive investments in infrastructure, with public spending providing the basis and private capital leveraged where private investors are best positioned to bear the risks, has to be formulated. A prioritized shelf of projects in different sectors, supported by a project-centric financing strategy—using public finance, public-private partnerships, and private finance, among other sources—should be prepared and rolled out in a phased manner.

A few such projects stand out. A mission-level project to develop dedicated freight corridors, expand the national highway network, and establish road and rail connectivity for ports should assume top priority among all infrastructure projects. Apart from the Eastern and Western Dedicated Freight Corridors, other corridors with high traffic density should be covered in a phased manner. Similarly, the remaining links of the national highway network should be completed and those with the highest traffic density should be widened to six to eight lanes to accommodate demand forecasts for the next three decades. The potential of these road and rail networks is best realized when they are connected to the existing ports. These projects could reasonably provide the biggest catalysts for the development of industrial corridors and propel the Make in India initiative.

In the energy sector, the ambitious renewables program raises issues of grid management and grid stability. It necessitates investment in new peaking plants and, more important, the retrofitting of existing thermal plants to serve as peak load providers. Transmission capacity is fast becoming a binding constraint on the power sector. Because of the long times needed to plan and place transmission lines, it is necessary to create a shelf of projects to handle at least three times the current capacity and bring them online over the next decade and a half.

The weakest link in the chain is distribution. In recent years, loss reduction efforts have plateaued and are likely to remain flat with business-as-usual measures. Apart from reducing losses, governments should commit themselves to raising tariffs to ensure cost recovery and to reforming free farm power. A first-order requirement is to measure and audit energy distribution, not through fancy advanced technology solutions but through simple real-time metering of feeders and feeder-consumer mapping, followed by rigorous monitoring and enforcement. The Ujwal Discom Assurance Yojana, or UDAY, scheme, the financial revival package for distribution companies, could potentially be the tipping point for fiscal prudence with respect to ensuring that tariffs keep rising to cover the costs of service.

Technology and Aadhaar together are a potentially powerful combination to reform farm power. Instead of having their supply times restricted, farmers could be assured equivalent (or higher) units of a free supply. Farm connections would be metered and agriculture tariffs fixed. Each farmer would pay a monthly electricity bill, whereupon the previous month's bill would be reimbursed to the extent of the free units, with the funds deposited into the farmer's Aadhaar-enabled bank account. Furthermore, the farmer could be incentivized to reduce consumption through reimbursement of an amount proportional to unconsumed units (of the free units allotted).

There is arguably no more effective development initiative than extending all-weather roads and assured three-phase electricity to rural and remote areas. The multiplier effects in terms of opening up remote economies, integrating them with urban centers, and dramatically expanding economic opportunities outweigh those of any other initiative. The ongoing programs should be expedited and monitored with great rigor.

The importance of private capital, especially on the scale required, demands a credible, fair, certain, and prudent procurement and contracting process. Certain rules of the game must be followed. First, detailed project reports should be made without compromising on rigor or introducing overly optimistic forecasts. Second, public-private partnerships are most effective when there are also significant efficiency gains to be realized from private equity participation, that is, when they are not just a means to mobilize private finance. Third, project costing should be done to internalize all possible risks,

including cost escalation and interest accumulation. This assumes great significance because the Chaturvedi Committee formula for project costing caps cost escalation at 5 percent, instead of using a pass-through for cement, steel, and bitumen, and does not allow an increase in project costs due to the accumulation of interest during construction. Extending the concession tenure by the period of delay without addressing these deficiencies in the formula is merely kicking the can down the road. Finally, governments have to bear all those significant construction and commissioning risks that cannot be mitigated or diversified away through available market mechanisms.

In road construction, because of the significant nondiversifiable construction and traffic realization risks, and with the sector's long history of attendant cost overruns and traffic shortfalls, private developers may be in no position to bear those risks. Under the circumstances, governments may have to bear the risks and construct the project before outsourcing operation and maintenance to long-term concessionaires. The recent revisions in the National Highways Authority of India contracting structure signaling a shift from the build-operate-transfer model to the engineering, procurement, and construction model are an acknowledgment of this reality. Once the construction risks are off-loaded and the project is commissioned, it becomes possible to attract the large stock of patient foreign capital from pension and insurance funds, private equity, infrastructure funds, and other institutional investors.

Apart from these considerations, in recognition of the near inevitability of renegotiations in long-term concessions, such contracts should be structured with adequate flexibility for nondiscretionary renegotiations when the need arises.¹³¹ A few principles could guide the creation of any renegotiations policy framework. First, concessionaires should internalize the cost of renegotiations. The use of alternative contracting approaches, such as the least present value of revenue or minimum income guarantee models, which are based on commercial viability considerations, can help easily internalize the costs and thereby mitigate renegotiation risks. Second, experience from across the world shows that contracts that have investment obligations and those under price-cap regulations, as in transport and water, are most vulnerable to renegotiation. Such contracts would benefit from a built-in provision for periodic review, with clearly defined contingencies that would precipitate such reviews, as well as a clear statement of their scope. In such projects, the British model of price cap regulation—whereby tariff increases are capped according to inflation, efficiency improvements, and capital investments, and the bid value is valid for only the initial few years and is revised after regulatory reviews over five- to seven-year periods—may be more appropriate.

Third, the renegotiation process should be apolitical and institutionalized. The original mandates of the regulators should clearly outline the scope, terms, and protocols for any renegotiation. The legal basis of the entire renegotiation and its appellate processes

should be clear and strong and insulated from the government. All these conditions should be stipulated in the contract. Furthermore, regulatory autonomy is critical to curbing both political opportunism and corporate greed, besides creating institutional credibility surrounding such contracts. This credibility can be enhanced by involving a panel of reputable sector specialists in the renegotiations process. The public utility (resolution of disputes) bill announced in the *Union Budget 2016–17* should incorporate these principles.

Fourth, where the project valuation is clear, governments should also consider buying out the developer's investments and then contracting out the project anew. Power projects are potentially amenable to such arrangements. In such cases, to avoid moral hazard, the amount payable for termination should be contingent on the bids received during the rebidding process.

Fifth, cost overruns during the construction phase commonly precipitate renegotiations, especially on price or tariff increases. In this regard, the practice in Australia and the UK of adjusting for a so-called optimism bias, calculated from the history of cost overruns in all projects in the sector, while writing contracts can be useful. Scenario planning that considered various contingencies of risk materialization and the actions that would follow would help mitigate the adverse consequences of risk appearance.

Finally, renegotiations are more likely when competition is intense and on contracts negotiated in good times when plentiful credit is available. Just as investors pour money into asset classes, driving up valuations and inflating bubbles, developers throw caution to the wind and submit lowball bids with excessively optimistic revenue projections that reflect the euphoria of the boom. In such times, financial markets fail to do the due diligence that prevents excessive risk-taking by euphoric developers. Once the business cycle turns down, affecting the project's commercial viability, the developer is left with no option but to seek renegotiations. Governments should therefore be cautious in evaluating excessively attractive bids made in euphoric times and when competition is high. The real cost of such apparent free lunches follows, but not until much later.

As the portfolio of completed public-private partnership projects expands, developers are likely to exit by securitization or by direct stake sales. Exits of both types are now allowed in all the National Highways Authority of India road projects. And the agency is seeking to monetize its commissioned road assets. Given the difficulties associated with raising toll tariffs and the likelihood that the concessionaire will skimp on maintenance and improvements, monetization by outright sale, as happened with the much-studied examples of the Indiana Toll Road and the Chicago Skyway, may not be the right strategy. A more prudent strategy may be ten- to fifteen-year tolling along with operating and management concessions. Such exits, as the example of Delhi Airport Express Metro link shows, also raise concerns about the concessionaire's incentive to minimize life-cycle costs.¹³²

Fundamentally, because of the uncertainties involved and the vastly different nature of the implementation environments, it is not possible to graft uniform best-practice models of procurement and contracting onto infrastructure projects. Accordingly, the procurement processes, conditions, and contracting documents should be revised regularly to incorporate lessons learned from the most recent experiences.

