Case Study 4

Understanding a Development Miracle: China

An Extraordinary Performance

From 1978 to 2011, the economy of China grew at an average rate of close to 9% a year, an unprecedented achievement for any economy in history, let alone the world's most populous nation, with over 19% of global population. China's income per capita by 2012 was approaching *six times* what it was in 1978, when reforms began. Growth was three times the rate that would be considered respectable by the recent standards of most low-income countries.

China has also experienced the world's most dramatic reductions in poverty. The World Bank's most recent estimate is that just 12% of China's population lives on less than $1.25 per day (27% below $2 per day). This means that hundreds of millions fewer people were living in extreme poverty in a span of just three decades. Reductions in extreme poverty in China are far faster and greater than anywhere else in the world.

Debate on Sources of Success

For such a stunning record, the roots of China's success remain a source of disagreement. The Chinese experience seems to change everything—but does it? And if so, in what ways? Success has a thousand fathers, and all the major traditional and new schools of thought on development want to claim China as their most important case in point. China is hailed as an example of the benefits of markets, trade, and globalization. Yet by conventional measures, institutions in China remain quite weak. For example, the World Bank's 2013 "Ease of Doing Business" index ranks China poorly, at No. 96—worse than Russia, Mongolia, Zambia, or Serbia. Manufactured exports are a key to China's growth, and market incentives have played a primary motivational role in business decisions. But China has also adopted activist industrial policies, pushing exports of increasingly higher skill and technology content, and it embarked on its period of rapid growth around 1980, more than a decade before significant trade liberalization. But often overlooked is that China's agricultural productivity growth was also very high. Moreover, much of China's growth in the 1980s and early 1990s was due to rural township and village enterprises, which had a quasi-cooperative and quasi-municipally owned character. There has been less privatization of state-owned enterprises than in most developing countries. In the meantime, countries in Africa, Latin America, and elsewhere that have most closely followed the free-market model have generally not done particularly well. While all schools may find something in China to let them claim it as vindication of their favored development policies, it is also clear that if China were performing dismally, each could (and likely would) find reasons why its own theories, including free-market theory, predicted such a failure.

There have been many special explanations for China's remarkable success. Many of them contain part of the truth, but such dramatic success is more than the sum of these parts. Let us review some of the explanations.

Regional "Demonstrations." The presence of regional "demonstration" models has been crucial. Japan was emulated by other countries in the East Asian region. Hong Kong provided an additional example for China, as did China's archrival Taiwan. Taiwan, Hong Kong, and South Korea focused on export-oriented industrialization strategy at a time when world trade was growing rapidly (see the end-of-chapter case studies for Chapters 12 and 13).

Leveraging the Lure of a Billion Consumers By the late 1980s, the locus of regional growth shifted to China as investors began to pour investments into China in large part because of the allure of its eventual market of more than 1.3 billion consumers. Government played off potential investors who wanted access to China's consumers, demanding and getting extensive technology transfer, public and private Chinese business partnerships, local content, and other concessions in exchange for the right to sell to Chinese citizens. Although the market was limited at first by both low incomes and government policies, early investors found high incentives to export from several special economic zones on the southeast coast. These investors discovered that China offered very cheap labor with unusually high skills and work habits for its income level.

Export-Led Investment and Growth Once early investments built up a sufficient critical mass, agglomeration benefits of concentrated economic activity kicked in (see Chapter 7). The more producers located in China, the greater the benefits for an increasing number of suppliers to operate there. At this point, investments started to feed on themselves in a cumulative causation. In the meantime, when wages began to rise, companies could set up production farther west, or migrants from the west could move to the new industrial centers. Given China's population of hundreds of millions of low-income farmers, expectations were formed that this process of wage restraint could continue for an extended time—although a string of wage increases beginning in 2010 began to challenge these expectations as financial analysts argued that the Lewis turning point had been reached (see Chapter 3).

Coordination After the bloody crackdown on Tiananmen Square protests in 1989, there was considerable doubt about whether the reforms would continue and therefore whether investment and growth would remain high (making other investments profitable). The Chinese leader Deng Xiaoping paid a 1991 visit to the southern China regions that had been leading in growth and reform and proclaimed, "You should be bolder and develop faster." A rapid burst of investment and growth, as well as policy reform, followed his speech and its subsequent publication. It has been suggested that in effect this served to coordinate expectations and led to the shift from a lower-growth to a higher-growth equilibrium. But much more generally, the government of China has used its centralized authority to coordinate investments across industries. Moreover, government negotiation of licenses and other business agreements helped ensure that China got more favorable deals than many other developing countries that relied on private company-level business transactions, although in this, the role model lessons from South Korea was also a benefit.

