Global macro matters

# SOE reforms—China's path to higher productivity

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## China's future growth rests on an uncertain foundation

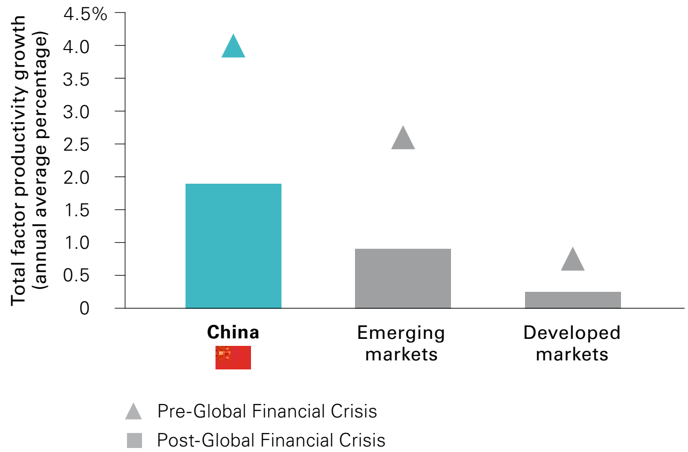
China, along with the rest of the world, has experienced a long-running decline in productivity growth—a decline that accelerated after the Global Financial Crisis (**Figure 1**). In fact, the country's total factor productivity is at nearly its lowest level in 20 years, as the impact of past reform efforts and the catch-up effect fade. Despite clear signs of stabilization this year in China's economy, many challenges—such as the decreasing efficiencies of state-owned enterprises (SOEs) and diminishing returns to credit—continue to drag down productivity growth.

Unlike a developed economy, China still has significant room to lift productivity through market-driven reforms while fostering innovation. The key will be to relax government control so as to allow market forces to play a bigger role in the economy and address the inefficiencies created by the SOEs. Whether China can successfully transition to a productivity-led growth model will ultimately shape its future as a global growth driver or the next Japan.

## Near-term risks are muted, but threats to long-term prosperity are growing

Following the sharp decline in growth at the end of 2015, China implemented demand-side policies to reinvigorate growth. Much of this effort relied on "old economy" levers, such as loosening credit to fund SOE investment, housing, and infrastructure spending. Although these cyclical policies have stabilized near-term growth, financial risk has increased as already high debt continues to grow and the marginal return of such policies shrinks.[1] Before the Global Financial Crisis, for example, a 1.5 percentage point growth in credit produced 1 percentage point of growth in China's gross domestic product. Today, 3.5 percentage points of credit growth would be required to produce the same amount of GDP growth (**Figure 2**).

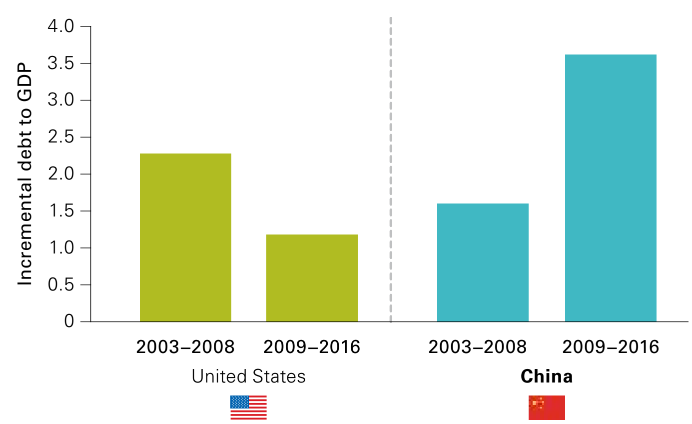
Figure 1. Total factor productivity has declined substantially




**Notes:** Data periods cover January 1, 2003, through December 31, 2007, for pre-Global Financial Crisis and January 1, 2008, through December 31, 2016, for post-Global Financial Crisis. Developed- and emerging-market group totals were estimated as a purchasing power parity GDP-weighted average of individual countries.

**Sources:** Vanguard calculations, based on The Conference Board Total Economy Database.

Figure 2. China's credit is less productive today




**Notes:** Data periods cover March 1, 2003, through December 31, 2008, and March 1, 2009, through September 30, 2016. The incremental debt-to-output ratio measures how many dollars of new debt are required to create a dollar of GDP growth.