INFRASTRUCTURE MISSION

1. Prioritize a shelf of projects, including for direct freight corridors, national highway segments, and port connectivity.
2. Improve power grid management by building peak capacities.
3. Plan a threefold transmission capacity expansion program.
4. Reform power distribution through energy audits, increased tariffs, and free farm power reforms.
5. Extend all-weather roads and a three-phase electricity supply to remote and rural areas.
6. Institute public-private partnership contracting policy reforms.
7. Develop a contract renegotiations framework.
8. Develop a policy framework for the monetization of commissioned infrastructure assets.

BANKING SECTOR REFORMS

The most urgent requirement to put the economy on a sustainable growth path is for banks to resume normalcy in lending. For the year ending March 2016, the total of the banking system's net owned funds was a little over \$118 billion, the stated gross nonperforming assets were around \$90 billion, and the estimated level of nonperforming assets, including restructured assets, was around \$190 billion, thereby leaving the banking system as a whole with negative equity.¹³³

The elevated and rising level of stressed assets—17.2 percent of gross advances (\$190 billion) as of March 31, 2016—makes lenders wary of assuming any risks. Independent analysts estimate the level should be reduced to be around 30–40 percent in such sectors as steel and power.¹³⁴ The equity infusion needed to meet the higher capital reserve requirements under the Basel III rules is an additional INR 3,100 billion by

2019, as estimated by the P. J. Nayak Committee.¹³⁵ Setting aside money to meet capital reserve requirements not only affects new project lending but it also limits the scope for reviving stalled projects.

Because of the dominant role of banks in India's credit transmission, restoring their health and recapitalizing banks to create the space for further lending should be an immediate priority of the government. The revival of private investment, especially infrastructure spending, depends critically on a healthy banking system.

The overhang of bad loans is not going to go away on its own. Nor can the loans be auctioned off, as was done in the United States in the aftermath of the subprime lending crisis. Unlike in the United States, the vast majority of these assets are owned by public sector banks. More important, a significant share of the bad loans involves large infrastructure projects—some under construction, some completed—and these loans cannot simply be sold in the same fashion as conventional retail and commercial loans.

The completed projects may be auctioned off to private asset reconstruction companies (ARCs), stripping equity holders and imposing haircuts on banks, with a back-end clawback of some part of future revenue to the banks and equity holders. This approach could avoid the political backlash that would likely occur should the asset generate windfall revenue in the future. But with the current model of ARCs, the vast majority of which are incorporated as trusts, such sales may be little more than an exercise in smoke and mirrors because the trusts issue securitization receipts to the same bank and manage the bad assets for a 1–2 percent management fee, a move that results in the reclassification of the bad asset from loan to investment on the bank's balance sheet.

Rather than engage in this roundabout, banks should make a clean break with the asset, taking losses and auctioning off nonperforming assets completely to the ARCs, which should then have the freedom to resolve the assets as they choose. Owing to the nascent and narrow market for such assets in India, an enabling regulatory environment is essential to the success of the restoration process. To start, the ARCs should be allowed to immediately sell or lease the assets they have taken over. The existing regulations on mandatory open offer for listed companies in the takeover code must be relaxed.¹³⁶ Furthermore, ARCs should have flexibility on secondary sales to private equity or leveraged buyout groups and infrastructure funds, as well for pooling and securitization of their assets. Another step would be to encourage the development of a market for securitization receipts. The announcement in the *Union Budget 2016–17* allowing 100 percent foreign institutional investors in ARCs and in a single asset is a step in the right direction.

Most ongoing projects are likely to be commercially viable once completed. It would therefore be prudent to restructure and complete them at the earliest, if need be with more equity infusion. The construction risks associated with them make them less

attractive for long-term investors, such as infrastructure debt and equity funds. In the circumstances, a preferable strategy would be to value them and sell them off to a public entity, such as the India Infrastructure Finance Company Limited (IIFCL). The IIFCL, by itself or through the newly created National Infrastructure and Investment Fund (NIIF), could raise dedicated infrastructure equity and debt funds, leveraging long-term domestic and patient foreign capital, to finance these purchases and infuse the additional capital required. More than individual banks, these funds, with their patient capital stock and professional project management units, are more likely to ensure completion of these projects and make them commercially viable. The financing patterns could even be restructured once construction was completed. A distinction may have to be made between public good assets, such as roads, and private assets, such as power and steel plants, regarding their extent of exposure to public funds.

The entire resolution process should be conducted quickly and in a credible manner. To mitigate decision paralysis, the process should be concurrently audited and all requisite clearances obtained to preempt ex post facto audit and vigilance objections. Finally, the resolution of nonperforming assets would have to be accompanied by a clear recapitalization schedule and a grant of full operational autonomy. In fact, it might be even worth deviating from the fiscal consolidation path if the additional fiscal spending were transparently dedicated to bank recapitalization. The operational autonomy would have to include refraining from saddling banks with various social obligations without sufficiently compensating them. The government would have to act as an investor rather than as a sovereign.

The entire process of asset resolution, recapitalization, and the devolution of greater autonomy to banks must be complemented by the phased dilution of the government's stake in banks, including full exit in some cases, and the infusion of top-tier talent into leadership positions. The major part of the disinvestment plan should be back-loaded and oriented toward a not-too-distant future when the reforms have restored market confidence, got credit flowing, and raised valuations. The market's embrace of the Bank of Baroda, which appointed a new board and expedited the declaration of all its nonperforming assets, suggests a plausible outcome.

Finally, the government must move forward its recent initiatives on payments and small banks and new universal bank licenses to expand the breadth and depth of the country's banking sector. The previous RBI governor had himself signaled the need to make the banking system vibrant through the establishment of more differentiated credit intermediaries, such as custodian banks and wholesale banks.¹³⁷ As Tamal Bandopadhyay recently wrote, "India needs more banks of different shapes, sizes and business models."¹³⁸

The new entrants, besides expanding coverage to include remote and rural areas, the poor and unbanked, and mini- and microenterprises, would exert competitive pressures, with

the potential to disrupt the prevailing banking system, allocate resources more effectively, and help manage risk more efficiently. Such pressures could also force the politically difficult choices of increased operational autonomy, consolidation, and privatization. Public policy should create the enabling conditions for these dynamics to gradually unfold. Realizing these objectives will take time, but the foundations are likely to be much stronger for the emergence of a vibrant and sustainable banking sector, one capable of meeting the enormous challenges of financial intermediation for a vast and fast-growing economy.

REINVENTING THE BANKING SECTOR

1. Introduce reforms to the ARC model, including the choice of placing nonperforming assets in a trust or selling them outright.
2. Use the IIFCL/NIIF provisions to resolve incomplete public good infrastructure assets.
3. Develop a policy framework for the resolution process, to include concurrent audits.
4. Recapitalize the banks.
5. Complete operational autonomy and phased stake dilution of public sector banks.
6. Develop a more differentiated banking system.

SHRINKING THE INFORMAL ECONOMY

The primary reason for India's very narrow industrial base and low tax-to-GDP ratio is the country's widespread informal economy. Some estimates put it in the range of 40–50 percent of GDP.¹³⁹ But its influence is far more than this figure can convey. A more intuitive measure of the size of the informal economy is the scale of informal employment, which accounts for nearly 84 percent of employment in the nonagriculture sector and 93 percent of total employment, a share far higher than in any other economy, large or small.¹⁴⁰ Pretty much everything that happens in rural India and a large part of trade and small economic activity in urban areas is informal. In fact, it would be fair to say that in the majority of financial transactions, at least one end of the transaction is informal. Apart from the massive revenue loss to the government, the informal economy has a deeply corrosive effect on the transmission of market dynamics and market efficiency, limits the productivity of both capital and labor, and hampers the effectiveness of public service delivery.