Health and Education Investments The central planning of China's first decades after its 1949 Communist revolution were by most measures a failure. Industry was highly inefficient. As many as 30 million people died in a late-1950s famine caused by poor central planning decisions and political pressures that led party and government officials to regularly overstate the harvest prospects. As Amartya Sen stresses, famines rarely occur in democratic countries with a free press. Such disasters were only partly offset by the early and ongoing emphasis on basic health and education in China and then on reductions of fertility through China's one-child policy (see the case study for Chapter 6). But these basic first steps on education, health, and eventually fertility helped set the stage for growth and poverty reduction when later combined with market incentives. One of the results is the apparently higher educational and skill level of factory workers for given wages in China in comparison to its competitor countries.

Productivity Growth There has been considerable debate about whether rapid growth in other East Asian countries is the result of capital accumulation or productivity gains. Alwyn Young, Paul Krugman, and others have concluded that South Korea and other Asian Tigers grew more from investing heavily in capital assets such as machinery and factories than by improved worker efficiency. Wing Thye Woo concluded that most of China's growth came from the reallocation of labor, particularly from agriculture to other activities, and that sustainable total factor productivity progress was much lower, on the order of 2% per year.

But for the case of China, Zuliu Hu and Mohsin Khan concluded that productivity gains explained more than 42% of China's growth in the formative

1979–1994 period and that productivity had overtaken investment by the early 1990s as the largest source of growth. This was considered surprising, in part because of the breathtaking pace of capital investments in China. But on the other hand, when China's rapid growth began in the late 1970s in the areas close to Hong Kong, while it was clear that a large volume of investment funds was flowing from capital-abundant Hong Kong (a British crown colony at the time) to capital-scarce China, the bigger story was the flow of productive ideas over the Hong Kong border, a barrier that had long prevented the transfer of both capital and know-how. Of these two factors, it often seemed that the ideas were more important than the finance.

There is widespread concern that by now, China has entered an investment bubble stage in which many investments are of dubious quality, particularly in real estate and some infrastructure and industrial sectors. Even so, the rapid pace of development in China has been unprecedented.

Recent research by Xiaodong Zhu, Loren Brandt, and their coauthors has provided new documentation that productivity growth, rather than mere factor accumulation, has been a very important source of China's rapid growth of output. In particular, Zhu has presented well-regarded evidence that productivity growth in the nonagricultural, nonstate-owned sector is the most important source of growth in China. Noting that productivity is still well below that of the United States, he argues that there should still be significant opportunities for productivity to continue to grow rapidly in China by adopting foreign technology, learning best production practices, and improving institutions and policies, particularly to allocate capital more efficiently.

In another study, Ashoka Mody and Fang-Yi Wang of the World Bank examined the causes of industrial growth in China and concluded:

> …much of the action came from region-specific influences and regional spillovers. Regional influences included the open-door policies and special economic zones that successfully attracted investments from overseas Chinese to particular locations. Existing regional strengths, especially high-quality human capital and infrastructure, also contributed to growth. Our results illuminate the interplay between conditions conducive for growth—for example, the contribution of foreign expertise is greatly enhanced by available human capital. China made judicious use of the advantages of backwardness by targeting areas that were less developed and less encumbered by the legacy of existing institutions, although it was fortunate in this regard that the backward regions were in close proximity to Hong Kong and Taiwan.

Thus, the China case also illuminates complementarities, a recurrent theme of this chapter.

Reform on the Margin

As examined in detail in Chapter 2, developing inclusive institutions that protect property rights and enforce contracts, and place checks on executive authority and the power of elites such as through the rule of law, have demonstrated importance in long-term economic development. China appears to be an outlier, in that such protections are demonstrably weak. Yet it is extremely difficult to navigate the course from bad to good institutions. It is rarely possible to follow a straight line on the map, as a vortex of obstacles are encountered, and the ship of state itself may be the cause of many of the problems. The process of getting the institutions right is one of starting with a clear understanding of both formal and informal local rules, and moving toward an eventual goal even when it cannot be seen clearly—in the presence of initial and then newly emerging constraints and opportunities, chartering what may seem to outsiders as large deviations off-course. A metaphor used by the post-Mao paramount leader Deng Xiaoping may also reflect in part this type of step-by-step, graduated process—"crossing the river by feeling the stones."