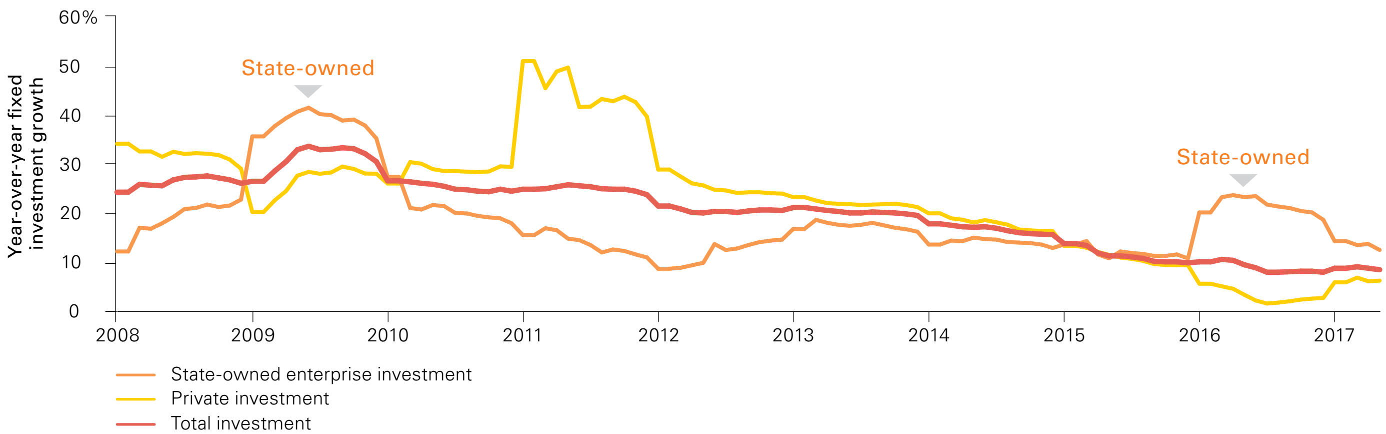
**Sources:** Vanguard calculations, based on data from the Bureau of Economic Analysis, the Bank for International Settlements, CEIC, and the People's Bank of China.

1 Total debt is estimated to be near 260% of GDP.

The problem lies mainly in the government's reluctance to reduce its heavy intervention in the economy—intervention that has led credit and investment flows to respond more to short-term output targets than to market signals. Much of the state's involvement has been facilitated by the SOEs that enjoy preferential treatment, such as easy access to financing, favorable regulatory treatment, and implicit state guarantees, due to their dual function of achieving the state's goals and being a market participant. An example can be seen in the infrastructure and heavy industrial sectors such as coal and metals, which consist largely of SOEs **(Figure 3b)**. State investment in these sectors surged to offset the slump in private investment growth that stemmed from weak global and private-sector demand in 2008 and 2016 **(Figure 3a)**.

