The Poverty Miracle

Three decades of market-based reforms have dramatically reduced poverty and expanded India's middle class. But the business climate remains uneven.

By Matthew Rees

What has been the most consequential change to the global economy during the past thirty years? While there are many potential candidates—such as the collapse of Communism and the growth of the capital markets—history will show that one change outflanks them all: poverty reduction. Approximately 1.5 billion people have escaped extreme poverty since 1990. The combination of the speed with which this occurred, and the number of people who benefited, is without precedent in human history.

But how did it happen?

It's standard practice for development economists to say that every country has a unique set of conditions, and thus policies that reduce poverty in one country won't necessarily do the same in another country. This idea overlooks that while the most successful anti-poverty policies have differed, the principles underpinning those policies have been remarkably similar: reduced state intervention in the economy and a greater reliance on market forces.

Consider the findings of the independent Commission on Growth and Development, chaired by Nobel laureate economist Michael Spence. In 2008, it identified five factors that had contributed to strong and prolonged

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growth in seventeen developing countries. Three of the factors were relatively agnostic on the scope of government: macroeconomic stability, high rates of saving and investment, and good governance. But the other two factors were decidedly not agnostic. Critical to long-term economic expansion in these countries, said the Commission, was that they "fully exploited the world economy" and "let markets allocate resources."

China was one of countries studied by Spence's commission, and the country's achievements have been breathtaking, with approximately 700 million people moving into the middle class since the country's economic reforms (many of them market-based) started in 1979. But if China was the valedictorian in the school of poverty reduction, India has been the salutatorian, with hundreds of millions of people escaping a life of penury over the past three decades. And the country's experience reinforces the central role played by markets in enabling people to realize higher living standards.

One person with an acute understanding of how economic reform leads to higher living standards is Chandrababu Naidu, who served as chief minister of Andhra Pradesh, a state in south-central India, from 1995–2004. Naidu was the architect of reforms and initiatives that transformed Hyderabad (the state's biggest city at the time) from a somewhat sleepy municipality into a dynamic metropolis that has attracted large investments from many of the world's most respected technology companies. During a November 2019 interview with me, in the city of Amaravati, Naidu was crystal clear about what's needed to help the poor: "Without private investment and without job creation, you cannot eradicate poverty."

Hyderabad (the subject of a future *TIE* article) is an emblem of India's economic progress over the past thirty years—a period during which India's economic growth rate dramatically increased relative to the decades following independence, resulting in a six-fold rise in incomes. Fundamental to that expansion, says Columbia University economist Arvind Panagariya, has been "removing the heavy hand of government and relying much more on the invisible hand of the market."

Valuable lessons can be learned from India's decades-long experience as it moved from government domination of the economy to market-based reforms that unleashed prosperity. To fully appreciate what India has achieved, it helps to understand the country's economic journey.

Toxic Economics

India's first post-independence prime minister, Jawaharlal Nehru, was emblematic of a political class enamored with the Soviet Union and scarred by the colonial experience. The policies that came out of this toxic environment were previewed by Nehru in a book he wrote the year before India achieved freedom. The goal, he said, was "the attainment, as far as possible, of national self-sufficiency." Closing the borders to trade was the one (admittedly blunt) way to ensure that India's experience with colonialism would not be repeated. And limiting trade advanced Nehru's vision of the world, which he branded "scientific socialism." He cautioned that he and his colleagues were not opposed to international trade, but "we were anxious to avoid being drawn into the whirlpool of economic imperialism."

—M. Rees

Lord Mountbatten *swears in* **Jawaharlal Nehru** *as the first Prime Minister of free India on August 15, 1947.*

INDIA IN THE PAST

The land mass that is today's India was once a global economic colossus, accounting for nearly 25 percent of global economic output in the late 1600s. But in the centuries that followed, many other countries grew wealthier, while India became poorer. Colonial misrule by the British was fundamental to the economic decline—per capita income rose less than 20 percent from 1900 to 1947—and the experience of opening the country to the East India Company cast business and globalization in a harsh light. "India's most significant experience with entrepreneurship was a country captured by a business" is the apt summation by Infosys co-founder Nandan Nilekani. By the time the last British vessel set sail from Mumbai in 1947, India's share of the global economy had fallen to just 4 percent.