In China, the *way* that market incentives were introduced and used seems to have been almost as important as the fact that they were introduced at all. One of the most important features of the past quarter century of economic history in China has been the very gradual implementation of reforms. China's approach has been the opposite of that of many eastern European countries such as Russia and Poland, which opted for a "big bang," a sudden comprehensive changeover to a free-market economy. (Hungary and Slovenia are two countries in that region that pursued a more gradualist strategy.) China has introduced new and transitional institutions that exist side by side with previous institutions of central planning for extended periods. In the former Soviet Union and eastern Europe, central planning was abolished almost immediately, and economic depression, with drops in output of up to 50%, ensued before gradual recovery. In contrast, China kept the central planning system partially intact for an extended period. Previous quotas for buyers and sellers at fixed planned prices were maintained. Reform was instead introduced on the margin. After filling their quotas, producers were free to buy and sell at market-determined prices; resales were generally not prohibited. This "dual-track" system simulated the allocational efficiency of a more competitive market economy and created strong incentives for firms to improve efficiency and increase output, in a manner less threatening to the status quo.

Moreover, while in other transition and developing countries state-owned enterprises (SOEs) were sold off to private investors fairly quickly, in China these remained in government hands for an extended period. The government tried to reform them internally, with limited success. But at the same time, China has allowed and encouraged a new, more efficient sector to grow up around them. In recent years, China has privatized or closed many of the smaller SOEs. Many larger SOEs continue to operate in a relatively inefficient manner, and some economists have suspected for years that their accumulating indebtedness will eventually pose significant financial risks to the economy. But the counterargument proposes that if the economy can continue to grow rapidly, it is also possible that China may stay ahead of this problem without experiencing a financial crash. Eventually, as employment opportunities continue to expand, more of the larger SOEs can be privatized or closed.

Further, for the first nearly two decades of reform, from the late 1970s to the mid-1990s, at the local level, township and village enterprises (TVEs) were encouraged. The TVEs were vaguely owned by local government, but their private entrepreneurs and employees held "vaguely defined" property rights, as Martin L. Weitzman and Chenggang Xu termed them. These TVEs accounted for a very large share of industrial output growth in China. Finally, after the Chinese economy had grown nearly fourfold, the majority of these TVEs were privatized in the late 1990s—by this point the private entrepreneurs had triumphed (or their underlying control became clarified). But the TVEs played a unique role in spurring growth and spreading the benefits of development to rural areas.

Reforms in the late 1970s and 1980s favored agriculture and entrepreneurship in the rural areas where most of the poor lived, and poverty fell as income rose. From at least the early to mid-1990s, the terms of trade shifted toward industry and urban areas. Yasheng Huang makes a strong case that this represented an important turning point, associated with growing inequality and other serious challenges.

Still, strong average growth continued through many changes. As outlined by Yingyi Qian, China's transitional institutions have served a dual purpose: to improve efficiency while compensating the losers (and thereby preserving legitimacy or at least reducing the chance of political backlash). Provided that the quotas were enforced—and for the most part they seem to have been in the transition in China—the dual-track allocation system protected the interests of those who had benefited from and planned on receiving inputs at fixed, low prices. As a result, these agents did not oppose or undermine reforms and indeed could benefit further to the degree they could learn to produce more efficiently and operate in markets effectively. The system was largely phased out many years later, after the economic landscape had changed dramatically.

The vague local-government ownership of the TVEs provided protection for investors who feared government hostility toward private property and worried about expropriation. The impression that these companies were owned by the township or village protected the de facto private owners. Once reform proceeded to a certain point, these de facto owners were able to "take off the red hat," as the saying went in China, and assume full ownership in exchange for considerations to local government, and taxes replaced direct revenue transfer out of the TVEs. Qian shows how similar arguments apply to fiscal and financial reforms. Under the reforms, local government continued to have a responsibility to provide revenue to the central government, but local government was allowed to keep a large share of collections on the margin before local and central revenue collection was fully separated. Government also allowed anonymous banking accounts for a long transition period, to credibly constrain the ability of the government to arbitrarily impose high individual taxes on successful entrepreneurs; Qian judged the program a success despite the fact that this diverges from what is considered normal best practice in advanced Western countries.

