

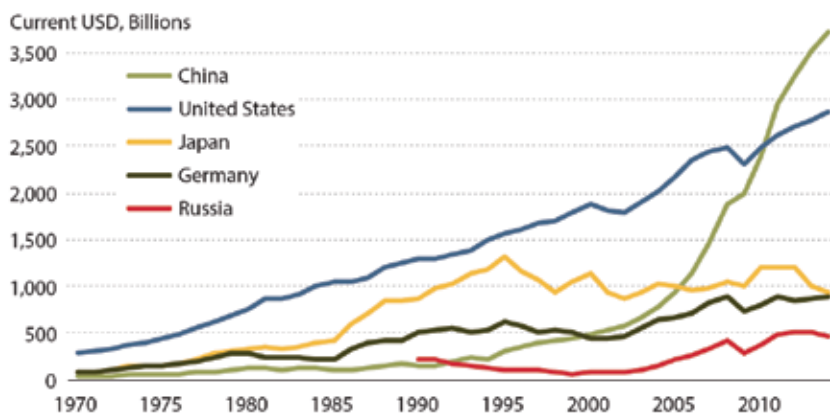
# China's Rapid Economic Rise: A New Application of an Old Recipe

Yi Wen and Scott Wolla

Thirty-five years ago, China was one of the poorest nations on Earth. Its per capita income was only one-third of that of sub-Saharan Africa. But a miraculous transformation has taken place. The Chinese economy, as measured by GDP, is now second only to the United States.<sup>1</sup> Among other things, China is the world's largest producer of steel, cement, cotton, copper, aluminum, passenger cars, high-speed trains, ships, tunnels, bridges, highways, machine tools, cell phones, computers, robots, air conditioners, refrigerators, washing machines, furniture, fertilizer, agricultural crops, as well as college students.<sup>2</sup> In a single generation, it has been transformed from a backward agrarian nation into a manufacturing powerhouse (see Figure 1).<sup>3</sup> And yet, even after 35 years of rapid economic growth, China is far from being a wealthy nation—its GDP per capita (an indicator of standard of living) is \$14,300, while GDP per capita in the United States is \$56,100.<sup>4</sup> It is no wonder that many have taken an interest in China's historic rise. In this article, we will examine China's economic development through a series of key questions.

Figure 1

Manufacturing Output (1970-2014), Top 5 Countries in 2014



SOURCE: United Nations.

## Are Democratic Institutions a Necessary Precursor to Economic Development?

The standard model for economic development in the twentieth century went something like this: If nations set up the right institutional framework

(i.e., democracy and private property rights), markets would emerge and wealth would then be created by market participants.<sup>5</sup> These ideas go back to Adam Smith's description of the invisible hand of the marketplace: If the economic conditions provide the environ-

ment for mutually beneficial trade, and hard work is rewarded with profits, then self-interest will drive people to produce goods and services and sell them to others. The profit motive would ensure that producers produce what people want, and competition would incentivize them to produce efficiently according to the best technology available and offer their goods at competitive prices. Over time, new technologies would be invented, industries would upgrade and economies would develop. What was the recipe for economic development in this framework? Economists often suggested an institutional recipe that included a mix of these ingredients: the rule of law, private property rights, open and competitive markets, and democratic political instructions.<sup>6</sup>

This recipe seemed to work well in some cases. For example, South Korea emerged from World War II after defeating communism in 1948 and became an economic powerhouse in a very short time—due largely to this institutional mix. It provided a stark contrast to communist North Korea, in spite of sharing so many variables in common. But when the story is examined more closely, one discovers that the economic transformation, which started in the 1960s, was under the dictatorial rule of Park Chung-hee. In fact, several historical examples suggest that democracy is not a prerequisite for economic growth. Germany's growth from 1850 to World War I, Russia's growth from 1860 to World War II, and Japan's industrialization during the Meiji

Bikes are parked in front of a poster bearing a picture of the Central Business District area, outside a construction site in Beijing, China, October 19, 2016. REUTERS/Jason Lee



