

Harnessing global capital to drive the next phase of China's growth

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In this report, we highlight some of the challenges China faces as it transitions away from the manufacturing export-led growth strategy that has served it well over the past three and a half decades. We identify two key areas of reform that can help to catalyze the next phase of China's development: increased receptivity to foreign investment in selected sectors of the economy, and development of a deeper and more robust financial system. Each can reinforce the impact of the other, and help set the stage for another generation of strong economic performance.

China has reached a key transition point

An extremely successful economic development strategy, based on the use of low-cost labor to drive globally competitive export industries, has lost some momentum. This is due both to China's success to date (China already has a large share of global exports and has itself become a significant share of world GDP) and weak foreign demand growth in the aftermath of the global financial crisis. Debt-driven investment has underpinned recent growth, but policymakers recognize the risks of continuing on this course and have begun to rein in excesses. For China to post another generation of strong growth, it will need to shift the focus of its economy in several ways: from exports to domestic demand, manufacturing to services, investment to consumption, and from credit-driven growth to equity-financed growth.

New sources of investment and technology can help

China has attracted substantial foreign investment over the years, despite considerable restrictions in many sectors of the economy. Our review of the drivers of US outward FDI, complemented by a proprietary survey of our equity analysts in the US and China, suggests significant upside potential for US FDI into China, particularly in the service sectors that China needs to drive its future development. Investment treaties such as the proposed US-China bilateral investment treaty (BIT) currently under negotiation are potential vehicles for unlocking this incremental investment.

Financial reform can facilitate more efficient growth

Reforming China's financial markets could help shift investment away from overcapacity in heavy industries and towards more dynamic sectors of the economy, including services. Greater credit differentiation based on underlying business fundamentals - rather than implicit government support - would help direct capital towards more productive investments. More efficient investment, along with a greater share of equity investment, could help to mitigate the rapid buildup in debt observed since the global financial crisis (GFC). Together with improvements to the investment regime, financial market development could provide significant support to investment and productivity growth.

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Abbreviations used in this report: **BIT:** Bilateral investment treaty; **CBRC:** China Banking Regulatory Commission; **FAI:** Fixed asset investment; **FDI:** Foreign direct investment; **GFC:** Global financial crisis; **LGFV:** Local government financing vehicle; **MOF:** Ministry of Finance; **NDRC:** National Development & Reform Commission; **NPL:** Non-performing loan; **PBOC:** People’s Bank of China; **QFII:** Qualified foreign institutional investor; **SOE:** State-owned enterprise; **TSF:** Total Social Financing; **WTO:** World Trade Organization.

Note on authorship: This report has been jointly authored by the Asia economics team, the Asia credit strategy team and the Global Markets Institute team. Part 1 is principally the work of the Asia economics team. Part 2 is principally the work of the Global Markets Institute team. Part 3 is principally the work of the Asia credit strategy team, with significant contributions from our Asia economists.

Part 1: China looks ahead to its next generation of economic development

Over the past three and a half decades China has become the fastest-developing economy in world history. Agricultural reforms and rapid expansion of export-oriented manufacturing generated growth of more than 9% per year on average, and moved China into the front rank of world economies. But now the export impulse is fading, potential growth is slowing, and stark imbalances have emerged. China's new leadership recognizes these challenges and has embarked on an ambitious reform agenda, but much remains to be done.

China emerges as the world's workshop

Since Deng Xiaoping became the "paramount leader" of China in 1978, the country has followed a development path pioneered by other East Asian economies such as Japan, Korea, and Taiwan. The notable differences are that China has done so at an even faster speed and on a much bigger scale.

China's era of rapid development began with reforms in the agricultural sector. Beginning in the late 1970s, and implemented nationwide starting in 1981, the government shifted from collective production to a "household responsibility system," whereby households sold a fixed portion of output to the government at official prices (which themselves had been increased) and could sell any surplus at market prices. The reforms drastically improved individual incentives and output. Rice output rose more than 50% from the mid-1970s to 1990, and wheat and corn production more than doubled, while the overall population grew by just under one-quarter (Exhibit 1). Increased output greatly improved living standards, and allowed households to both consume and save more. Improved agricultural productivity alone contributed more than two percentage points annually to Chinese economic growth in the first decade after reforms, not to mention the large increases in labor input that occurred simultaneously.¹

As in other rapidly developing East Asian economies, household savings were channeled to targeted industries, with a focus on export-oriented sectors. Households received a low return on their savings given caps on bank deposit rates (which were often negative in real terms) and a lack of investment alternatives (the capital account was closed and private ownership of housing was not common until the late 1990s). Banks directed financing to state-owned enterprises (SOEs) in priority sectors. With the effective subsidy from households, corporate borrowers paid interest rates that were often below nominal GDP growth.