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The British had imposed import and export controls starting in 1940, and while there was some liberalization after independence, the controls were resurrected following extreme foreign exchange volatility in 1956–1957 (triggered in part by the Suez crisis). For much of the next thirty-plus years, India's policymakers pursued policies that were a central planner's dream. Imports were severely restricted. Several major industries—from banking to mining—were nationalized. Companies with more than 300 employees needed state approval before making layoffs (a threshold later lowered to 100 employees). Foreign direct investment was all but prohibited, and companies that did succeed in navigating the complex regulatory terrain were required to relinquish 60 percent of their local equity to Indian shareholders. Individual income taxes, while only paid by a small segment of the population, could be as high as 97.5 percent.

One particularly pernicious law intended to limit the concentration of economic power, the Monopolies and Restrictive Trade Practices Act of 1969, required any company with assets exceeding 20 million rupees (about US$2.7 million at the time) to seek government

The slow growth caused by wrongheaded policies was devastating.

P.V. Narasimha Rao, *India's prime minister 1991–1996.*

Rao's finance minister, **Manmohan Singh,** *who later served as prime minister 2004–2014.*

Singh's Statement of Policy

Elected prime minister of India in June 1991, P.V. Narasimha Rao chose to use the balance of payments crisis in the summer of 1991 as an opportunity to reform and repeal thousands of regulations that had been stifling economic opportunity.

Rao's finance minister, Manmohan Singh, issued a "Statement of Policy" that repealed much of the "license raj" regime that had been expanding since 1947.

Improvement came rapidly. In the span of just two years, the federal budget deficit shrank, foreign exchange reserves increased twenty-fold, and the inflation rate was cut in half. The speed of the progress helps explain what didn't happen: a repeal of the reforms.

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The iconic Hindustan Ambassador, the original made-in-India car.

permission to expand production or establish new capacity.

The catch-all term for the arrangement was the "license raj." It vested great power in the civil servants who administered it (and enriched those who took bribes in the process), but strangled the economy. The "license raj" also forced companies to devote huge resources to simply trying to navigate all the different rules and regulations when they could have been focused on all the different things that go into making a company successful.

Predictably, the economy suffered. As two eminent Indian-American economists, Jagdish Bhagwati and Padma Desai, wrote in 1970, "The Indian experience with industrialization in the two decades since Independence in 1947 has evoked reactions which appear to have regressed from great optimism to exaggerated despair."

Indian growth rates puttered along at just 3.5 percent from 1950–1980, as the country refused to integrate with the expanding global economy and placed unreasonable regulatory demands on blue-chip companies. Those demands led IBM to withdraw from the country altogether in 1978, depriving India of high-paying jobs as well as the knowledge dispersion that drives economies to new heights. Barriers around the automobile sector meant production was mostly limited to the Ambassador brand—a car that Indian diplomat and author Shashi Tharoor describes as having "a steering mechanism with the subtlety of an oxcart, guzzled gas like a sheik, and shook like a guzzler, and yet enjoyed waiting lists of several years at all the dealers."

The slow growth caused by wrongheaded policies was devastating. It "proved fatal to the objective of poverty reduction," write Panagariya, Pinaki Chakraborty, and M. Govinda Rao, the authors of *State Level Reforms, Growth, and Development in Indian States,* an excellent analysis of India's economy. The share of the population living in poverty constantly hovered around 45 percent in the four decades after independence, consigning hundreds of millions of people throughout the country to extremely low living standards. By the end of the 1970s, 90 percent of the country's residents had an annual per capita income of less than $150.

Many of India's best and brightest effectively gave up on their country, moving to the United States, the United Kingdom, and other relatively open economic environments, where they often prospered. Tharoor captured the feeling of many Indians—abroad and at home—when he wrote that, "For most of the five decades since independence, India has pursued an economic policy of subsidizing unproductivity, regulating stagnation, and distributing poverty. We called this socialism."