Restoration all took place under monarchy.<sup>7</sup> In short, the experience of many nations involves economic development apart from democracy. Or, as Nobel Laureate Milton Friedman argued in his aptly named treatise *Capitalism and Freedom*, capitalism is a necessary condition for democracy, not the other way around.<sup>8</sup>

### What other Economic Development Recipes has China Tried?

China has tried several strategies to industrialize. The late Qing Monarchy (1861–1911) tried to modernize its backward agrarian economy by building modern industry in the cities and industrializing from the top down. It pursued its policies for 50 years, failed, and was overthrown by the Xinhai Revolution in 1911. The new government attributed backwardness to lack of democracy and established the Republic of China. The Republic's leaders adopted a Western-

style constitution with separation of powers and democratic elections (much like the institutional reforms proposed by later economists). The rallying cry was “only science and democracy can save China.” These efforts also failed, leaving China as one of the poorest nations on Earth. The Communists rose to power in 1949 and established a Soviet-style central planning model that attempted to leapfrog from a backward economy into the modern industrial age, again by using a top-down model, only to fall three decades later.<sup>9</sup> Once again, China was stuck in a poverty trap.

It seemed as though China had used every known recipe: monarchy, constitutional democracy, and communist economic planning. However, one recipe remained: the more gradual, bottom-up approach of economic development used by Great Britain and the United States—the one we know as the Industrial Revolution.

### How has China's Economic Development been Like the West's Industrial Revolution?

The Industrial Revolution began in Great Britain in the 1760s. For centuries, commercialized agriculture and rural industries focused on long distance trade; the aim was to use rural surplus labor to generate wealth for the merchants, relying on a unified domestic market and international trade facilitated by Great Britain's vast colonial empire. This environment led to the division of labor and specialization, which increased productivity, spurred economic growth, and opened new trade opportunities. This initial phase provided a foundation for the First Industrial Revolution, which introduced simple machines into the spinning and weaving process to allow for mass production of textile goods in factories. The unified domestic and global world market allowed these mass-production industries to flourish. As trade volume rose and the market

deepened, the demand for new forms of energy, power, and transportation triggered a Second Industrial Revolution. The Second Industrial Revolution featured mass production of the means of mass production such as iron, steel, chemicals, and machinery. Eventually economic success and rising living standards led to social changes such as the National Insurance Act and universal suffrage in Britain.

A striking similarity can be found in U.S. history. After more than a 100 years of rural development, the first American Industrial Revolution started in the early nineteenth century with technologies adapted from the British textile and rail industries (1820s–1860s); during this period, the U.S. government continued to nurture America’s domestic market by building a nationwide canal network and playing a leadership role in the construction of America’s railroad system. The first stage of industrialization created a unified domestic market far larger than Britain’s; this ushered in the second American Industrial Revolution, which involved mass production of steel, automobiles, telecommunications, chemicals, and mechanized agriculture (1870–1940). Again, rising living standards led to social change, such as the civil rights movement and the expansion of social welfare programs in the 1960s.

China’s economic transformation began in 1978 under Deng Xiaoping, who replaced the top-down, command economic policies that had been adopted by the Communist Party since it came to power in China in 1949 with a market-oriented approach. China took a very gradual, experimental approach that used a bottom-up reform plan, and relied on central and local governments to play a bigger role in market creation, starting in the rural areas. In the absence of a well-financed class of investors and business leaders who helped create unified markets in the United Kingdom and the United States, China relied on government officials (from central and local levels) to provide conditions for markets to emerge within a controlled environ-

ment. The strong state-led development approach featured bottom-up industrial policy, gradual and sequential reforms, social order, and political stability.<sup>10</sup>