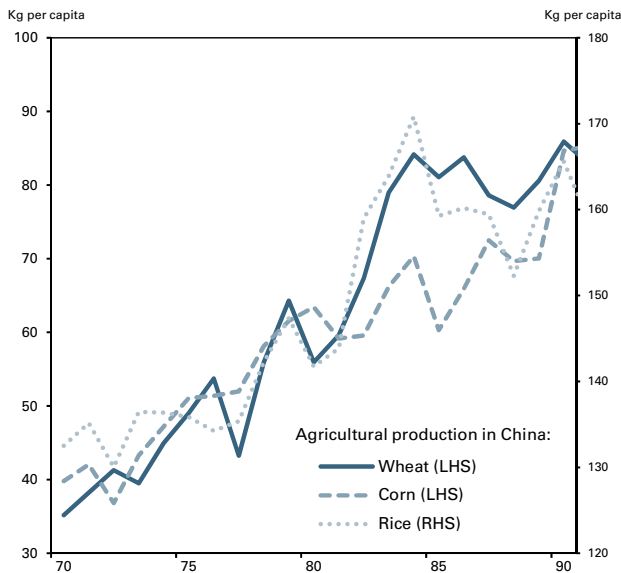
The decade before the global financial crisis was a particularly rapid period of development, especially during Jiang Zemin's presidency from 1993-2003. As vice premier beginning in 1993 and premier from 1998-2003, Zhu Rongji pushed an aggressive economic reform agenda. This began with measures in the mid-1990s to increase competition between state-owned enterprises, winnow out sub-scale firms, and partly privatize ownership. These efforts led to improved productivity, albeit at the cost of large job losses in the SOE sector later in the decade (estimated in the tens of millions). Later, a new entity (the State-Owned Assets Supervision and Administration Commission of the State Council, or SASAC) was formed to manage the largest firms.²

¹ See Zhu, "Understanding China's Growth: Past, Present, and Future," *Journal of Economic Perspectives* 26:4, Fall 2012, pp. 103-124.

² See, for example, Studwell, *How Asia Works*. Profile Books, 2013.

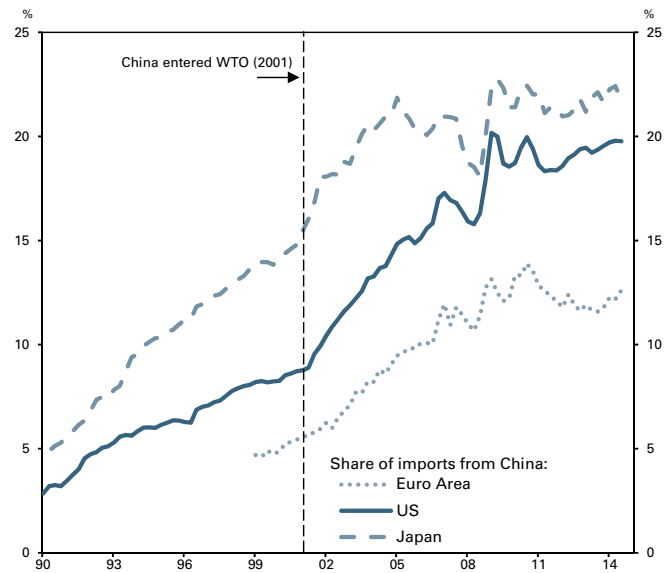
A centerpiece of the reform drive was China’s entry into the World Trade Organization in 2001. The consequent reduction in trade barriers, combined with falling transportation and communication costs and China’s labor cost advantages, instigated a significant relocation of global manufacturing toward China (Exhibit 2). The economy accelerated from around 7.5% growth in the late 1990s to around 10% in 2003, with efficiency improvements (total factor productivity) accounting for more than half of the growth.³ Meanwhile, the debt-to-GDP ratio was broadly stable until the GFC.