Yingyi Qian's insightful explanation is:

> The difference between China and Russia is not at all that China has established best-practice institutions and Russia has not. The difference lies in the institutions in transition.…The real challenge in reform facing transition and developing countries is not so much knowing where to end up, but searching for a feasible path toward the goal. Therefore, it focuses on transitional institutions, not best-practice institutions.…The general principle of efficiency-improving and interest-compatible institutional change is simple, but the specific forms and mechanisms of transitional institutions often are not. Successful institutional forms usually are not a straightforward copy of best-practice institutions. They need not be and sometimes should not be. They need not be because room exists for efficiency improvement that does not require fine tuning at the beginning. They should not be because the initial conditions are country- and context-specific, requiring special arrangements.… Understanding these mechanisms sometimes needs an appeal to the counterintuitive second best argument, which states that removing one distortion may be counterproductive in the presence of another distortion.

Finally, for peasants in parts of China where the rural sector has done well, earlier land reforms have been among the causes—with the revolution setting the stage and the late-1970s reforms giving greater incentives to individual farmers. Land reform has been notoriously difficult to implement in other parts of the world. Remittances from migrant workers have fueled a service-sector boom in some rural areas, and prices received by farmers have generally risen, particularly near urban areas.

China's Coming Challenges

China's successes do need to be kept in perspective. Since 1980, China has grown about 4½ times faster than the United States, as measured by per capita output. As a result, China has been closing the *relative* gap in living standards. In 1980, China's income per person was only 2% of that in the United States, but by 2012, it had grown to over 15%. But even if China's output per person continued to grow at its unprecedented recent rate of 8.4% and the United States at its long-run rate of just 1.9%, China would still not catch up until close to 2040.

A high rate of domestic saving is associated with a trade surplus. Savings have been extremely high and rising in China. As of 2011, China was saving nearly half of its national income—an astounding and unprecedented rate compared to the country's own past rates (already a high 35% in 1990) and in relation to the high rates that have generally prevailed in East Asia. Such high rates are not consistent with the pivot toward increasing local consumption as an engine of growth.

It is now generally accepted in China and internationally that continuing to grow at such high rates is essentially impossible. Before China grew rapidly, South Korea did so, and before South Korea, Japan did. The later a country starts modern economic growth, the faster it can grow because the distance from traditional methods to the frontier technology of the day grows greater over time. But the pace of catch-up generally slows as an economy gets closer to the technology frontier and needs to innovate. Policymakers in China are actively preparing for this challenge. Despite its extraordinary record to date and considerable resources at its disposal, the substantial challenges that China faces in its attempt to reach developed country status should not be underestimated. There are some other limits and caveats to China's success and to the lessons that other countries can learn from it.

Poverty and Vulnerability Life can indeed be harder than ever for the millions remaining in extreme poverty, such as rural peasants in some parts of the country facing the loss of security; official corruption, including reports of official land grabs from peasants; rising local taxes; and minimal improvements in technology or skills. At the same time, despite the growth in average wages, inequality in China—once quite low—has been rising dramatically; inequality has now reached approximately the same level as in the United States, worst among the developed countries.

Environment and Pollution Moreover, the environmental crisis in China is reaching epic proportions. A majority of the most polluted cities in the world are located in China, and health problems are growing. Water resource problems, erosion, and loss of habitat undermine the prospects for sustainable development. The extreme air pollution is now causing not just misery but deaths and other serious and growing health problems. This reached historic proportions in the so-called Beijing “airpocalypse” of January 2013, when pollution indicators exceeded 40 *times* World Health Organization standards; many other cities such as Tianjin and Harbin have been severely affected. There are very few historical precedents for prolonged pollution exposure of this magnitude. But a 2013 joint study by China, United States, and Israel university researchers estimated that air pollution in China has already decreased live expectancy north of the Huai River by an amazing 5.5 years, including increases in lung cancer, heart attack, and stroke.

Moreover, China’s looming water shortages threaten to curtail industry, coal production, and agriculture. Some of China’s environmental challenges result from global climate change; but many if not most result from poor national management of the environment. Although China produces about one-tenth of global output, it consumes nearly one-fifth of the world’s energy production. Coal accounts for more than 70% of China’s electricity production. Coal generates more greenhouse gases than any other significant energy source. Coal production also uses a lot of water. The rapid expansion of coal use is placing major demands on China’s increasingly scarce water supply, adding to the growing demands stemming from irrigation and expanding cities. China is now the world’s largest emitter of greenhouse gases such as CO_2, and emissions have been growing rapidly (see Chapter 10).