The bottom-up gradual reforms in China started solving China’s food security problem without privatizing the public ownership of land; rather, it created incentives for farmers—giving them flexibility in decision-making and allowing them to profit from crops in excess of a quota. These reforms resulted in a boom in agricultural activity starting in 1978. The process started with industrializing primitive rural economies. It then moved to light industry and finally heavy industry, in a process that mirrored the British Industrial Revolution. This process had a dramatic social and economic impact—the annual economic growth rate increased from 3.6 percent (average from 1952–1978) to nearly 10 percent (average 1978–2012); the share of the labor force in agriculture fell from

75 percent in 1977 to 33 percent in 2012; and the number of newspapers, books and TV channels expanded by hundreds fold.<sup>11</sup>

### Why did China’s Reforms Beginning in 1978 under Deng Xiaoping Succeed when Earlier Efforts had Failed?

Deng Xiaoping’s bottom-up, gradual process of development began with reforms to key economic sectors, starting with the agricultural sector, and then moving to the light industrial sector, the heavy industrial sector, and finally to the financial sector. This process allowed the mass market to develop sequentially along with the industrial base, which was necessary to support China’s own Industrial Revolution, stage by stage. In other words, as farmers and rural populations realized the gains of the early industrialization, their improved standards of living and purchasing power helped fuel

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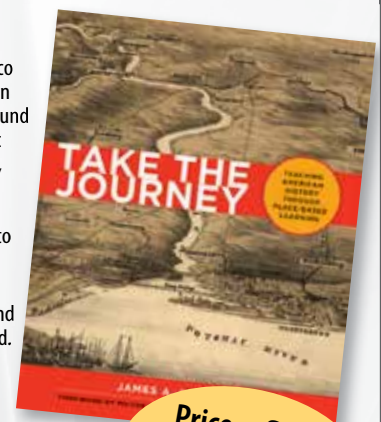
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rising demand, and helped sustain the economic transformation as it spread to new industries. For example, fueled by rising demand and increasing productivity, China's total production of yarn increased from 330,000 tons in 1985 to 8.5 million tons in 2002—a 23-fold increase in 17 years. Cotton fabric production increased from 1.9 billion meters in 1985 to 32.2 billion in 2002—a 15-fold increase. By the early 1990s, the textile industry included 24,000 enterprises and employed about 8 million, making it China's largest manufacturing industry and accounting for 20 percent of its total exports.

But this market did not emerge on its own—the government played a vital role by supporting its development with political stability, social trust, and infrastructure. In a sense, these supports acted as government-provided public goods. While Mao's regime focused on heavy industry and ignored market creation, Deng encouraged market creation (starting in the rural areas) and promoted the labor-intensive textile industry because it was consistent with China's comparative advantage: it had an abundance of labor, it did not require advanced technologies, it had low entry costs, and the domestic and international markets for textiles were huge. Earlier efforts to industrialize from the top down ignored these factors.<sup>12</sup> Under Deng's reform, land was not privatized in rural areas but instead remained collectively owned by the farmers, which dramatically reduced the transaction costs of building rural industries and public infrastructure.

It's tempting to rush the stages of economic development, expecting an economy to leap from agrarian to industrialized. But in some ways economic development is similar to human maturation—it often occurs in distinctive stages. Consider how students learn mathematics. Math has developed as an academic discipline over thousands of years, but every generation must begin with basic arithmetic—it cannot jump into calculus in kindergarten.<sup>13</sup> In the same way, China failed when it attempted to leap forward

by starting its industrialization process in the big cities by imposing heavy-industrial technology and modern institutions before the market and other economic components had developed.<sup>14</sup> China learned that the mass market and its economic infrastructure had to develop before and alongside the stages of industrialization so it could thrive.

### **What Does the Future Look Like for China's Economy?**

China has come under pressure from the world community to adopt social welfare programs and environmental standards that mimic those of Western industrialized nations. China's hesitancy to adopt these reforms has been criticized by policy and opinion leaders in other developed nations, who view China as backward. Those who would impose these expectations on China forget that China is still in the early stages of development (relatively speaking) and its people are far from wealthy. From the Chinese perspective, these expectations violate the historical sequence of development.