Exhibit 1: Agricultural reforms led to surging output...



Source: China NBS, Haver Analytics.

Exhibit 2: ...while manufacturing reforms led to rising export shares



Source: Haver Analytics.

Over the past thirty years, China's growth performance has exceeded even Japan's and Korea's, previously the prime examples of rapid economic development. What Japan and Korea did at comparable stages of development, China did to a greater extreme--generating similarly rapid export growth but leveraging a far greater population (about a billion people in 1980, 12 times the Japanese population and 52 times the Korean population when those countries began their rapid development after World War II), engineering higher investment ratios (48%, versus peaks in the high 30s in Japan and Korea respectively), and driving what at times was even faster economic growth (Exhibit 3).

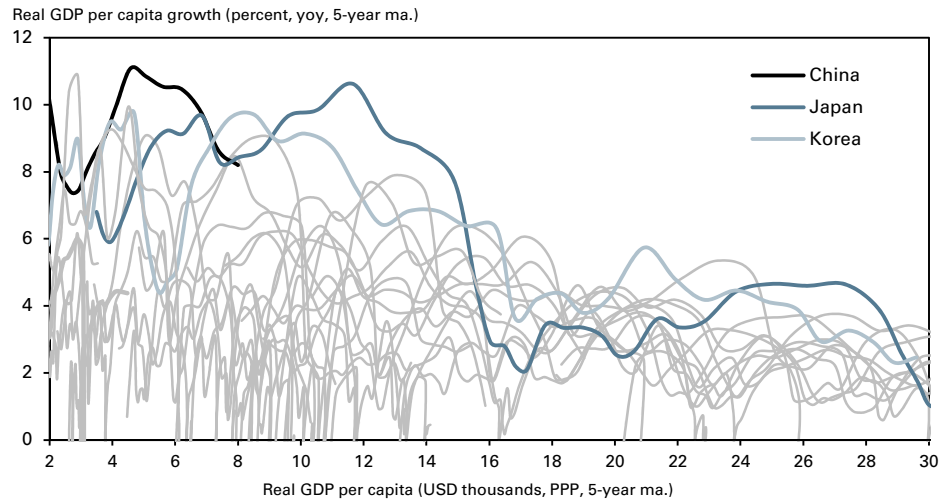
China's population has been roughly a fifth of humanity for a long time, but it has only recently developed a share of economic and market activity that is reflective of its size. From a billion-citizen nation largely disconnected from the world economy in 1980, China's exports, growth, and financial markets have rapidly gained in importance over the past three and a half decades (Exhibit 4). However, there is still more “catching up” to do, and in all likelihood, its share of global economic and financial market activity will grow considerably further in coming decades.

Even in 2014, after a significant deceleration after the global financial crisis, China's reported real GDP growth of 7.4% ranks it among fastest-growing economies in world.

³ See Tilton and Ursua, “Exploring the limits of growth in emerging Asia,” Goldman Sachs Economics Research (August 2014).

Given its size, it has contributed considerably more to world GDP growth than any other country (Exhibit 5). And China has accounted for the biggest reduction in global poverty; since 1990, more than 600 million Chinese have moved out of poverty, representing two-thirds of global poverty reduction over this period.⁴

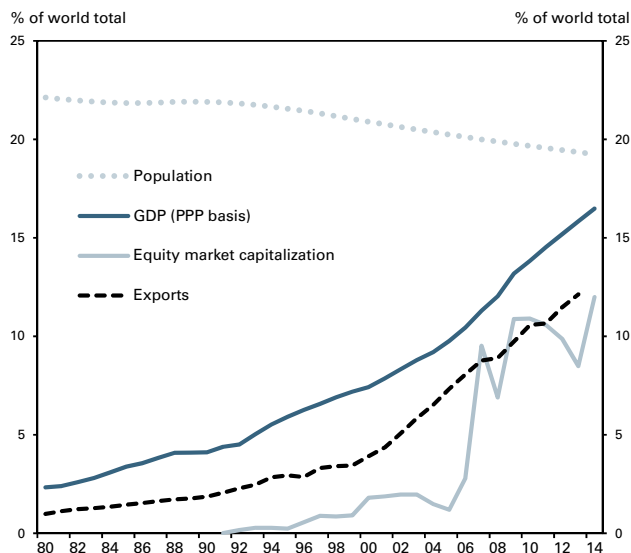
Exhibit 3: China has marked out new frontiers in terms of rapid economic development
Growth pace versus per-capita-income, 39 economies since 1955



Note: Gray lines indicate other countries' development paths.
Source: IMF, Haver Analytics, Goldman Sachs Global Investment Research.