Product and worker safety Since 2007, highly publicized scandals concerning the safety of food, drugs, and other consumer products threatened the international public image of Chinese-made products. Indeed, product safety standards are low, and their regulation is lax. Foreign and local investors, and government, all share in the blame. China’s regulatory institutions will need to catch up with the progress made in other aspects of national economic development.

Avoiding the Middle-Income Trap Chinese officials and researchers are also concerned about susceptibility to the “middle-income trap” and are engaging discussions with Latin American countries on this topic; Huang Yiping and Jiang Tingsong stressed that what “really trapped many Latin America and Middle East middle-income countries was lack of innovation capability. They failed to move up the industrial ladder beyond resource-based activities. This will also be the real test for China.” As the IMF concluded in its October 2013 *World Economic Outlook*, “There is strengthening conviction that China will grow more slowly over the medium term than in the recent past.” The alternative is probably wasteful and unsustainable investment that would result in serious economic crises. The question for China will be how it can maintain somewhat more modest but historically still high growth, of perhaps 6.5%, sustainably over the next three decades. An economy growing at this rate must have a different structure of investment than an economy growing at 10% (as China did in 2010). Making these adjustments will not be easy. Developing innovative capacity will be an important part of the answer; first steps are being taken, but better institutions may be needed to sustain the momentum.

Addressing Structural Imbalances There are several other imbalances in China’s economy that may lead to problems going forward. The World Bank pointed out in its 2013 *Global Economic Prospects* that “ongoing rebalancing efforts remain a priority, as does engineering a gradual decline in its unsustainably high investment rate.” The report also stressed that “should investments prove unprofitable, the servicing of existing loans could become problematic—potentially sparking a sharp uptick in nonperforming loans that could require state intervention.”

China’s very large export surplus has come under great criticism, as this was widely argued to be one of the underlying causes of the global financial crisis. One cause of the surpluses is probably the undervaluation of China’s exchange rate, estimated to be at least 20%. Undervaluation has been used by a number of East Asian economies as an industrial strategy for encouraging expansion of the manufacturing sector (notably in the 1960s and 1970s by South Korea and Taiwan; see Chapter 12), but those economies were much smaller than that of China. Note, however, that as recently as 2009 analysts estimated rates of overvaluation of up to 40%, approximately double the estimates of just four years later; and the external surplus as a share of GDP has decreased to a correspondingly degree since then (see Chapter 12 for details on measurement and analysis of international trade). Indeed, by 2013, some manufacturers found themselves struggling to adapt to a less overvalued currency.

Inevitably, more China-based firms will engage in direct foreign investment in their export destination countries such as the United States, just as Japan and South Korea did before them; but this will be a drawn-out process due to China's still relatively low (if strongly growing) average productivity level, and also probably national security worries arising in Europe and Japan as well as in the United States.

Another factor in the large trade surplus is China's high rate of savings, mentioned earlier, where the savings rate, long well above international averages, increased dramatically in the 1998–2010 period (when it peaked at approximately 49% of national income).

In parallel, investment as a share of GDP, long over 40%, reached an unprecedented 48% by 2010, before moderating slightly. Part of the uptick in recent years was due to an active response to the 2008 global economic crisis. The adjustment to sustainable investment and growth rates will be extremely difficult to accomplish without major and possibly prolonged disruptions. Yet in one sense the scope of the problem may also be somewhat exaggerated by the way national statistics are prepared, which as Jun Zhang and Tian Zhu argued in a 2013 study does not account for hidden consumption by the growing number of high-income citizens, the rent-equivalent consumption of owner-occupied housing, and reported corporate expenses that are actually more like private consumption. On the other hand, on the other side of the balance sheet, the extraordinarily high investment—with evidence showing that a significant amount of it is at very low productivity—has not been challenged, and these statistics (including international trade and finance data) must be considered and better understood as a whole.

The huge indebtedness of the state-owned enterprise (SOE) sector and other public debt (such as local government loans using land collateral) is thought by some financial commentators to be likely to eventually lead to a significant financial crisis—though other analysts argue that China can "grow its way out of" these problems.