Successive governments instituted a variety of welfare schemes designed to help the poor. These schemes largely failed, as the economy was not creating enough economic opportunity. The failure was also a byproduct of something acknowledged by Prime Minister Rajiv Gandhi, whose Congress Party touted its "pro-poor" orientation. He conceded in 1985 that only about 15 percent of the money directed at the poor made it to them.

Anemic economic growth, coupled with persistent high poverty rates, created an appetite for modest economic reforms in the 1980s. Some taxes were reduced, some import regulations were scaled back, and some investment licenses were curtailed. While there were important reforms to the country's regulations governing electronics (now better known as "information technology"), which will

For all of India's progress, more than 200 million of its people still live in poverty and the business climate remains uneven.

be covered in more detail later, the changes preserved the state's overarching role in the economy.

But ill-advised fiscal policy in the late 1980s led to higher deficits. Tharoor wrote that

> *For most of its existence, the government of independent India was proudly self-sufficient, independent of the dominance of world capital, rhetorically devoted to using the state to better the lot of the poor, and politically disinclined to debate the self-evident virtue of these propositions. By mid-1991, it was also virtually broke.*

"Virtually broke" is right. Reckless government spending, coupled with a rise in oil prices brought on by the Gulf War, created a balance of payments crisis in the summer of 1991. To escape the crisis, the country needed a $2.2 billion loan from the International Monetary Fund. In exchange for the funds, the government had to commit to economic reforms and pledge more than 50 tons of the country's gold reserves as collateral. News of the gold being airlifted out of the country on British Airways flights to the capital city of the former colonial overlord only added insult to injury. The *Economic Times,* an Indian newspaper, later characterized it as "a national embarrassment."

The crisis also coincided with a new government taking power, and the new prime minister, P.V. Narasimha Rao, chose to use the crisis as an opportunity to reform and repeal thousands of regulations that had been stifling economic opportunity. He immediately marked a sharp break with the policies of his predecessors. The new government, he said, was "committed to removing the cobwebs that come in the way of rapid industrialization," would "welcome foreign direct investment," and would take full advantage of the "opportunities offered by the evolving global economy."

Rao's finance minister, Manmohan Singh, issued a "Statement of Policy" that repealed much of the "license raj" regime that had been expanding since 1947. The statement's key passage read, "Industrial licensing

Colonial misrule by the British was fundamental to the economic decline.

Rao, who pushed these reforms as prime minister, later said, "The full freedom to dream the way you like came only in 1991, not 1947."

will henceforth be abolished for all industries, except those specified, irrespective of levels of investment." (Just five industries ended up being subject to licensing.) The reforms included the following:

- Import duties, which were as high as 355 percent, and averaged 113 percent, were reduced. The top tariff immediately came down to 150 percent, and then dropped even more. By 2007–2008, it was down to 10 percent.
- All import licensing—a hallmark of India's economy—was scrapped.
- The limits on foreign direct investment were dramatically liberalized.
- The limit on foreign equity investment in Indian companies rose to 51 percent (and was later abolished altogether) with "automatic entry" permitted in 34 industries.
- Taxes for both corporations and for individuals were sharply reduced (a nearly 50 reduction for corporations over five years).
- Wealth taxes on shares were abolished.
- Government monopolies in numerous industries such as banking, airlines, electric power, petroleum, and cellular phones were abolished.
- The highly interventionist stock market regulator—the Controller of Capital Issues—was replaced with the autonomous Securities and Exchange Board of India, and shares of publicly traded companies could be freely priced.
- The rupee was devalued and the exchange rate gradually shifted to being determined by the market.

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Rao, who pushed these reforms as prime minister, later said, "The full freedom to dream the way you like came only in 1991, not 1947." Business executive and author Gurcharan Das, who lived through the reform period, has echoed the sentiment: "We felt as though our second independence had arrived: we were going to be free from a rapacious and domineering state."