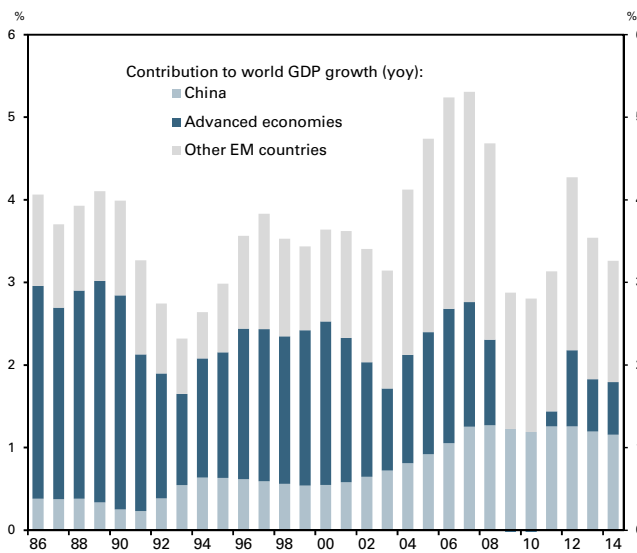
⁴ This references United Nations data; the UN poverty line is USD1.25 per day in purchasing-power parity terms.

Exhibit 4: China’s economic impact is rapidly catching up to its population weight...
China share of global total



Source: World Bank, IMF, United Nations, Bloomberg, Goldman Sachs Global Investment Research.

Exhibit 5: ...making it the largest single contributor to global growth
Share of PPP-weighted global growth



Source: IMF, Goldman Sachs Global Investment Research.

Diminishing returns to scale

After three and a half decades of rapid growth, China is now facing many challenges, some simply because of its vast scale. After a generation of transformation in the economy, China is reaching the natural limits of the manufacturing export-led growth model that has served it well for so long.

1. The contribution of exports to growth has diminished sharply in recent years.

There are several reasons for this. First and most importantly, export market shares in developed markets, which accounted for roughly half of China's export growth in the 2000s, have flattened (refer back to Exhibit 2). Substantial offshoring from developed markets, in conjunction with labor costs outpacing those elsewhere and currency appreciation, have closed a significant part of the (productivity-adjusted) labor cost gap.⁵ To be sure, further offshoring may occur in response to technological, policy, and other shifts, as well as China's own market development, but the heyday of cost-oriented relocation of manufacturing industries from major developed markets is very likely over.

The second reason why the contribution of exports has diminished is that China's customers are growing more slowly. The world ex-China was growing about 3.7% in the decade before the global financial crisis; over the past year that pace was only 2.5%. Together with the flattening in market shares, this has resulted in a substantial slowdown in export growth (Exhibit 6).

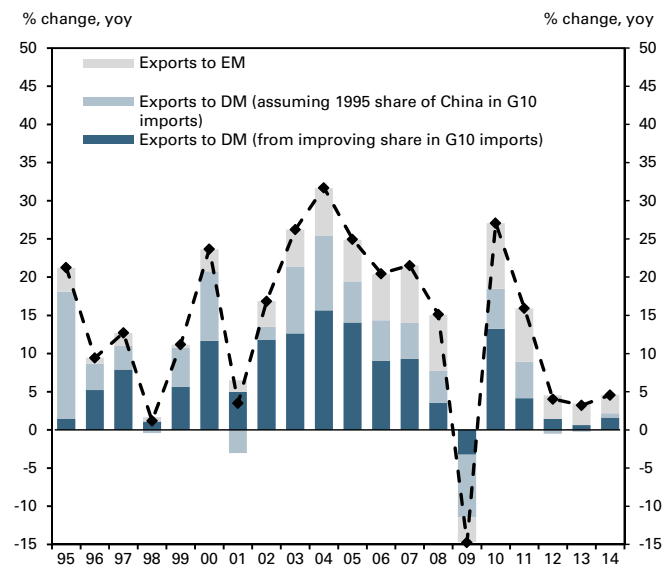
The final reason for a declining contribution of exports: China has grown much faster than the rest of the world so export markets are simply "worth less" in terms of Chinese GDP.⁶

⁵ See Tilton and Sequeira, "Export-led growth in Asia: Better short-term, challenged long-term," Goldman Sachs Economics Research (February 2014).