Shrinking the informal economy is essential to India's sustainable high-growth ambitions. Because of its pervasive and broad-based nature, actions would be needed at multiple levels. One way to address this is to harness the power of information technology and data management to capture financial transfers from the bottom up and move them into the formal system.

The combination of Jan-Dhan Yojana, the national financial inclusion program to ensure access to banking services, the Aadhaar number, and the mobile phone—referred to as the JAM trinity in the government's *Economic Survey 2014–15*—offers an unprecedented opportunity to dramatically expand financial inclusion. This, coupled with the newer payment systems, more small banks, and the rapid uptake of mobile phone-based payment platforms, is a potentially powerful force to nudge a vast majority of previously unbanked individuals to formalize their financial transactions.

The JAM trinity would enable a workflow-automated targeting of the whole constellation of social welfare programs involving some cash payments made into a beneficiary's bank account. Apart from curtailing fraud and waste, it would also ensure that all eligible people, especially the poorest among the poor, were able to access their rightful benefits.

In this context, the expenditure information network (EIN) recommended by the TAGUP Report of 2011 assumes great relevance.¹⁴¹ The EIN is proposed as an online workflow automated application to manage and monitor all fund releases from central and state governments, right up to the last mile of the transaction chain. Apart from providing a massive boost to the efficiency of the government's treasury management and ensuring timely access to program funds, it would help capture the end use of all public funds. The JAM applications could also be plugged into the EIN.

Similarly, the Goods and Services Tax Network (GSTN), designed to manage the massive chain of indirect tax appropriation and reimbursements, could help capture the vast volume of retail commercial transactions. If implemented effectively, these initiatives could make a significant dent in the country's massive informal sector. In any case, it would do no harm to encourage migration into these formal networks with financial and other incentives.

A combination of all three—the JAM, EIN, and GSTN—would offer unprecedented network effects encompassing all the economic transactions involving the state. Apart from the obvious benefits of reducing evasion and leakages and better targeting of public spending, this system could dramatically increase the efficiency of public service delivery and the utilization of scarce public resources. It would also be a much-needed first step toward expanding the formal economic base and increasing the tax-to-GDP ratio. The integration of these three applications would have to be done very carefully and with an eye to safeguarding the security and privacy of personal and financial information.

This mechanism for moving informal sector participants into the formal economy should be accompanied by a series of other measures to curtail the origination of the largest informal markets. The measures already initiated or proposed to combat black money and money laundering should be expedited and implemented effectively. A revenue-neutral strategy to reduce registration and stamp duties on land transactions while simultaneously lowering and phasing out the differential between the official guidance and the market value of property would be a huge step in the direction of shrinking the informal economy. This should be complemented by measures to limit cash transactions for goods and services, especially for purchases of gold, vacations, and medical services, beyond a progressively declining value. If these measures are implemented in a sustainable manner, their cumulative effect could dramatically reduce the size of the informal economy.

A JAM-GST-EIN APPROACH TO SHRINKING THE INFORMAL ECONOMY

1. Use JAM to manage all welfare and program transfers.
2. Use EIN to capture all other payments by the government.
3. Use the GSTN to capture marketwide transactions involving economic value added.
4. Introduce other policies to limit cash transactions.

PUBLIC SECTOR MANAGEMENT REFORM AND LATERAL ENTRY

India's bureaucracy and its management of public sector units have been the subject of much scorn and criticism. Lateral entry into senior-level positions has been advocated as a possible solution. Supporters argue that it would instill fresh energy and thinking into an insular and complacent, often archaic, bureaucracy and enable the entry of right-minded professionals and the adoption of best practices to improve governance. Skeptics highlight the risk of lateral entry becoming entrapped in a "spoils" system as a result of the nature of the country's political system. Because of the associated uncertainties, it may be prudent to adopt a cautious and incremental approach.

There should be a carefully calibrated process of infusing external talent into the public sector. To start, a set of the largest public sector entities—banks and insurers, oil companies, manufacturing units, and power plants—should be allowed to hire talent for

board positions through a global competitive and professional sourcing process and at far higher compensation levels than typical public sector compensation packages. The posts should be advertised globally and open to internal candidates, other government employees, and private candidates. In addition, the largest public sector entities should have complete operational autonomy, enshrined in a five-year performance contract between the company and the ministry concerned. Subsidies, including the costs associated with implementing government programs,¹⁴² should be monetized and reimbursed out of public funds.

Short of outright privatization, this would be the most effective strategy to improve large public sector firms' performance while also credibly signaling the government's strong commitment to improving the governance of public sector units. Because of their size, all these entities, and therefore their leadership positions, directly and substantially affect the economy, arguably even more so than positions within the government. A significant improvement in the performance of each of these entities could also generate considerable positive externalities for the sector itself. Apart from improved leadership and governance, it would boost company valuations, thereby enabling the government to capture greater value in subsequent divestments.

In conjunction, some number of senior-level positions in the government, such as those for mission- or project-mode interventions across sectors, should be filled through similar open competition involving both public and private sector talent. The recruitment rules will have to be tailored to mitigate the risks of a revolving-door strategy and the potential for cronyism, which is never far away with such arrangements. This should be complemented by liberalized norms that allow civil servants to work outside government, for example, in multilateral agencies, with nonprofits, and in the corporate sector, for short periods of time. By enabling exposure to market practices and fresh ideas, this recess as much as lateral entry would likely help achieve the objectives of lateral entry itself.

The government of India's internal human resources management policies must undergo a radical revision. It is settled wisdom across the world that senior-level appointments entail a process of matchmaking. The employers select those they find most competent from among interested applicants. The prevailing system of postings to various ministries in the government of India satisfies neither requirement.

It may be worth examining the proposal that all such appointments at the director level and above be handled through a process whereby the ministry or department concerned announces the vacancy, interviews and evaluates applicants according to a set of parameters and recruitment guidelines, and recommends a panel of two or three names for the approval of the competent authority. Those candidates not considered are free to apply elsewhere, though an upper limit of three (or five) applications in any two-year period

could minimize frivolous applications. Entrusted with the responsibility of recruiting officials, departments would not be able to blame anyone for poor performance because of personnel deficiencies and would therefore face greater accountability. Furthermore, this approach would eliminate the possibility of officers being assigned to positions against their wishes and so would make them more accountable for their performance.

Finally, in keeping with the “minimum government, maximum governance” theme that Prime Minister Modi espouses, state and central governments should reexamine their current administrative structures. It may not be necessary to have more than two or three ministries for each of the following areas: social welfare, public goods provisioning, infrastructure, industrial development, regulatory affairs, and finance. All departments within a ministry should be consolidated into a single unit. This would eliminate duplication, realize organic synergies, and spur greater coordination in program and policy implementation. And because of the acute scarcity of top-quality administrative talent and pervasive personnel vacancies, such consolidation may be an important step toward improving state capability.

PUBLIC SECTOR HUMAN RESOURCE MANAGEMENT REFORMS

1. Open competitive recruitment to executive positions of public sector enterprises.
2. Encourage lateral entry of candidates to head mission-mode programs.
3. Introduce reforms to postings to government ministries.
4. Implement the phased introduction of performance management systems.
5. Merge and consolidate departments and ministries.

IMPROVING STATE CAPABILITY

Lant Pritchett, the Kennedy School of Government economist and education researcher, famously called India a “flailing” state.¹⁴³ The signs are everywhere, from poorly run midday meal kitchens to corrupt infrastructure contract management. The business-as-usual state is simply too enfeebled to effectively administer the public system. No amount of technological innovation or process reengineering can cover up the country’s sorely deficient state capability.