Improvement came rapidly. In the span of just two years, the federal budget deficit shrank, foreign exchange reserves increased twenty-fold, and the inflation rate was cut in half. The speed of the progress helps explain what didn't happen: a repeal of the reforms. Decades of socialist policies had largely failed the country. There was no appetite for resurrecting them by leaders who followed Rao. Indeed, subsequent governments implemented more reforms. These included deregulating interest rates, continuing to reduce import duties, and establishing "special economic zones" where duty-free exports and imports faced reduced regulatory barriers.

ECONOMIC GROWTH-POVERTY REDUCTION NEXUS

Curtailing government intervention had transformative effects on India's economy. Unleashed from oppressive regulation, there was an explosion of pent-up demand. From 1992–1993 to 1999–2000, the economy grew at an annual average rate of 6.3 percent. From 2003–2004 to 2010–2011, the growth rate was 8.5 percent. As noted above, from 1950–1980 the economic growth rate averaged just 3.5 percent (and 4.6 percent from 1981–1988). This sluggishness had been widely ridiculed as "the Hindu rate of growth."

The higher growth unlocked economic opportunity. As jobs were created, millions of Indians migrated from farms to urban areas. The share of the population employed in agriculture steadily declined from 70 percent in 1991 down to 43 percent today. Per-capita income rose from $350 in 1991 to $2,020 in 2018, and living standards improved. Life expectancy rose from 58 years in 1991 to 69 years in 2017.

Several reforms had a significant impact on helping people to escape poverty and enter the middle class, but one phenomenon underpins the overwhelming share of anti-poverty progress: economic growth. As the country's former prime minister, Manmohan Singh, has said, "The best cure for poverty is [economic] growth."

Echoing Singh—who as finance minister was a chief architect of the 1991 reforms—was a comprehensive World Bank report on the Indian economy published in 1997. The authors reached the following conclusion:

> *The poor have gained from economic growth, and lost from contraction and inflation. Results from a World Bank research project using household surveys spanning forty years demonstrates that overall growth accounted for the lion's share of poverty reduction: 80 percent of the decline in the percentage of households below the poverty line from 1951 to 1970 and almost 100 percent since 1970 … [Economic] growth-enhancing public policies are the* sine qua non *of lasting progress in reducing poverty.*

The report also noted that the average annual reduction in poverty prior to the 1991 reforms was 0.44 percentage points. After the reforms began, the average annual poverty reduction was 1.36 percentage points. And a study published in 2012 showed the importance of economic growth: for every one percent increase in per capita income, there was a 0.42 percent reduction in poverty.

This data underscores a fundamental (if sometimes overlooked) point: The poor benefit from an expansion of economic opportunity, as there are more jobs and typically better-paying jobs. But another benefit is that with more tax revenue, governments can invest more in areas that are likely to benefit the poor, such as health care and education. And from 1993–1994 to 2011–2012, there was a nearly tenfold increase in spending on social services across India. India's economic growth "has helped trigger a virtuous cycle whereby high growth permits higher expenditures on economic and social infrastructure that in turn help promote growth," write Panagariya, Chakraborty, and Rao.

Many of India's best and brightest effectively gave up on their country, moving to the United States, the United Kingdom, and other relatively open economic environments, where they often prospered.

This conclusion is buttressed by Abhijit Banerjee and Esther Duflo, winners of the 2019 Nobel Prize in economics. They recently took note of the remarkable global progress over the past few decades—doubling of average incomes of the bottom 50 percent of earners, more than one billion people escaping extreme poverty, a 50 percent reduction in global maternal mortality and infant mortality. "A great deal of the credit for these gains," they wrote, "can go to economic growth. In addition to increasing people's income, steadily expanding GDPs have allowed governments (and others) to spend more on schools, hospitals, medicines, and income transfers to the poor."

While some Indian states achieved more progress than others in the years after the reforms were implemented, what's striking is that all seventeen of India's largest states saw poverty decline from 1993–1994 to 2009–2010. This growth also encompassed the socially disadvantaged. From 1983–1984 to 2004–2005, poverty fell 20 percentage points among scheduled castes and 18 percentage points among scheduled tribes.