⁶ See Tang, "When the world is not enough: China's expanding need for sustainable internal growth," Goldman Sachs Economics Research (September 2013).

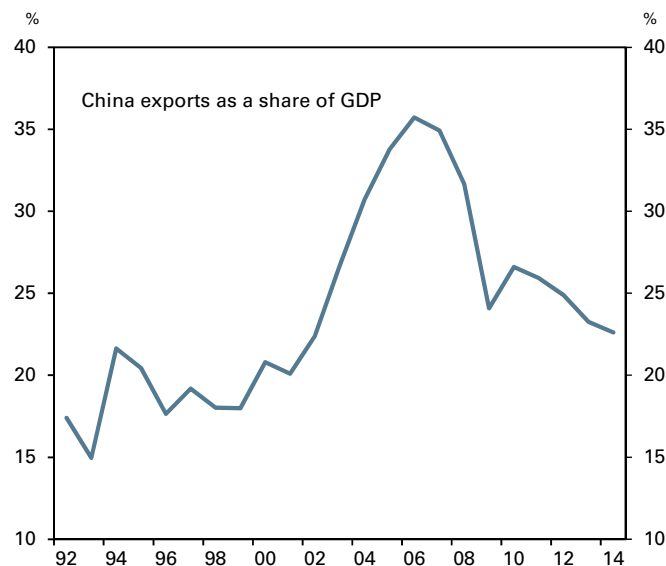
To put this in perspective, the rest of the world was roughly 28 times China's GDP at market exchange rates in 1985, 12 times China's in 2000, and only 5 times as big now. Put differently, domestic demand is becoming more important (Exhibit 7).

Exhibit 6: Export growth has slowed sharply...
Chinese export growth and its composition



Source: Haver Analytics, Goldman Sachs Global Investment Research.

Exhibit 7: ...and the economy is becoming more domestically-driven
China export to GDP ratio

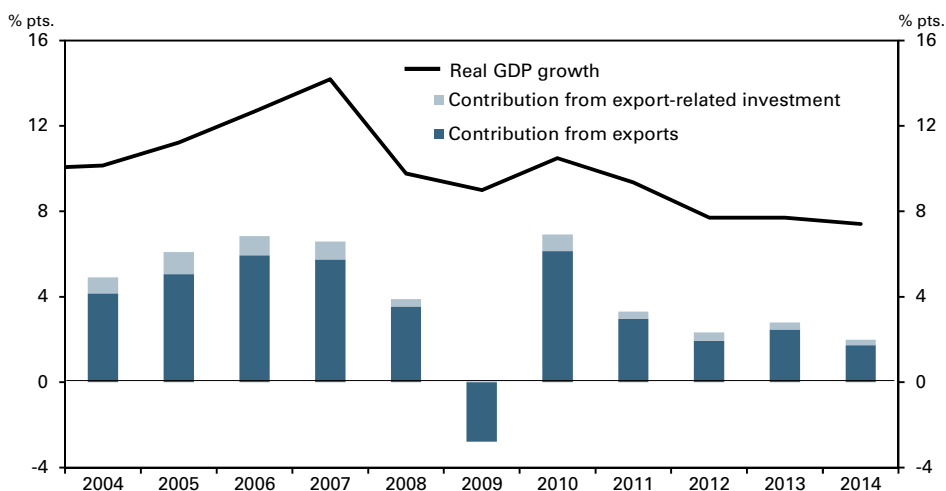


Source: National Bureau of Statistics of China, China Customs, Goldman Sachs Global Investment Research.