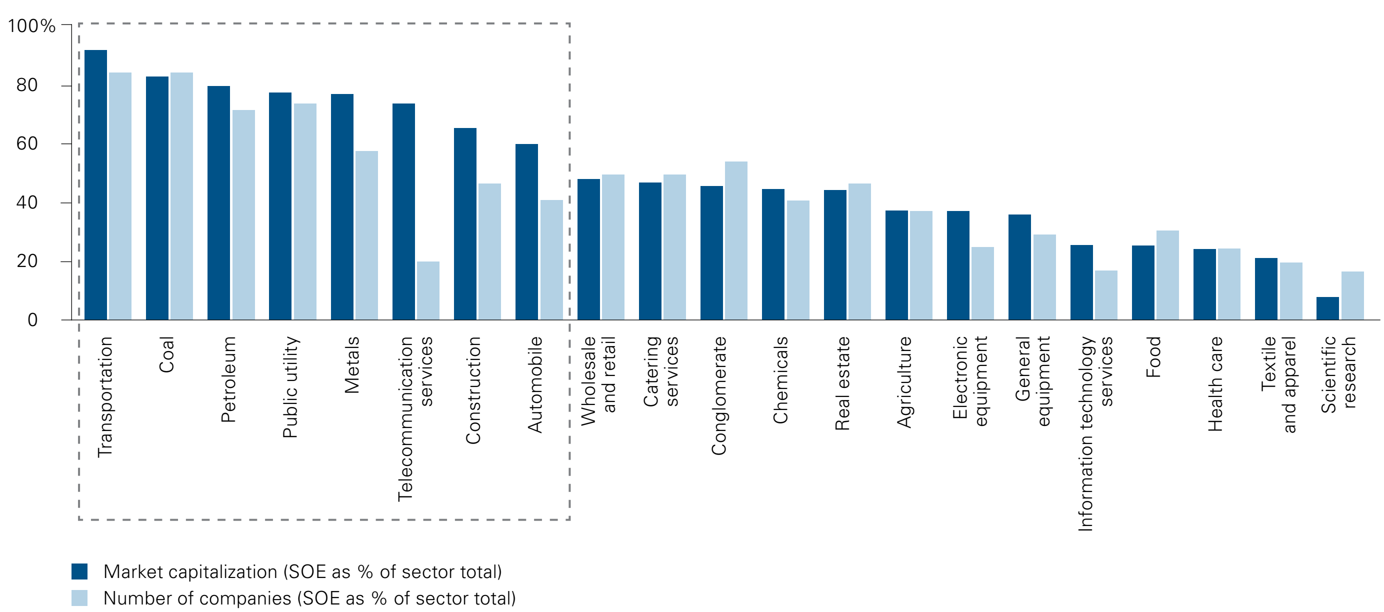
**Figure 3. SOEs play a critical role in the Chinese economy**

a. SOEs are a convenient policy tool for the government during periods of stress…




**Note:** Data cover January 1, 2008, through May 31, 2017.
**Sources:** Vanguard calculations, based on data from CEIC, the National Bureau of Statistics, the People's Bank of China, and Wind.

b. … and they continue to dominate in specific sectors




**Sources:** Vanguard calculations, based on data from CEIC, the National Bureau of Statistics, the People's Bank of China, and Wind.

Although SOEs have helped ensure near-term economic stability by cushioning against downside economic risk, providing public services, and maintaining social stability, the government intervention has come at the cost of efficiency in the form of heavy bureaucracy, a lack of market incentive, and poor corporate governance. This explains why, despite SOEs' receiving a disproportionate share of China's financial resources, their liabilities have reached nearly 100% of GDP, accounting for about 60% of total corporate debt, and the percentage of loss-making companies in the state-owned sector is three times that in the private sector. Loss-making firms represent only 9% of private companies versus 28% of SOEs.

With debt becoming less productive, there are reasons to be concerned about China's financial stability. We believe that a tipping point is unlikely in the near term and that the debt-fueled growth model could continue for some time—as long as the government maintains capital controls, the central bank injects liquidity when needed, and banks keep supporting debt rollover of the SOEs. Indeed, the heavy industrial sector, despite being the most indebted industry, has not yet contributed meaningfully to nonperforming loans in the banking sector. Compared with 2016, when the economy was fragile, today's conditions would make it easier to shut nonviable or "zombie" companies. The government is unlikely to take aggressive steps, however, because of the 19th National Party Congress in autumn 2017.[2] China will continue to provide support to the nonviable or "zombie" SOEs through debt-restructuring policies with subsidized bank loans, debt-equity swap plans, and mergers with more profitable enterprises.

## Reforms to increase market participation should be prioritized

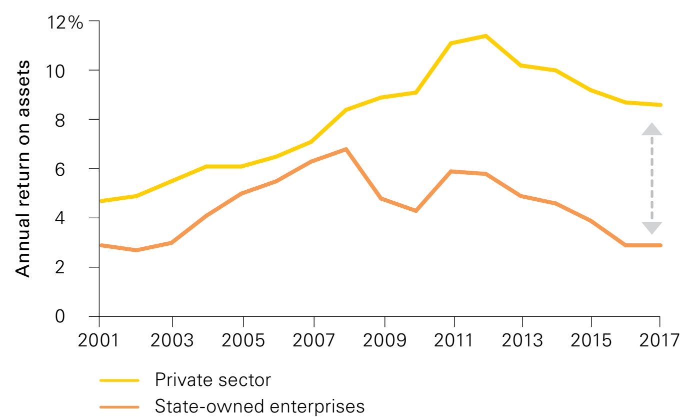
Although policymakers recognize the risk of ever-growing financial leverage, they have struggled between slowing credit growth and maintaining stable economic growth. We believe that correcting distortions in resource allocation and instituting necessary market reforms have proven much more difficult; that is why our worry lies instead in the slowdown in China's productivity growth over the long run. Some progress has been made since the 1990s, after the government pushed for market-oriented reforms to reduce the role of the state-owned sector in the economy. However, SOEs still account for nearly one-third of total value-added and fixed investment in the economy, and remaining SOEs have become larger and more influential.