That dry data translated to millions of Indians no longer leading lives of subsistence. They had money to spend—on housing, health, food, and education for their children. And as incomes rose, so did the literacy rate—from less in 44 percent in 1980 to more than 74 percent in 2011. During roughly the same period, the infant mortality rate also fell more than 50 percent.

Determining precisely how many people escaped poverty depends on a range of factors, such as when the clock starts and stops. Panagariya, who has done pioneering analysis of India's economy, points out that 44.5 percent of the population lived in poverty in 1983. By 2004, that figure had fallen to 27.5 percent—leading him to estimate that nearly 188 million people had lifted themselves out of poverty during this period. By 2011–2012, the share of the population in poverty had fallen to 22 percent. As for total poverty reduction from 1983 to 2011–2012, Panagariya pegs it at 371 million people.

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As India has continued to feel the effects of a more deregulated—and more capitalist—economy, poverty reduction has continued. In the period from 2005–2006 to 2015–2016, 271 million Indians escaped poverty. That's according to the Multidimensional Poverty Index, a measure developed by the Oxford Poverty & Human Development Initiative with the United Nations Development Program. The fastest reductions in poverty came in the poorest regions, among the poorest groups, and among children. Jharkhand, one of India's poorest states, saw the share of the population living in poverty fall from three-quarters to less than half—a stunning ten-year achievement.

Living standards were calculated using several different measurements. They included income, but also nutrition, child mortality, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing, and assets. OPHI identified income gains as making the biggest contribution to poverty reduction, closely followed by having more access to cooking fuel, better sanitation, improved nutrition, housing, and electricity. Economic growth clearly drives income gains, but also all the other factors mentioned here. Governments have been able to devote more resources to them as a result of having more tax revenue—just as Banerjee and Duflo described earlier.

GLOBALIZATION POWERING GROWTH AND REDUCING POVERTY

Vijay Kelkar is a Ph.D. economist who studied at the University of California-Berkeley before starting a career in India's federal government that spanned from 1977 to 2004, with occasional detours to the United Nations and the International Monetary Fund. Today, reflecting on India's post-independence economic history, he feels strongly about what delivered the biggest gains to the country's poor: "They benefited much more from a rapid opening of the economy to global competition than they did from traditional anti-poverty programs. India's deeper integration with the global economy unleashed the creation of new jobs and higher-paying jobs—which meant more opportunities for the poor to find employment that would lift them out of poverty."

The Tech Reforms

Information technology is another one of India's highly dynamic industries, and its most globally competitive, led by iconic companies such as Infosys and Wipro. IT accounted for nearly 8 percent of the country's GDP as of 2017, generating revenues of $180 billion last year. That was up from just $150 million in 1990–1991.

Throughout the 1980s, the sector's growth was severely handicapped by the regulations that permeated the country. J.A. Chowdary, a leading Hyderabad-based Indian IT official for decades, described the environment in the 1980s:

> *For somebody who wanted to import a computer, they needed to get an import license, which could take six months, and sometimes up to a year. And if the license was approved, the import duty could exceed 300 percent. A lot of companies wanted to come set up software-related activities in India. But because of the licensing requirements and the bureaucracy, they never succeeded in doing so.*

The experience of Infosys, India's leading IT company, is instructive. It was founded in 1981, but the government did not recognize "software" as a business, which meant the company could not get bank loans. One of the company's founders, Narayana Murthy, has described the challenging conditions of the 1980s.

> *Indian entrepreneurs had to cope with a really hostile business environment. For a one-day trip abroad, you needed the agreement of the Central Bank, which took two weeks. To import a computer worth $100,000, one had to wait three or four years and go to Delhi at least fifty times. Obtaining a new phone line took two or three years. During this decade, our growth remained modest. In 1982, we grossed $140,000. In 1991, our turnover stood at $1.4 million.*

The small number of domestic IT companies that existed mostly operated in a highly sheltered environment. A 1985 article noted that the federal government's Department of Electronics sought to protect the industry by imposing "the most elaborate set of controls for any developing country." The result, wrote the author, was "an extremely distorted development of the industry."