Together, all of these forces mean a considerably diminished boost to growth from exports. By our estimation, the direct contribution from the export sector to real GDP growth was 6-7pp before and immediately after the GFC, but has faded to roughly 2-3pp over the past few years (see Exhibit 8). We estimate this contribution by adding together the contribution of real export growth (net of imports for processing) and of investment in export-related manufacturing facilities (FAI in manufacturing, multiplied by the share of exports in goods output, and adjusted for the ratio between the GDP definition of investment and the FAI definition). Note that these figures should be viewed as a lower bound for the overall contribution of the export sector to the Chinese economy, as we make no attempt to account for indirect effects or spillovers (e.g. higher household income and consumption resulting from greater employment in export industries), which are likely significant. Because of China's size, and to a lesser degree because of weak growth in developed markets, the export engine seems to be fading at an earlier stage of development than it did in other emerging Asian economies.

Exhibit 8: Diminishing boost from manufacturing exports to growth

Contribution of exports and export-related investment to real GDP growth



Note: "Export-related investment" is defined as manufacturing FAI, adjusted for the GFCF/FAI ratio, and multiplied by the share of goods exports in total goods production. Export contribution net of processing imports.
 Source: National Bureau of Statistics of China, Goldman Sachs Global Investment Research.

2. In part because of a fading export boost, potential growth is slowing. Along with many other analysts, we believe the potential (or "trend") growth of the Chinese economy is slowing. The fading export boost is an important reason for this, though not the only one. Each element of the "Solow decomposition" of GDP growth into contributions from labor, capital, and total factor productivity is likely to see slower growth in coming years:

- **Peaking labor force.** As has been noted by many observers, China is approaching the demographic transition at lower per capita income than regional peers, with the risk that it "gets old before it gets rich" (Exhibit 9). It appears that the "Lewis turning point"—the point at which surplus agricultural labor has been used up and urban real wage growth begins to accelerate—will be reached soon, if it has not already.⁷
- **Capital input likely to decelerate.** China's investment rate has been very high, even by the standards of rapidly growing East Asian economies, with the investment-to-GDP ratio approaching 50% in recent years (versus a peak in the high 30% range in Japan and Korea). Given signs of overcapacity and low profitability in many investment-intensive sectors (discussed further below), it seems very likely that this investment rate will slow somewhat. Indeed, the widely followed fixed asset investment (FAI) series has slowed to roughly 15% yoy from above 20% yoy just a few years ago, though this overstates the deceleration in new capital formation.⁸ Note that overinvestment in certain sectors or regions

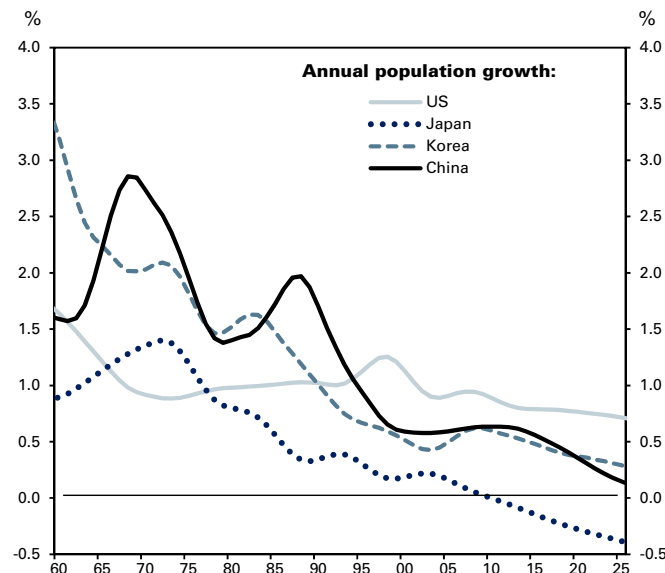
⁷ See Lee, Baba and Tanaka, "China vs. 1970s Japan: Tipping point in a domestic-demand based economy," Goldman Sachs Economics Research (September 2012) and Das and N'Diaye, "Chronicle of a Decline Foretold: Has China reached the Lewis Turning Point?" IMF Working Paper (January 2013).