The most common causes for degeneration in state capability include politicization of bureaucratic processes, administrative indiscipline, erosion of accountability in the

discharge of official responsibilities, weakened supervision and monitoring, lack of accountability, and ubiquitous corruption. Because state capability is deeply engaged in the dynamics of political and civil society, there are no easy answers to these problems.

But the broad contours of a plan can be sketched. Administrative reforms that minimize politicization, enhance professionalism, promote transparency, and improve accountability are critical to any effort in this direction. Some important contributors to state capability failings are the unhealthy practices that corrode personnel deployment and hamstring procurement by government agencies. Fixed tenures for district heads of departments and uniform and transparent, preferably online, transfer and procurement processes can be useful steps toward ameliorating these factors.

Performance management measures, while always difficult to enact in public systems, are essential to enforce accountability among officials and their departments. The government of India's Results-Framework Document, despite its failings, is a good beginning.¹⁴⁴ It needs to be continuously iterated and allowed to permeate down to district and local governments. A more sustainable strategy for achieving this objective, though one fraught with uncertainties, may be through a phased decentralization of functions, funds, and functionaries. Teachers and doctors who are not accountable to the local community cannot be expected to deliver services to any reasonable degree of satisfaction.

Technology, in the form of e-governance applications, has the potential to increase transparency and thereby accountability and also to improve the efficiency of public service delivery. Unfortunately, while there have been numerous stand-alone, individual-driven, and locally designed e-governance applications for a range of public interventions across districts, there has been little effort to refine, standardize, and scale up these applications across the state. State governments need to identify such applications across sectors, refine the workflow, and improve their technical efficiency before making them available for implementation across districts. Of more direct and immediate concern is improving the state's capacity to monitor and supervise its functionaries and interventions. Reliable data, appropriately analyzed and rendered in a user-friendly and portable manner, can provide a powerful decision support for supervisors in this effort.

Finally, though such an assertion risks charges of political incorrectness in this age of government baiting, in light of India's minimalist state, none of these efforts can succeed until administrative resources are strengthened by adequate provision of the required personnel, logistics, and finances, especially at the cutting edge. Inadequate personnel and litigation over promotions mean that important departments such as health or education have either no or only ad hoc leadership in several districts across the country. The absence of any form of leadership is true of many departments in a typical district and invariably leaves it directionless.

The challenge of easing decision paralysis is very complex and has no straightforward answers. Executive and legislative actions, however far-reaching, must be accompanied by greater collective appreciation of the nature of the problem and maturity in dealing with such issues.

As a first step, it would help to complete the proposed amendments to section 13(1)(d)(iii) of the Prevention of Corruption Act that is before Parliament. Since the Right to Information Act, 2005, has reached its ten-year anniversary, this may be a good time to review its implementation. In particular, a bipartisan committee could be constituted to examine the possibility of exempting communications related to deliberative processes from the law.

Another committee should examine the methods and processes used by auditors and investigative agencies in light of recent trends and lay down guidelines in this regard. Auditors should preferably confine themselves to examining whether public money has been spent in accordance with prevailing rules and whether due process has been followed in decisionmaking. They should refrain from passing judgment on the merits of departmental decisions or policies that have been arrived at through due process and approved by the competent authority. Not only do auditors not have the competence to make such judgments but they are very likely to be swayed by simplistic and first-order assessments that gloss over the deeper considerations that led to such decisions. In particular, they should exercise great caution and have in place adequate administrative controls before constructing counterfactuals and making presumptive valuations.

Performance and policy audits should be part of ex post facto evaluations of decisions and should be done by independent and professionally competent third-party agencies, not by auditors. The findings of such assessments should subject individuals to disciplinary proceedings only if there is prima facie evidence of mala fide in arriving at the original decision.

Such ex post facto audits should be complemented by ex ante and concurrent financial and process audits. Any new program or policy initiative should be audited and certified before its implementation. Similarly, without adding another layer of bureaucracy, random audits should be conducted during the course of implementation to detect lapses in real time and help make appropriate corrections. Much the same should apply to the activities of vigilance officials.

Such an approach would be similar in spirit to the advance tax rulings that multinational corporations and large taxpayers seek from taxation authorities. This written interpretation of tax laws, applicable to a particular client, binds the tax authorities to their ruling and clears up taxation-related uncertainties. Such concurrent audit mechanisms

would integrate audits and vigilance into the decisionmaking process, obviating comprehensive post facto assessments. While it would undoubtedly improve the legality of decisionmaking, the trade-off would be a slower pace.

Any reform of the investigative process has to start with measures to equip investigators with professional expertise in scrutinizing financial and contracting cases. Investigators should be drawn from a broader pool and should include officials with professional expertise in these areas and lateral entrants. It is also essential that officials at both central and state government levels, especially those involved in high-stakes policymaking, be offered adequate legal protection against frivolous investigations and prosecutions. The former demands adherence to a set of permission protocols before the investigative processes can kick in.

Most important, once it is established that the decision has been made by a competent authority following due process, investigations should cease. Finally, both investigators and auditors would do well to bear in mind the fundamental principle that their findings should clearly distinguish between genuine errors and mala fide actions and be able to establish the latter.

At a time when decision paralysis has taken firm hold, it is critical to ensure that officials have certain safeguards against frivolous and malicious complaints and investigations. While section 19 of the Prevention of Corruption Act of 1988 is a safeguard against prosecution, it may be necessary to restore similar protections against flippant investigations, especially for officials involved in high-level policymaking. An official vulnerable to being investigated for any complaint is certain to postpone or escalate upward decisionmaking.

The most difficult challenge will be to initiate reforms to restrain judicial overreach and snowballing litigation. One intervention could be to gradually phase out tribunals and replace them with sectoral benches in the higher courts. The issue of judicial activism may be best addressed if it is examined by a committee of the country's most credible judges and jurists, preferably appointed by the Supreme Court. The committee should, in consultation with all stakeholders, lay down certain principles and rules that limit the range of a judge's individual discretion and draw the line between judicial activism and judicial excess, especially on the issue of entertaining public interest litigation. The Supreme Court should then require that all courts across the country follow those guidelines. A similar process could be followed and guidelines issued on the exercise of appellate authority.

Regarding the Finance Ministry's veto, it is imperative that certain guidelines that govern the exercise of jurisdiction by the Finance Ministry be formulated and strictly implemented. The guidelines should confine the ministry's jurisdiction to decisions on overall budget allocations, conformity with general costing and other financial

principles, and egregious deficiencies. The ministry should strictly refrain from investigating issues such as project structuring or costing formulas that have been decided by competent authorities within the administrative department. At best, the Finance Ministry should be allowed only to make suggestions, which the administrative department should then be free to disregard, for compelling reasons, recorded appropriately.

All these changes will have to overcome strongly held conventional wisdom and political correctness. They will need to be undertaken with great care and tact so that the delicate institutional balance that is critical to India's vibrant democracy is not upset. There are no quick-fix solutions. No extent of lateral entry is going to resolve this. Not even a change of government and a strong commitment to good governance can easily correct the incentive distortions created by these trends. It requires foresight and leadership of an exceptional nature from all institutional stakeholders. Acknowledging that the problem exists is therefore an essential first step to address this deep-rooted institutional incentives problem.

MISSION TO IMPROVE STATE CAPABILITY

1. Reform procurement policies.
2. Reform personnel deployment policies.
3. Use technology to automate the workflow in as many processes as possible.
4. Use data for decision support for public officials.
5. Increase recruitment at certain levels and in certain sectors.
6. Amend the Right to Information Act to exclude deliberative processes.
7. Conduct ex ante and concurrent financial and process audits.
8. Conduct ex post facto performance and policy audits by independent third-party agencies.
9. Develop guidelines on functional jurisdiction and processes for auditors and investigators.
10. Implement safeguards against frivolous investigations.
11. Develop Supreme Court guidelines on public interest litigation and the exercise of appellate jurisdiction by courts.
12. Clarify principles to govern the Finance Ministry's jurisdiction.