For years, analysts have expressed concerns about the risk of "bubbles" (see Chapter 13) developing in financial and housing markets, due to very high rates of debt-financed investment. The potential problem has only worsened: just from 2008 to 2013, the overall credit to GDP ratio increased from about 120% in 2008 to close to 200%. This again connects to China's unprecedentedly high investment rate and low consumption rate; adjustment is now essential, and indeed has begun, but the extent of the imbalances suggests that the transition from investment-led to consumption-led growth will be unusually long and difficult, and is very unlikely to be entirely smooth.

Political Weaknesses There are also political weaknesses. On the one hand, some analysts make a case for the strengths of more authoritarian regimes, at least in early stages of development and when leadership fosters a developmental state. But on the other hand, this may make for a less flexible response to changing circumstances and difficulties in escaping a possible middle-income trap. Some leaders in China have called for urgent political reforms. And the dramatically worsened inequality in China may undermine not just political stability but ultimately opportunities for future growth (for details on the challenges of rising inequality for growth and development, see Chapter 5).

Relatedly, China will need to find a way to continue its ongoing institutional reforms, whether through implementing new and productive transitional institutions or more fundamental change. In their 2012 book, *Why Nations Fail*, Daron Acemoglu and James Robinson make an extraordinary argument that institutional weaknesses will ultimately stall development in China. In their argument, institutions in China closely resemble the "extractive" political systems of other failed states where crony capitalism is the norm, vested interests are protected, and potentially disruptive entrepreneurs are blocked. They conclude that growth in China will ultimately be "unlikely to translate into sustained economic development." While relatively few analysts think the challenges are this steep, undoubtedly the needed reforms will be politically difficult to undertake.

The much-anticipated economic and social policy changes announced at the Third Plenum in November 2013 promised a further "unleashing" of market forces with their rhetoric promotion from a "basic" to "decisive" role—even if some details were left vague, and some predictions for reform were not realized (particularly in the field of finance). But left unambiguous was that the

Communist Party monopoly on political control remained unchallenged—and indeed seemed to have been reinforced.

Finally, despite the extraordinary economic growth in China, Richard Easterlin has found that improvements in happiness and satisfaction in the country simply have not kept pace, particularly among the bottom third.

Managing Urbanization The scope of urbanization in China has been called the largest migration in human history, and indeed it has been breathtaking. For the first time in its history, China has become a more urban than rural society, with the halfway mark believed to have been crossed sometime in 2011; as recently as 1980, more than 80% of Chinese citizens lived in rural areas. Before 2030, China may reach the "Urban Billion" mark. Chongqing featured in the vignette in Chapter 1, growing from 200,000 in the 1930s, to about 2 million during the Cultural Revolution of the 1970s, to now over 30 million people in the metropolitan area. In the south, Shenzhen was transformed from a fishing village near Hong Kong to another megacity in just a couple of decades. But conditions of ordinary people in many cities do not correspond to the media images of postmodern skyscrapers, as most are moving to large tracts of sometimes bleak, uniform apartment buildings, crawling in epic traffic jams through a vast urban sprawl—and indeed inhaling the "breathtaking" air pollution—in a picture simultaneously of public overinvestment in some areas and underinvestment in others.

Demographic Challenges

China also has a rapidly aging population. For the last decade of the twentieth century and first decade and a half of the twenty-first century, China has benefited from a *demographic dividend* (see Chapter 6), in which by global standards an unusually large fraction of its population has been of working age (neither too young nor too old to be active in the workforce). This "dividend" occurs in the process of economic development after the drop in births per woman but before the previous larger cohorts retire, allowing for rapid income growth. China is now entering a phase in which a large fraction of its working population will begin to retire. One challenge is the need to implement a modern pension system. Another is to respond to a shrinking workforce and the need to support a large retired population. It is a challenge common to many modern societies but may be particularly acute in China due to its one-child policy that has been in effect since about 1980, which has greatly accelerated the demographic transition. There was a slight relaxation of this policy at the Third Plenum in November 2013, to allow urban families for which either husband or wife is an only child to have a second child (previously this was allowed only if each was an only child). But this change may have very limited impact on fertility because of the high cost of raising children in China's cities. The very high ratio of males to females (see Chapter 8) remains another serious demographic challenge that may lead to continued distortions.