Undertaking market reform will be important in order for China to fully address its efficiency challenges. The government should focus on reducing its interference in the economy by resuming the SOE privatization process and introducing greater market competition by reducing private-sector regulation and state protection of SOEs. Given SOEs' significance in the state's socialist system, a practical approach to privatization would be to advance the mixed-ownership reforms outlined in the 2013 Third Plenum: State monopolies or oligopolies in competitive industries should be broken up and the barriers to entry lowered. Corporate governance reforms should be enacted to limit the government's administrative intervention. Together, these policies would bolster SOE efficiency by increasing market disciplines and encouraging further diversification of the SOE ownership structure through share subscriptions, equity stake purchases, and convertible bonds.

Policymakers should also seek to limit the preferential treatment of the state-owned sector and reduce regulation for the private sector to encourage a more equal playing field for all market participants. For example, even though private investors have been permitted since 2005 to establish airlines, to date that sector has been dominated by state oligopolies, because the government sets a floor on airline ticket prices. This has forced many private companies out of the airline market.

Despite the challenges in certain sectors, the broader private economy has flourished. Today, private companies contribute more to employment than the SOEs, accounting for 75% of all jobs and two-thirds of GDP. Private companies are also much more productive than the state sector, as illustrated by the return on assets. Although ROA has been higher for some time for the private sector than for SOEs, the gap has widened, especially since the Global Financial Crisis (**Figure 4**). The ROA for private companies today is more than double that of the state-owned sector.

**Figure 4. The gap between asset returns in the state-owned and private sectors is widening**




**Note:** Data cover December 31, 2000, through December 31, 2016.

**Sources:** Vanguard calculations, based on data from CEIC and the National Bureau of Statistics.

2 The reform schedule will ultimately depend on the ability of President Xi Jinping to consolidate power at both the central and local government levels.

Although radical reforms are unlikely this year given the lead-up to the National Party Congress, China will need a more efficient SOE sector and greater private-sector participation to address the growing supply bottlenecks created by an aging population and increased consumption, especially in many service sectors. A vibrant private sector will be the most significant force driving China's transition to a higher-income economy.

## The final necessary ingredient is innovation

Along with market reform, China should continue to promote innovation as the last pillar to revive productivity. China has taken great strides toward innovation and entrepreneurism, underscoring its transition toward domestic consumption, services, and technology. By 2015, China accounted for more than 1 million patent submissions, far above that of any developed country (**Figure 5**). The top five Chinese brands are innovative tech companies, in sharp contrast to five years ago, when the top brands were predominantly SOE banks and heavy industrial manufacturers.

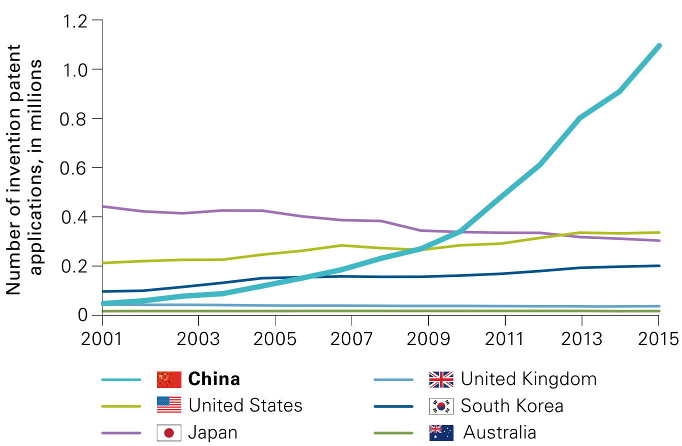
With the help of expansion in higher education and deepening of human capital, Chinese tech companies are no longer relying solely on imitating the U.S. technology titans. The growth in China's college enrollment (24%) and percentage of college graduates (19%) dwarfs the growth in the United States (8% and 5%).[3]

Take, for example, WeChat. What started as an imitation of U.S.-based WhatsApp has evolved into a one-stop online lifestyle services platform. Users can pay bills, send virtual "red envelopes," track fitness goals, hail a cab, and shop online, all in a single application. As of 2016, the value of mobile payments in China surpassed the U.S. figure by nearly 50%.