8

PROCESS PRINCIPLES

CAN INDIA REALLY BE MANAGED? The question may sound hackneyed. It is often posed at the corporate level. Corporations start small, succeed, and grow. At some point, they become too complex for the management team, however talented and competent, to manage. They stagnate and struggle to survive. They have to be broken down into smaller units, which either are given substantial empowerment and autonomy or are divested. Then the cycle can start anew.

This is an eternal truth because human cognitive limitations are the biggest binding constraint on managing complexity. As many brain researchers have discovered, the human brain largely stopped evolving after the Stone Age, and most of its instincts were honed in the days when humans were hunter-gatherers. If all of human history were inscribed on a scroll a mile long, the modern industrial age would merit no more than 4 inches of space at the end. Hence it is no surprise that the brain has difficulty discerning long-term trends, distinguishing random from systematic outcomes, and focusing on a multitude of factors at once. If this deficiency gets in the way of managing corporations, it is even more likely to get in the way of managing nations. And with respect to India, with its continental size and diversity, templates or precedents simply do not exist.

Therefore, to say that any capable politician in India is going to run up against the Peter Principle, in which an individual rises to the level of his incompetence, it is not an admission of inadequacy but an acceptance of reality. With a population of 1.2 billion people (and growing), democracy, open and subversive media, fast-growing social media use, twenty-nine states, multiple languages, multiple layers of government, and a complex legal and regulatory regime overlaid on the legacy of a predatory and control-minded colonial regime, India is simply too complex for any government to handle. Throw in information glut, the proclivity to argue endlessly, a tendency to reach for instant gratification, and much else, and India becomes overwhelming for any human. Is the message then one of despair, and not of hope? Maybe not.

Because of the magnitude of the challenges India faces, simply accepting the status quo carries a big risk. Giving up is not really an option. It is important to recognize that postindependence modern India has survived and made progress on several fronts. Challenges remain not because they have not been tackled but because the problems have kept getting bigger and more complex with the relentless rise in population. This is where India is today.

Faced with a complex situation, the first step is to break it down into manageable, bite-sized parts in every possible way. Not everything can be tackled at once. If ingenuity has enabled Indians to defy adversity in every aspect of their daily lives, the same ingenuity will guide them when conditions turn more favorable. The government does not have to solve all the problems. It can solve a few, and that would enable India to solve the rest of its problems on its own.

According to behavioral researchers, the greater challenge to implementing reforms is not building technical competence but managing human cognitive biases and contextual inhibitors. Too often leaders see only the technical and political challenges associated with reforms and overlook the formidable behavioral and contextual dimensions. They are blinkered by cognitive biases, overestimation of control, cyclical trends, the need to show results, and so on. Great fortitude and self-awareness are needed to overcome such blind spots.

Humility is called for, both from those who design and execute plans and from those who criticize. India's situation is unique in many ways. Humility makes dialogue possible, which in turn makes it easier for a diversity of solutions to emerge. With such an eclectic, diverse, and open-minded approach, India can become a positive role model for problem-solving under conditions of complexity.

This chapter outlines few processes and strategic principles that should help increase success with implementing reforms.

LET A MILLION IDEAS AND MODELS PROLIFERATE

India's continental size, large population, and vast diversity, coupled with its inherently complex nature, mean few universal strategies exist for addressing public policy challenges. Context matters, and policy and implementation designs have to be tailored accordingly.

Multiple pilots or multiple policy experiments should be conducted simultaneously, greater decisionmaking discretion during implementation is likely necessary, and one-size-fits-all approaches should be avoided. No single answer will emerge that can be applied everywhere in India—far from it. Instead, a plurality of solutions should be anticipated, encouraged, and even demanded. The bureaucracy, because it must enforce uniformity, might find a plurality of policies and approaches difficult to accept. Officials first need to become aware of this gap between their conditioning and what the situational reality demands. That is the first step toward accepting and then mastering the situation.

Lacking precedents, role models, or templates from others' experience, India's policy-makers and politicians should have the courage to craft policies based solely on what, in their best judgment, is likely to work in the Indian context or contexts, rather than on whether the policies comply with prevailing wisdom or Western practices. Having the courage to buck trends, fashions, and fads in the best interests of India is vital.

India needs to encourage new models of development across sectors in small pilot programs. Central government departments and states should be encouraged to innovate with policy design and implementation, using technology and external expertise, through public-private partnerships, collaborations with nonprofits, and so on. Innovation is critical because the public systems are acutely enfeebled: in many cases, the prevailing service delivery models and systems are irreparably damaged, and Indian policymakers may need to junk them completely and embrace new models of engagement.

In every field, the government of India should make available, in an accessible manner, various models of intervention and all actionable templates and supporting documents that states can readily adopt and implement without further tweaking. In a large sample of districts, at least a few would embrace any initiative, and at least one or two would effectively implement the intervention over a five-year period. These districts could in turn become potential champions of the intervention and models for emulation by others, and so spearhead the gradual nationwide rollout of the intervention. Several such positive deviances across a wide spectrum of interventions, coming together over a period of time, stand the best chance of achieving nationwide implementation of innovative public service delivery interventions. In more politically complex reform areas, such as banking, this form of experimentation has the potential to generate an inexorable tide in favor of reforms.

Here the evolution of China's economic growth, as chronicled by Ronald Coase and Ning Wang, is instructive.¹⁴⁵ The authors examined Chinese growth since the late 1970s and challenge the conventional wisdom that it was driven by an omnipotent Communist Party through tight central planning and the benign leadership of a group led by Deng Xiaoping.¹⁴⁶ They point instead to a decentralized and flexible model of growth that allowed experimentation with several ideas, a "million marginal revolutions." All the major initiatives now lauded as great successes—including the decollectivization of agriculture, the establishment of special economic zones, town and village enterprises, and financial market deregulation—emerged as bright spots from among the numerous variants of each that were experimented with across the country. Most of these experimental versions failed, but because they were not yoked to high-profile central programs there was space for the experimentation and risk-taking so essential for refining the implementation design of large-scale policy interventions. Deng famously exhorted his constituents to "try bold experiments, blaze new trails."¹⁴⁷

Such decentralization will inevitably cause disequilibrium and disruption for some time. But it stands a far better chance of producing new, sustainable public service delivery models than the current top-down norms- and components-based strategies.

PRACTICE COOPERATIVE AND COMPETITIVE FEDERALISM

Philosophically, the empowerment of states and local governments is the linchpin of India's future growth strategy. If India is to scale up its fragmented agricultural and industrial production, states should not only embrace policy changes made by the federal government, but they should also actively propose their own. Issues pertaining to land, labor, and education are the concurrent responsibility of the central government and the states. However, the failure or reluctance of states to adopt proposals promulgated by the central government is a major obstacle in a competitive democratic framework. Therefore, it will be better if states are encouraged to initiate changes of their own, with the central government stepping out of the way.

The central government should pursue the twin strategies of both cooperative and competitive federalism. It needs cooperative federalism to obtain support from the states for the land acquisition bill, labor codes, and similar bills that make up a large part of its parliamentary legislative agenda. It would also need their support for the effective implementation of the federal government's various flagship programs. But this would have to be complemented by triggering healthy competition among states in the achievement of various program objectives.

The federal government will have to mobilize support among states for reforms and program implementation through continuous formal and informal engagement with chief ministers. It must consciously debunk the entrenched notion of the federal government as the sole authority for formulating plans and providing funds. Frequent informal meetings with the chief ministers, preferably at the regional level, and visits to states other than for ceremonial purposes (such as ribbon cutting or inaugurations) would help.