In 1984, Texas Instruments wanted to establish a research and development facility in India. As a condition of coming, the company insisted that the government grant import licenses within forty-eight hours via a so-called "single window," which meant that a single office oversaw the entire process, freeing petitioners from the standard practice of having to submit applications to multiple government departments. The company was initially told it wouldn't be possible, but the federal government later came around to creating a more flexible regulatory environment and eventually agreed to establish a dedicated satellite that was exclusive to the company (though more than two dozen regulations needed to be modified or abolished to make it happen). The cooperation paid off. The company agreed to establish an R&D facility in Bangalore, and became the first non-Indian technology company to do so. "This was the beginning of the IT reforms in India," recalls Chowdary. "We should thank Texas Instruments for making that happen." Indeed, many other companies followed Texas Instruments, as it presented an "operational model for offshore software development," writes Dinesh Sharma in *The Outsourcer: The Story of India's IT Revolution.*

The federal government created an entity that would radically simplify the regulatory approval process.

Another key development came in 1990. The federal government created an entity that would radically simplify the regulatory approval process. Known as the Software Technology Parks of India, it expanded the "single window" requested by Texas Instruments—providing a single place for project approvals, import certification, software valuation, and certification of exports for software exporters. It also granted tax holidays to select companies.

Building on the progress enabled by STPI, the 1991 reforms were an inflection point for the industry. Revenues generated by the country's IT firms grew from $150 million in 1991 to $5.7 billion in 2000. At Infosys alone, revenues grew from $1.4 million 1991 to $11.8 billion in 2019. Today, India's IT sector employs four million people directly and twelve million indirectly. Its success is a potent reminder of how an industry can thrive in India, and create economic opportunity for millions of people, under the right regulatory conditions.

—*M. Rees*

The STPI Mohali incubation center in Punjab, illuminated on the eve of Independence Day celebrations. The center opened in 2017, focusing on startups in areas such as drone technology, healthcare services, education, and agriculture.

The backdrop to Kelkar's observation was the explosion of trade following the 1991 economic reforms, rising from 17 percent of GDP in 1991 to 60 percent in 2017. This integration with the global economy was fundamental to India's economic progress. The greater openness to imports had a special benefit for the poor. A 2012 study found that every reduction in the weighted tariff rate of one percentage point reduced the poverty ratio by 0.57 percent. According to the authors, this reduction "implies that a 38 percent reduction in poverty during 1987–2004 can be attributed to change in the exposure to foreign trade." They went on to conclude, "In the case of urban poverty, we find not only that reductions in tariff rates have been associated with reductions in urban poverty across India's states, but also that the extent of this poverty reduction has been larger in states with flexible labor regulations."

Foreign direct investment was another dimension of India's integration with the global economy. This marked a sharp break with the past. In the pre-reform era, successive Indian governments made clear they did not welcome foreign companies. As a result, the companies largely stayed away. In 1990–1991, FDI totaled a paltry $100 million.

The lack of competition among producers in India often meant that products were in short supply and of poor quality. Even in the 1980s, it was routine to wait seven years for telephone service. A trade association representing large Indian companies once launched an initiative to encourage its members to focus on making quality products. Given the large domestic market and the absence of foreign competition, an economist told me that the prevailing mindset among many companies amounted to, "Why focus on quality?"

Millions of Indians were no longer leading lives of subsistence. They had money to spend—on housing, health, food, and education for their children.

Foreign direct investment was another dimension of India's integration with the global economy.

With the comprehensive FDI liberalization that began in 1991, investment began surging into the country. In 2005, inflows reached nearly $7.3 billion. After that, the inflows dramatically increased, never falling below $20 billion. In 2019, they reached $49 billion—a record high.

While there are no precise figures on the number of jobs generated by that investment, in 2017 the *New York Times* estimated that just one company—IBM—employed 130,000 people in India. (That's more than it employs in the United States.) Other large employers in India, according to the *Times,* were Oracle (40,000), Dell (25,000), Cisco (10,600), and Microsoft (8,000). But those numbers pale in comparison to Amazon. Earlier this year, the company claimed its investments in India had created 700,000 jobs in the country over the past six years. And it projects creating an additional one million jobs by 2025.