Some economists suggest that it is only in the latter stages of development that an economy can afford luxuries such as environmental quality and social welfare programs. This idea, pioneered by economist Simon Kuznets in the 1950s, is sometimes referred to as the “grow first, clean up later” strategy. It suggests that the first concern of an emerging economy is lifting its people out of poverty through economic growth.<sup>15</sup> The industrialization process that makes economic growth possible is often accompanied by an increase in economic inequality (as incomes rise at different rates) and a decrease in environmental quality (industrialization produces pollution). Kuznets suggested that as an economy grows and its people become wealthier, they will begin to value social justice and environmental quality and will make the necessary choices to achieve them—including paying for them. So, in a sense, environmental quality and social welfare are luxury goods—demand for them tends to increase as income increases.

While the concept has become mainstream, it is not without controversy.<sup>16</sup>

Britain and the United States produced a lot of pollution during their Industrial Revolution before they moved from heavy industrial manufacturing to a cleaner, more service-based economy. After they acquired an elevated standard of living, they began to address inequality and environmental quality. China, too, has moved from light industry to heavy industry and will transition to a cleaner, more sophisticated service-based economy in the future. As noted above, China is under increasing pressure to adopt higher pollution standards; but those who are making these demands can look at the recent history of Western nations to see that development has taken time. And China's development is no exception.<sup>17</sup>

Of course, concerns about global climate change have transformed the conversation about environmental quality. When Britain, the United States, and other developed nations were industrializing, pollution was largely seen as a local issue. China's economic development is situated in a different context because of the massive size of its industrial efforts, the large amount of pollution emitted, and the point in history at which they are moving through the heavy industry process of development. The focus now is on the global nature of the threat: that China's pollution could degrade environmental quality for the global population.<sup>18</sup>

### **Conclusion**

China tried democracy, monarchy, and communism in attempts to industrialize, but failed. However, it found success when it followed a historical sequence rather like Britain's Industrial Revolution. The lesson that emerges is twofold: (1) Economic development is a process with stages—one cannot leapfrog to the final stages without enduring the earlier ones; (2) Expecting mature and sophisticated institutions to emerge from underdeveloped economies is not realistic—they take time to develop

and will sometimes need government support. The economic transformation occurring in China has improved the lives of hundreds of millions of people, and it is still in process. Yet perceptions of China's dramatic rise are sometimes skewed by China's massive population. While the Chinese economy is the second largest in the world, on a per capita basis, its people (on average) enjoy a standard of living ranked 113th.<sup>19</sup> And as its massive economy continues to develop and grow, the world is applying pressure for more rapid social and environmental change. As China continues to develop economically, some see its rise as revolutionary, while others see a historical connection that reminds them of Mark Twain's quip: "History does not repeat itself, but it often rhymes." 🌍

#### Notes

- Using GDP at purchasing power parity (PPP), China is already the largest economy. See Central Intelligence Agency, *The World Factbook*: [www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html#ch](http://www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html#ch).
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- The figure is reproduced from Wen and Fortier, "The Visible Hand: The Role of Government in China's Long-Awaited Industrial Revolution," available at <https://research.stlouisfed.org/publications/review/2016-09-12/the-visible-hand-the-role-of-government-in-chinas-long-awaited-industrial-revolution.pdf>.
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- In fact, China just played a leadership role in joining hands with the U.S. by ratifying the Paris climate change agreement at the G20 meeting in Hangzhou, even though China is still a developing nation in terms of per capita income and standard of living. See Roberta Rampton and Nathaniel Taplin, "U.S., China Ratify Paris Climate Deal, Setting Stage for G20," (Sep 4, 2016), [www.reuters.com/article/us-g20-china-idUSKCN119017](http://www.reuters.com/article/us-g20-china-idUSKCN119017).
- Using GDP per capita (at purchasing power parity, PPP), estimated 2015. See Central Intelligence Agency, *The World Factbook*: [www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html#ch](http://www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html#ch).

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