The National Institution for Transforming India (NITI Aayog), a government-established think tank, should be entrusted with the responsibility of creating a framework for fostering competition among states. Included should be standard mechanisms, such as comparative ratings, third-party assessments, and even financial incentives. The success of the World Bank's Ease of Doing Business rankings in fostering competition among states should be emulated to develop similar indices for agriculture, education, healthcare, and law and order. An annual festival of the states culminating in awards for best performance on these indices and a few national programs can be a powerful means to encourage competitive federalism.

The multiple-round Challenge competition to select cities under the Smart City Project is a good example of cooperative and competitive federalism at work. The project cost is shared between the central government and the states. Instead of being prescriptive, the central government allowed cities to identify and prepare reports on their preferred set of technology and other interventions. The cities then competed among themselves for funding based on the strength of their respective proposals. Finally, the Ministry of Urban Development provided support with model bidding and contracting documents, technical specifications, and so on. This could form a template for sectoral and program engagement between the central government and the states.

But devolution, too, must go deeper. Substantial devolution of authority, responsibility, and resources to the states, and then from the states to corporations, to municipalities, to *gram panchayats* (village government), and to municipal and panchayat wards, is urgently needed.

Some or most of these lower administrative units may fail. They may be too overwhelmed by the sudden change in their situation to cope. They have to be open to accepting new ideas, getting new people in, and assigning new powers and responsibilities. Some may buckle under the pressure. The Peter Principle is powerful. But some will succeed, and over time, others may start to emulate them.

To sum up, federalism must be an important part of India's sustainable growth strategy. The central government has to make it its top priority. A top-down strategy is ill-suited to addressing India's reduced and fragmented production sector.

STEP BACK FROM THE RING: MANAGE BOTH STRATEGIC PRIORITIES AND HYGIENE FACTORS

Reflecting the grip of short-termism, it is often said that decisionmaking at listed firms occurs on a quarterly basis. Similarly, governments are captive to the demands of electoral cycles. In countries like India, with separate state and local government elections, electoral cycles can be extremely short. This, coupled with the intense media scrutiny, means that public policy decisions are dictated by the immediate and the quantifiable, often at the cost of the important and the structural.

For example, while building schools and bathrooms and recruiting teachers are important activities, they count for nothing unless the learning outcomes are adequate. Similarly, getting healthcare outcomes right requires going beyond making primary care centers function better or unveiling universal health insurance plans to produce more fundamental reforms of the medical education and health regulatory systems. Building public housing for the poor is important, but affordable housing depends on the presence of critical market enablers, such as a mortgage market and making low-income housing attractive to developers. Coal-block auctions are not the same as creating a liquid and broad-based market for coal. Labor market reforms are not just about changes to a few labor regulations but should also address the deeper causes of the predominance of the informal sector.

In all these cases, the immediate and the quantifiable, in addition to being important policy ingredients, are essential for the political economy. Popular narratives on each of these issues are woven around the immediate and quantifiable. Governments doubtlessly need to do the immediate and the quantifiable more effectively. But the important and the structural, which involve strategic choices, lay the foundation for more sustainable growth. The latter are as diffuse and transactional as the former are focused and logistical or decisional. Furthermore, even as the former are the business of individual sectoral departments, the latter require very close interdepartmental coordination. They also entail making difficult trade-offs, taking on strong and entrenched interests, and embracing a long and tough slog—all of which require mobilizing broad-based coalitions.

The central government should view the former as hygiene factors, to be rigorously monitored for their effective implementation. This would placate the opinion makers and political constituency, besides ensuring achievement of program outcomes. Even though the near double-digit growth would not materialize, the government would most likely win another term in office. But what would elevate the government's legacy to a different level would be its commitment and ability to plan and execute the strategic reforms.

While the immediate and quantifiable can be a large laundry list, the list of strategic reforms would have to be more carefully thought out. The ministries may be empowered

and motivated sufficiently to lend leadership to the effective implementation of their programs. But the success of the important and the structural would require political leadership at the highest level. In fact, given the nature of these reforms, tackling them would require considerable political capital and systemic bandwidth.

PURSUE SUBSTANTIVE CHANGES

Governments today are subjected to intense and relentless media scrutiny. The natural inclination, therefore, is to focus on the visible, the salient, and the quantifiable, which are often peripheral and not substantive. This is unavoidable. But it is important to ensure that the latter are not marginalized by the former, and that reforms do not morph into cosmetic exercises and terminate in pyrrhic victories.

Consider the example of the mission to move India up in the World Bank's Ease of Doing Business rankings. This mission, while unexceptionable, overlooks the serious limitations of the rankings themselves, which are confined to two cities and are a perception (among professionals) and not an actual enterprise survey. The danger of a narrow focus is the risk of missing the forest for the trees. Instead, if the underlying objective—namely, to improve the business environment—is absorbed, a more appropriate strategy might be to construct a more robust and credible metric of the regulatory environment and rigorously monitor progress. A broader focus would be a substantive change and would improve India's rankings on the more high-profile global indices. But realizing such transformation on the field will undoubtedly take time.

Going forward, this focus on the substantive issues should apply equally to the success of other missions concerning financial inclusion, sanitation, skills building, and start-ups. It is relevant to other structural reforms, such as improving the health of power distribution companies or allotting public resources. Each of these missions requires persistent, long-duration effort, applied to multiple dimensions simultaneously, to move the needle. Therefore, the temptation to focus on crude targets and secondary parameters that are quickly achieved can be immense.

AVOID GROWTH THROUGH FADS AND BUBBLES

The secular stagnation hypothesis in developed economies implies, among other things, that high growth rates can be achieved only through inflationary bubbles. Much the same thinking applies to India, though the underlying causes are different.

If India is to sustain an 8–10 percent annual output growth, its gross fixed capital formation must grow three to four times as fast at 14–16 percent per annum. Because of India's narrow capital base, limited supply-side capacity, and weak implementation and contract management capability, such growth can come about only through rounds of aggressive bidding, reckless lending, and irresponsible contracting, and even then only for short periods of time. In essence, that accounted for India's growth from 2003 to 2008. In 2016, however, the stressed corporate and bank balance sheets make growth based on such behaviors an even longer shot.

That has not stopped the country from trying. For example, a bubble may be inflating in solar power. A risk exists that massive capacity may be opened to bidding without sufficient evacuation and grid management (balancing solar with conventional power, the latter to be made operational or diverted, based on demand) capabilities. Even with the best possible implementation, putting in place proper evacuation and grid management techniques would take many years. The fissures should start showing up as these issues start affecting more than a few gigawatts of solar capacity addition. More disturbingly, reckless bidding and disingenuous financial engineering are never far away from such trends. The ongoing existential crisis facing SunEdison, a poster child for clean energy and a pioneer of financial engineering through publicly traded yieldcos, is just one example.¹⁴⁸ In November 2015, the firm shook the Indian solar markets by bidding below INRs 5, at INRs 4.63, for a solar park in Andhra Pradesh. Developers, banks, and taxpayers could be left holding the bag for the irrational exuberance.

Just as with improvements in higher education, any rapid expansion runs the strong risk of coming at the expense of quality, and its longer-term costs would be far higher than its immediate benefits.

The then RBI governor summarized the risks well in his C. D. Deshmukh lecture, delivered in January 2016: "It is possible to grow too fast with substantial stimulus, as we did in 2010 and 2011, only to pay the price in higher inflation, higher deficits, and lower growth in 2013 and 2014."¹⁴⁹

HUNKER DOWN

With deficits in consumer spending power, firm capacity, retail and other transactional chains, the breadth and depth of credit markets, skilled labor supply, and infrastructure capacity, India's economy is simply not broad-based enough to sustain high growth rates for long durations. The weak state capacity and various land, capital, and labor market distortions only exacerbate the problem.