E-commerce is also gaining traction more broadly; the number of Chinese online shoppers has tripled since 2010 (to more than 400 million), as has the amount of money the average consumer spends online. One could easily argue that there is still further opportunity for Chinese e-commerce retailers, as half of China is still offline (**Figure 6**). A recent United Nations report estimates that China's GDP could increase by $236 billion by 2025 as a result of payments on messaging and e-commerce platforms, equating to 1%–2% GDP growth from these platforms alone.[4]

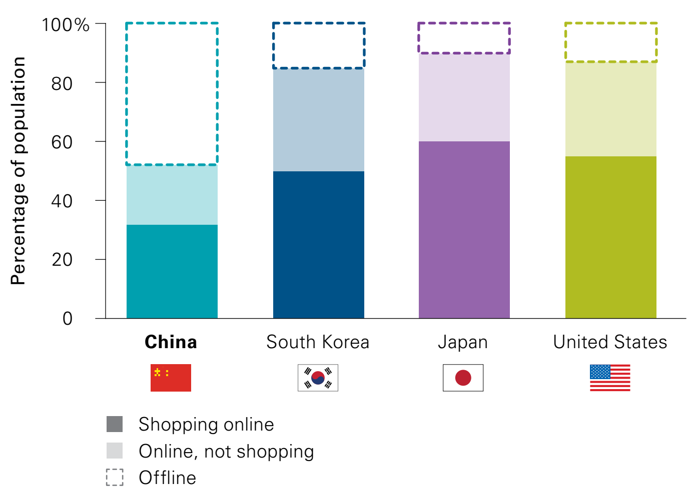
Further administrative, fiscal, financial, capital market, and other factor market reforms could also help foster innovation. The development of a risk capital market, such as venture capital, could support the funding for entrepreneurs and small businesses. Similarly, China should continue to promote education to deepen human capital and direct more investment to research and development, via potential tax incentives.

Figure 5. Innovation has taken off in China




**Note:** Data cover January 1, 2001, through December 31, 2015.
**Sources:** Vanguard calculations, based on data from WIPO Statistics.

Figure 6. Opportunity exists with half of China's population still offline




**Note:** Data are as of December 31, 2016.
**Sources:** Vanguard calculations, based on data from the China Internet Network Information Center and Statista.

3 Growth is measured by the percentage change in the number of college graduates and in college enrollment from 2011 to 2016 in the United States and from 2010 to 2015 in China.
4 Zennon Kapron and Michelle Meertens, *Social Networks, e-Commerce Platforms, and the Growth of Digital Payment Ecosystems in China: What It Means for Other Countries.* The United Nations Better than Cash Alliance, April 2017.

In addition, continuing with market reforms will increase competition, leading to more innovation. Other reforms could come in the form of stronger intellectual-property regulation and a simplifying of the initial public offering process. The new business models developed as part of the consumer-led digital revolution will serve to support China's goal of creating more sustainable growth, while providing some cushion as the "old" economy resumes its downward trend.

The path to unleash China's next phase of productivity growth will depend on China's ability to implement SOE reform, support greater private-sector participation, and encourage innovation. Together, these three actions will lay the foundation for market competition, enabling the most efficient enterprises to succeed more quickly and creating information transparency to facilitate better investment and resource allocation decisions. Although tackling these will be challenging—especially SOE reforms, given that the sector is deeply embedded in Chinese society—they will be necessary to ensure that the country maintains a high growth path of 5%–6%. To maintain this level of growth, total factor productivity will need to pick up to about 3% to combat the slowdown in capital stock growth and a shrinking labor force during China's transition.[5] The path is clear; the policymaking is less so. But the social and political imperatives to produce faster growth and greater prosperity will create a sense of urgency for the nation's leaders.

5 Qian Wang, Jessica Wu, and Zoe Odenwalder, 2017. *Navigating the Transition: China's Future at a Crossroads*. Valley Forge, Pa.; The Vanguard Group.

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