In addition to direct employment, when a developing country opens to foreign direct investment, its economy becomes more dynamic. Technology and knowledge are shared, and the competition forces domestic industries to raise their standards. Thus the Indian government's observation that FDI "plays a crucial role for accelerated economic growth."

THE PRIVATE SECTOR'S ANTI-POVERTY EFFECTS

Deregulating India's economy and opening it up to trade and investment were fundamental to economic growth. The country's services and trade sector has boomed—generating more than 60 percent of the country's GDP today, up from 39 percent in 1991. And the poor have seen great benefits. This sector's growth has accounted for more than 60 percent of the poverty reduction since 1991, according to research published last year by leading anti-poverty economists Gaurav Datt, Martin Ravallion, and Rinku Murgai. Two particular services sector industries were (and continue to be) force multipliers for India's economic growth and for poverty reduction: telecom and information technology.

The backdrop to India's telecom progress was the poor state of the country's telecom infrastructure. For decades, telephone service in India was extremely limited and of very poor quality. In 1980, when India's population was 700 million, there were only 2.5 million phones in the country. More than half of those phones were in urban areas and approximately 97 percent of India's 600,000 villages had no phones at all, according to Sam Pitroda, one of India's telecom pioneers.

The situation is radically different today. As of last year, there were ninety-one telephone connections for every hundred people in India, with 98 percent of those being wireless connections. The rise in tele-density has had major growth effects. Telecom is projected to account for more than 8 percent of India's GDP this year and supports three million jobs directly, plus another two million indirectly. Other studies show that for every 10 percent increase in the penetration rate of mobile phones, the economic growth rate rises 1.2 percent points higher. A 2016 study showed that a 10 percent increase in the number of Internet subscribers in an Indian state results in a 2.4 percent increase in growth of that state's per-capita GDP.

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Privatization and competition were two key drivers of the telecom sector's growth, coupled with opening to foreign investment.

The government maintained a monopoly on telecoms until the early 1990s, with the predictable result that the sector was severely under-developed. Privatization, which unfolded throughout the 1990s, brought many different companies into the sector and unleashed the expansion that enabled much of India to largely skip over landlines and go straight to mobile phones. That competition—particularly in mobile telecom—"arguably has done more to bring service to the poor than any policy to date," according to analysts Roger Noll and Scott Wallsten. Indeed, innovative companies such as Jio, led by multi-billionaire Mukesh Ambani, made big bets on the market's growth, leading the *Wall Street Journal* to write that he was "catapulting hundreds of millions of poor people straight into the mobile internet age."

Foreign investment has also been critical to the growth telecom industry, and the poor have benefited from competition among manufacturers of mobile handsets. An Indian telecom analyst has noted that the influx of many different companies—both in telecom manufacturing and services—"has led to fierce competition and cut-throat pricing. In order to increase customer base, the service providers slashed the call charges as well as data usage charges. This made the telecom services affordable to most Indians."

Prices for telecom service in India have plunged. A study published last year showed that India had the lowest mobile broadband prices in the world. This has expanded access for hundreds of millions of poor Indians who might have otherwise been unable to afford mobile service. As much as telecom contributes to India's GDP, the benefits of mobile phones and broadband for the poor are incalculable, as they provide expanded access to services (such as banking) and information that was limited in the past.

For all of India's progress, more than 200 million of its people still live in poverty and the business climate remains uneven. India still limits foreign direct investment in multi-brand retail, which has hamstrung Amazon's plans to expand in the country. But on the World Bank's ease of doing business rankings, it sits at 63rd—up from 142nd when Prime Minister Modi took office.

The current economic slowdown—growth in 2020 is projected to be at the lowest level in a decade—does not diminish India's extraordinary achievements. A country defined by poverty for decades now has a massive middle class, which translates to higher living standards for hundreds of millions of people and spending power that helps drive the economy to new heights. No less important, India stands as an example for other developing nations throughout the world—showing what's possible when market-based policies are implemented and individual enterprise is unleashed. ◆