India therefore needs to build a more broad-based and deeper economic and social foundation to be able to grow sustainably at high rates. Unfortunately, this cannot be achieved through shortcuts. It will require persistent efforts in multiple dimensions over an extended period of time.

A more prudent strategy, then, may be, as Jahangir Aziz says, to “hunker down” and brace for 5–7 percent medium-term growth rates while simultaneously expediting important long-term reforms in health, education, labor, the credit markets, taxation, and, most important, improving state capability.¹⁵⁰ Throughout this process, infrastructure investment must be kept up so that the stock builds up and the deficiency shrinks. If all goes well, within four to six years India can be where China was in 2001 and can then take off in a more sustainable manner.

Policymakers and political leaders may need to acknowledge this reality, while also pursuing the strategy of talking up the markets. The latter is necessary not just to win elections but also to reassure the financial market participants. But the former, acknowledging the reality and dealing with it, is where substantive action should take place.

Once the deficiencies are recognized and action is initiated, it is certainly possible that the dynamics generated by them and the several strengths of the Indian economy would interact to expedite the transition to a higher growth trajectory. A better future is founded on realism; otherwise it is simply building castles in the air.

Raghuram Rajan had this to say on the distinction between self-belief and hype:

No country succeeds without believing in itself—I do not mean the unwarranted belief that we are intrinsically better than everyone else but the confidence that given our population, our demographics, our massive infrastructure investment opportunities, and the wide range of capabilities in our people, the arc of history is turning towards us.¹⁵¹

SCALE BACK EXPECTATIONS: PROMISE LESS, DELIVER MORE

In hunkering down, one scales back expectations. Apart from many other changes, the 2014 national elections ushered in a revolution of rising expectations. Political pundits framed the time as no less than a bright new dawn after a long night of gloom and despair. The new government announced an ambitious set of mission-mode programs and exhibited a remarkable commitment to stamping out corruption and restoring probity in governance. These promises were doubtless necessary. But they also amplified

the expectations and fueled the belief that dramatic overnight transformations were around the corner. Because of the complex nature of the challenges that were to be addressed through these programs, however, it was impossible to produce meaningful results in a short time. Disappointments were bound to set in.

Overpromising assumes even greater significance in an age in which the media play an important role not only in shaping the public policy agenda (and its reception) but also in setting it. Communicating important initiatives, therefore, is as much about being clear on the details as it is about managing the expectations surrounding the initiatives. Unfortunately, managing expectations is often taken to mean ginning up expectations.

It is a mantra of management gurus that businesses should underpromise and overdeliver.¹⁵² This aphorism applies equally well to governments, whose survival is critically dependent on meeting, or even exceeding, public expectations.

It should be the government's strategy to shape expectations around important behavioral changes (as with the Swachh Bharat Mission) and paradigm shifts (focus on the state government's role, learning outcomes, and so forth). But communicating about such issues most often is reduced to discussing specific actions and what targets have been achieved. This approach takes away from the more critical dimensions of the issue: the difficult nature of the task, the constraints that limit the anticipated changes, the role of each stakeholder in the process, the need for sustained effort and sufficient time. The government's communications strategy should be to frame the agenda for each of its initiatives by incorporating all these dimensions.

In democracies in general, a culture of underpromising and overdelivering should replace the culture of tall promises and outcome shortfalls. The economist Alan Blinder advocates that approach for two reasons:

One is that progress will probably come slowly. Economic problems rarely disappear overnight. They dissipate slowly, like a dense fog. For a long while, the people will see little or no progress. The public needs to be conditioned to expect that, and not to look for quick fixes. Otherwise, their naturally short attention spans will dominate public discourse. The other is that there is no political punishment for doing better than you indicated, but lots for doing worse.¹⁵³

DON'T OBSESS OVER CHINA'S GDP SIZE

It is no exaggeration to suggest that India's high-growth quest is largely motivated by China's quarter century of transformational growth. That is a good thing. China's growth showed India that big size does not preclude fast economic growth. For the

aspirational middle class, the elites, and political leaders, India's northern neighbor is a touchstone for India and its growth something to emulate. Its immediacy, both in time and in geography, and its staggering scale have captured the Indian imagination.

But there are compelling reasons to argue that China's path to growth may not be the appropriate model for India. First, unlike China, India does not have the requisite human, physical, and financial capital or state capability needed to sustain such high growth rates over long durations. Second, the proximate domestic driver of Chinese growth was its extraordinarily high public investments, in the range of 45–50 percent of GDP, which India cannot come close to matching. Third, the external counterpart, export-led growth, was facilitated by favorable global geopolitical and economic structures, which may have turned against continuing Asian growth. Finally, as recent events have shown, such breakneck growth is inevitably distortionary and engenders profoundly destabilizing risks with the potential for long-term damage.

Doubtless, there are certain important lessons to be drawn from China's experience—none more important than its heterodox and iterative strategy of “crossing the river by feeling the stones,” to use Deng Xiaoping's phrase. India needs to do the same, especially with deregulation in various sectors, trade liberalization, and a greater opening up of the financial markets. India also needs to absorb the lessons from China's investments in human capital, its focus on urbanization, its investments in transportation infrastructure, and the like. And finally, India needs to embrace the Chinese strategy of letting a “million marginal revolutions” bloom.

BREAK DOWN SILOS

In an interview with *Time* magazine's editors, Prime Minister Narendra Modi offered the following observation about the central government in New Delhi:

Similarly, it was my experience after I entered the Federal government that different departments of the Government of India tend to work in silos. Each department seems to work as a Government in itself... My effort has been to ensure that these silos get broken down, that there is a collective thought process which is brought about in the Federal government. And I think we have managed to achieve that in a short period of time wherein everybody thinks together as a collective, everybody works together. And also it has invigorated the administrative system of the Federal government which looks at a problem in a collective manner rather than as individual silos.¹⁵⁴

The prime minister could do no better than repeat this every time he addresses officials. While large organizations and their bureaucracies generally work in silos, this trend

is excruciating when found in the government of India, not just across ministries but within departments, too. Officials elevate turf interests over public interest or departmental objectives.

The power sector is but one example of organizational silos leading to loss of efficiency. Transmission capacity has failed to keep pace with generation, distribution-side reforms have failed to keep up with all other changes, and the expansion of renewables has failed to keep up with grid management investments. It is true that some of these problems are beyond the control of the Ministry of Power and would occur even with dynamic leadership, but the criticism that there is no agency with a comprehensive view of the sector has merit. Having a separate Ministry of New and Renewable Energy highlights the problem, for its success is critically dependent on the Ministry of Power developing transmission and grid management capacities and retrofitting existing thermal plants.

Metro rail projects are another example of silos at work. While such projects are universally viewed as critical instruments to guide the density and form of urban growth, in India they are seen predominantly as trophy engineering projects. Even commonplace policy levers such as higher density along rail corridors are cast aside in the eagerness to get such projects sanctioned.

One immediate action agenda would be to consolidate all the departments in each ministry and have them function as a single entity. This move should be accompanied by the merging of certain ministries. Apart from breaking down silos, consolidation would free up considerable scarce human resources, which could then be more optimally deployed, with duplication of activities eliminated.¹⁵⁵

Breaking down silos is difficult even under the best of circumstances. As Gillian Tett has recently documented, even more cohesive and smaller organizations, such as Sony or the Bank of England, have failed to do so.¹⁵⁶ But it is important for the leadership of India's ministerial departments to be made constantly aware of blind spots that can distort their actions and distract from their pursuit of larger objectives.