There are several explanations of China's historically unprecedented high savings rates (approaching 50% by some measures), but many of them relate to the unusual demographic challenges; they include "life-cycle" saving for retirement by an aging population that lacks social security, precautionary savings due to increased income uncertainty because of fears about catastrophic family events such as major illnesses or layoffs, poor financial intermediation, and—in an influential new theory of Shang-Jin Wei and Xiaobo Zhang—competitive saving by parents of sons who now greatly outnumber daughters due to China's growing sex-ratio imbalance and compete for prospective wives by offering larger houses and other wealth. High savings may be associated with the apparent property bubble that some economists in China believe has become dangerous—yet China has demonstrated a capacity for managing challenges, and considerable reserves for addressing crises.

Other Limits to Emulating China's Policies

There are other limits to the lessons of China's growth for other developing countries. China is quite homogeneous, overwhelmingly populated by members of the Han ethnic group. In Africa and other parts of the world, ethnic diversity is associated with slower growth, though only in countries that also have incomplete or nonexistent political freedoms. Clearly, China is lacking in many freedoms. There may be limits to the ability of other countries to carry out China's brand of centrally designed and implemented policies for transition and directed growth when either broader democratic freedoms are in place or greater ethnic diversity is present. Finally, China, like much of the rest of East Asia, has a relatively poor endowment of natural resources. Many development specialists have concluded that this lack is actually more of a benefit than a drawback. Natural resource abundance encourages political infighting for control over the revenues, while manufacturing success is more important when a country does not have natural resources to fall back on. It requires more initiative and more efforts to upgrade technology and skill. In terms of geographic advantages, East Asia is also much less plagued than Africa and other developing regions by problems such as malaria and other tropical diseases for which medicines are not readily available, the difficulties and disadvantages of tropical agriculture, and the problems of landlocked countries.

The experience of China assures us that the East Asian miracle is not a fluke due to special local factors in economies such as South Korea and Taiwan. It gives us much greater confidence when we say that "real development is possible." On the other hand, there are clear limits to the ability of other developing regions to emulate the success of China. Not only do other developing countries differ in geography, demography, institutions, and allure to foreign investors, but also other regions may find themselves starved for investments that are redirected to China while remaining unable to compete with China's impressive combination of low wages, high skills and know-how, and agglomeration of economic activity. Some East Asian countries have greatly benefited from the surge in import demand from China. The commodity price boom of recent years, which has stimulated demand in several countries in Africa, is significantly attributable to growth in China. And China itself has a good chance of continued high, albeit moderated growth, provided it manages the next phase of its transition carefully. In the meantime, many developing countries that have hoped to rely more on manufactured exports view the success of China as much as a threat as an opportunity. Growth in China will continue to be a central theme in the global development drama—both in its huge economic impact and the policy debate spurred by its extraordinary achievements. ■

Sources

Acemoglu, Daron, and James Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty.* New York: Crown Business, 2012

Asian Development Bank. *The National Accounts of the People's Republic of China: Measurement Issues, Recent Developments, and the Way Forward.* Manila, Philippines: Asian Development Bank, 2007.

Brandt, Loren, and Xiaodong R. Zhu. "Distribution in a decentralized economy: Growth and inflation in China under reform." *Journal of Political Economy* 108 (2000): 422–439.

Byrd, William, and Lin Qingsong, eds. *China's Rural Industry: Structure, Development, and Reform*. New York: Oxford University Press, 1990.

Chen, B., and Y. Feng. "Determinants of economic growth in China: Private enterprise, education, and openness." *China Economic Review* 11 (2000): 1–15.

Chen, Shaohua, and Martin Ravallion. "China's (uneven) progress against poverty." *Journal of Development Economics* 82 (2007): 1–42.

———. "Learning from success: Understanding China's (uneven) progress against poverty." *Finance and Development* 41 (2004): 16–19.

Easterlin, Richard A. "When growth outpaces happiness." *New York Times*, September 27, 2012, http://www.nytimes.com/2012/09/28/opinion/in-china-growth-outpaces-happiness.html?_r=0.

Financial Times, numerous issues: the authors acknowledge the general contribution of the in-depth daily reporting on China by the *Financial Times* in informing the development of this case study over more than a decade.

George Washington University, Institute for International Economic Policy. "G2 at GW: Annual Conferences on China's Economic Development and U.S.-China Economic Relations", 2008–2013; "virtual conference volumes" at http://www.gwu.edu/~iiep/G2_at_GW/.