DEVELOP LEADERSHIP

The role of leadership in achieving economic, social, and political transformations is usually glossed over, not because it is unimportant but because it is too important to be discussed by economists. Technical solutions to problems can be found by hiring technocrats and other experts, but implementing solutions and getting them to work require leadership.¹⁵⁷

In October 2012, at the height of gloom and despondency over India amid growth challenges, corruption charges, and the collapse of governance, Shankkar Aiyar, author of *Accidental India*, wrote the following about leadership: “Leadership is not about pickled intellect. It is driven by imagination, a willingness to reflect, ability to inspire, to listen and to have the courage of conviction to embrace risk.”¹⁵⁸ That is a useful list of the attributes of successful leaders. We discuss some of them in this section.

EMBRACING RISK

In the main, leadership is about making decisions in the pursuit of transformation of the society and the country. Decisions involve trade-offs and making choices. Leadership is a popularity contest, but with a twist. It is about choosing between appeasing the current generation versus courting the goodwill of future generations. Successful leaders bet their future on the uncertain goodwill of the unborn. The time inconsistency is not easy to handle. It is hard to resist giving in to the temptation of dealing with the here and now instead of waiting for the uncertain rewards of the future.

Resisting that temptation requires awareness and an acceptance of delayed gratification. Resistance to change is common, but leadership is usually about effecting change. Leaders can break down resistance with appeasement or with empowerment, combined with accountability. Appeasement buys peace and cooperation in the short term but at the cost of potential long-term damage.

At the same time, enforcing accountability is not cost free. In the short term, adverse economic consequences are possible, resulting in personal unpopularity. But visionary leaders trade off short-term popularity for long-term national interest. When decisions—choices and trade-offs—are made with the consistent application of values and ethical norms, the credibility of the decisions and that of the leadership will be enhanced. The public will understand and accept decisions better. This takes time, often longer than an electoral cycle. Hence risks need to be taken. But conviction and communication could make such risk taking electorally rewarding, too.

KEEPING WISE AND FEARLESS CRITICS AROUND

In India, the Tamil sage Thiruvalluvar dedicated one chapter (couplets 441 to 450) to the idea of surrounding oneself with wise men who would keep kings grounded and ensure they ruled the kingdom well, in the interests of all the subjects.

தம்மிற் பெரியார் தமரா ஓழுகுதல்
வன்மையு ளெல்லாந் தலை. (Thirukkural 444)

A king wise enough to have men of greater wisdom than he to advise him shall be a powerful ruler.

இடிக்குந் துணையாரை யாள்வாரை யாரே
கெடுக்குந் தகைமை யவர். (Thirukkural 447)

Where the king's counselor possesses the courage to reprove him when necessary, nothing on earth can bring about such a king's ruin.

இடிப்பாரை இல்லாத ஏமரா மன்னன்
கெடுப்பார் இலானும் கெடும். (Thirukkural 448)

Without courageous counselors to point out his faults and so protect him, a king will ruin himself, even without foes.

பல்லார் பகைகொளலிற் பத்தடுத்த தீமைத்தே
நல்லார் தொடர் கைவிடல். (Thirukkural 450)

It is surely foolish to incur the enmity of many foes, but ten times worse to lose righteous friends.¹⁵⁹

These four couplets (kurals) capture the importance of leaders surrounding themselves with friendly, fearless, and well-meaning advisers. It is useful advice for leaders at all levels. India has been a feudal society for most of its modern history. Most scholars, pundits, and poets depended on the king's munificence to sustain their livelihood and their vocations. Hence a certain amount of sycophancy—deserved or undeserved lavish praise—is deeply ingrained in Indian history and culture. At the same time, the culture has provided for a Tenali Rama to advise and counsel Krishna Deva Raya and for a Birbal to advise Akbar.

COMMUNICATING

In the Indian context, in light of the immense challenges of steering the Indian economy to prosperity in what are likely to be inhospitable conditions, the role of leadership becomes that much more critical. Indeed, it can be argued that strong, effective,

competent, and enlightened leadership may or may not have been necessary for today's developed economies because other factors were vastly more favorable to them. For India, it is the other way around. Since many of the favorable factors have vanished, leadership has become critical to the restoration of economic growth and the achievement of economic prosperity.

In his book *After the Music Stopped*, Alan Blinder notes that the Obama administration was guilty of not trumpeting four messages from the moment Obama was elected president in 2008:

1. Here is how we got into this mess.
2. This is what we propose to do to fix the problems.
3. We have a coherent plan, and here is why it makes sense.
4. This is going to take time, so please bear with us.¹⁶⁰

That is a good action and communication template for Indian leaders, too.

Communication makes the difference between persuasion and coercion. In the age-old fable, it is the sun gently bearing down that removes the cloth from the itinerant traveler and not the fierce wind that threatens to snatch the cloth from him. The sun succeeded because it made the traveler feel it was in his interest to let go of the shawl, whereas the wind tried to impose its will on him. Success comes to those leaders who make others feel they are in command of their decisions.

CONCLUSION

CAN INDIA GROW? In 2004, development economist Dani Rodrik and Arvind Subramanian, India's current chief economic adviser, collaborated on a paper showing why a 7 percent real GDP growth rate in India was likely. They believed that India had the potential to do better. One of the premises of their optimistic conclusions was that a reduction in India's demographic dependency ratio would lift the savings rate from around 25 percent to 39 percent—the demographic dividend. They felt that change alone would guarantee a growth rate of around 5.4 percent. Even with no changes in educational attainment or labor force participation rates, labor was supposed to add an additional 1.3 percent.¹⁶¹

For a while, between 2004 and 2008, it appeared that India was on track to do better than what Rodrik and Subramanian had suggested. Despite an improving literacy rate, however, the employable population remains too low. Labor force participation has not improved. The savings rate increased up to nearly 37 percent but is now at 30 percent. The productivity of capital and labor is not measurable but in any case is too low.

India's economic potential, in theory, is quite high. In practice, it has always fallen short of expectations. The first step on the long road to redemption is to accept that a higher growth rate for India and its rise to preeminence (economic and otherwise) in the twenty-first century are not preordained. Optimism is essential to pace and scale up

effort. However, acceptance of the problem comes before optimism. Second, developing a solution to solve the problem and securing the consent for the plan requires a realistic assessment first. The third step is to realize the need to allow sufficient time to pass for deeds to produce fruit. Premature declarations of victory betray an insecure and diffident mental inclination.

Before the finalization of the Twelfth Five Year Plan, the erstwhile Planning Commission of India conducted a scenario exercise in 2012.¹⁶² It envisaged three alternative scenarios emerging in India in the ensuing ten years, which the commission dubbed “falling apart,” “muddling along,” and “the flotilla advances.” The people and institutions whom the commission surveyed—civil society organizations, as well as experts in economic and social development and international relations and environmental issues—at the time felt that India was muddling along. For the most part since independence, India has operated on the border between falling apart and muddling along. As for the flotilla advancing, it had only glimpses, all too brief.

However, it is dangerous to be satisfied with muddling along. It is not a badge of honor to be worn with pride. The danger of continuing to muddle along is that society becomes increasingly vulnerable to external attacks and internal shocks. The risk of falling apart rises. The Planning Commission correctly noted that the perception that the story of India was falling apart could induce people to take unilateral actions to serve their own interests, making cohesion more difficult.

The report explained that “[India] is not a naval fleet, with all captains enjoined to obey the admiral’s orders, but a flotilla of ships under the leadership of a flagship headed by a commodore who is elected to be first among equals.”¹⁶³ In the best-case scenario—in which the flotilla advances—the commission envisaged “a concerted effort to adopt decentralized governance and solutions, along with a focus on opportunity-based inclusion produces more sustainable strength—both socially and economically for the country.”¹⁶⁴

This has sought to make the flotilla advance. Economic growth and social progress are best achieved by stripping away illusions and delusions and starting with a stark understanding of the challenges that confront India. Once that understanding is in place, the necessary policy and behavioral changes can and will follow with relatively more ease. Then prosperity and a life of dignity will become possible for the vast majority of Indians within a generation.

NOTES

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