Hu, Zuliu, and Mohsin S. Khan. "Why is China growing so fast?" IMF Working Paper No. 96/75, 1996.

Huang, Yasheng, *Capitalism with Chinese Characteristics*. New York: Cambridge University Press, 2008.

Islam, Nazrul, and Kazuhiko Yokota. "Lewis growth model and China's industrialization." *Asian Economic Journal* 22 (2008): 359–396.

Krugman, Paul. "The myth of Asia's miracle." *Foreign Affairs* 73, No. 6 (1994): 62–78.

Lau, Lawrence J., Yingyi Qian, and Gérard Roland. "Pareto-improving economic reforms through dual-track liberalization." *Economics Letters* 55 (1997): 285–292.

———. "Reform without losers: An interpretation of China's dual-track approach to transition." *Journal of Political Economy* 108 (2000): 120–143.

Lu, D. "Industrial policy and resource allocation: Implications of China's participation in globalization." *China Economic Review* 11 (2000): 342–360.

Miller, Tom. *China's Urban Billion: The Story Behind the Biggest Migration in Human History*. London: Zed Books, 2012.

Mody, Ashoka, and Fang-Yi Wang. "Explaining industrial growth in coastal China: Economic reforms…and what else?" *World Bank Economic Review* 11 (1997): 293–325.

Qian, Yingyi. "How reform worked in China." In *In Search of Prosperity: Analytic Narratives on Economic Growth*, ed. Dani Rodrik. Princeton, N.J.: Princeton University Press, 2003.

Rawski, Thomas. "Measuring China's recent GDP growth: Where do we stand?" October 2002. http://www.pitt.edu/~tgrawski/papers2002/measuring.pdf.

Romer, Paul M. "Idea gaps and object gaps in economic development." *Journal of Monetary Economics* 32 (1993): 543–573.

———. "Two strategies for economic development: Using ideas versus producing ideas." *Proceedings of the Annual World Bank Conference on Development Economics, 1992*. Washington D.C. World Bank, 1993, pp. 63–91.

Sen, Amartya. *Development as Freedom*. New York: Knopf, 1999.

Smith, Stephen C. "Employee participation in China's township and village enterprises." *China Economic Review* 6 (1995): 157–167.

Smith, Stephen C. "Industrial policy and export success: Third World development strategies reconsidered." In *U.S. Trade Policy and Global Growth*, ed. Robert Blecker. New York: Sharpe, 1996.

Smith, Stephen C., and Yao Pan, "US-China Economic Relations," in *Oxford Companion to the Economics of China*, eds.: Shenggen Fan, Ravi Kanbur, Shang-Jin Wei, and Xiaobo Zhang. Oxford University Press.

United Nations Development Programme. *Human Poverty Report, 2000*. New York: United Nations, 2000.

Vogel, Ezra. *One Step Ahead in China*. Cambridge, Mass.: Harvard University Press, 1989.

Wei, Shang-Jin, and Xiaobo Zhang. "The competitive saving motive: Evidence from rising sex ratios and savings rates in China." NBER Working Paper No. 15093, 2009.

Weitzman, Martin L., and Chenggang Xu. "Chinese township and village enterprises as vaguely defined cooperatives." *Journal of Comparative Economics* 20 (1994): 121–145.

Woetzel, Jonathan, et al. *Preparing for China's Urban Billion*. McKinsey Global Institute, February 2009.

Woo, Wing Thye. "Chinese economic growth: Sources and prospects." In *The Chinese Economy*, ed. Michel Fouquin and Françoise Lemoine. London: Economica, 1998.

Yiping, Huang, and Jiang Tingsong. "What does the Lewis turning point mean for China? A computable general equilibrium analysis." China Center for Economic Research Working Paper No. E2010005, March 2010.

Young, Alwyn. "The tyranny of numbers: Confronting the statistical realities of the East Asian growth experience." *Quarterly Journal of Economics* 110 (1995): 641–680.

Zhang, Jun, and Tian Zhu. "Re-Estimating China's Underestimated Consumption." Working paper, China Europe International Business School, September 7, 2013.

Zhou, Ning, Yunshi Wang, and Lester Thurow. "The PRC's real economic growth rate." Unpublished report. Cambridge, Mass.: Massachusetts Institute of Technology, 2002.

Zhu, Xiaodong, "Understanding China's growth: Past, present and future. *Journal of Economic Perspectives* (Fall 2012).