⁸ FAI is not precisely comparable to investment measured as an expenditure component of GDP (gross fixed capital formation or GFCF). FAI includes purchases of existing assets and land, not just new capital formation. We estimate real GFCF to have grown 8.4% in 2014, one percentage point lower than in 2010.

should not be taken as evidence that the country lacks for potential productive investments more generally.⁹

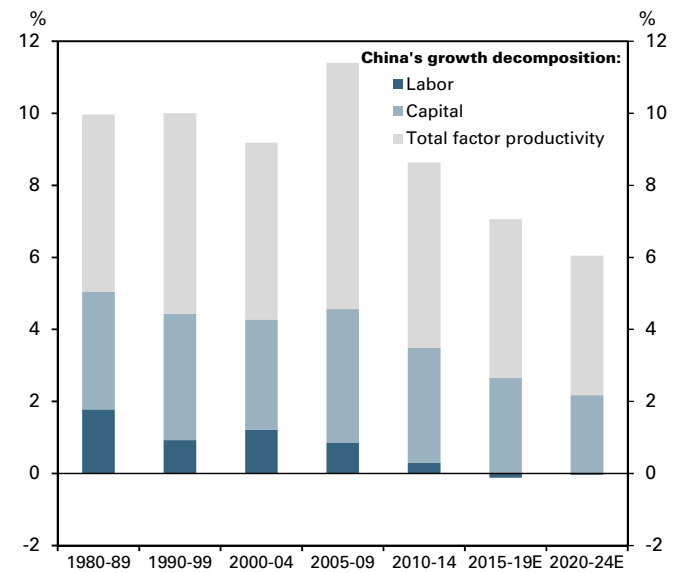
- Total factor productivity growth slowing.** The slowdown of manufacturing—a sector that typically features both a relatively high level and growth rate of productivity—will weigh on economy-wide productivity growth (Exhibit 10). However, China still has substantial productivity growth ahead of it, given that in many sectors it remains relatively far from the world technology frontier.¹⁰

Exhibit 9: An ongoing demographic transition...



Source: United Nations.

Exhibit 10: ...will diminish labor’s contribution to growth



Source: Goldman Sachs Global Investment Research

3. Signs of unsustainability have emerged. In part because of China's growth strategy, and in part because of the challenges noted above, several imbalances have developed.

- China’s investment-to-GDP ratio has been exceptionally high in a historical and international context, and a number of heavy industries are suffering from overcapacity (Exhibit 11), despite continued heavy domestic infrastructure investment and the world’s largest trade surplus. This has led to deflationary pressures, especially in upstream industries, and reduced profitability. There is also significant overcapacity in the property sector—we recently estimated a 20% vacancy rate for modern (“commodity”) urban housing.¹¹ While institutional reasons partly explain this, construction will clearly need to slow further in coming years, posing an important headwind for growth.
- In conjunction with high investment, there has been a rapid debt buildup since the global financial crisis. China's debt-to-GDP ratio is well above emerging markets

⁹ See Tang, “Investment efficiency in China: What does provincial differentiation suggest,” Goldman Sachs Economics Research (June 2013).

¹⁰ See Tilton and Ursua, “Exploring the limits of growth in emerging Asia,” Goldman Sachs Economics Research (August 2014) for details of our potential growth analysis that generates the numbers underlying Exhibit 10.

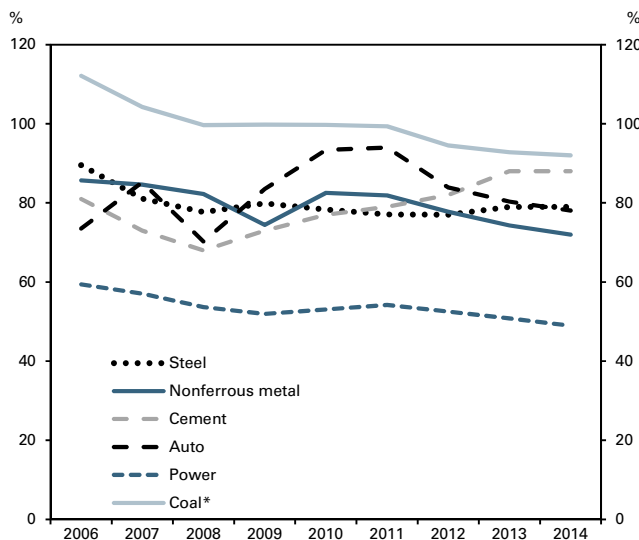
¹¹ See Tilton, Shan, Wang and Baba, “China’s housing boom in international context,” Goldman Sachs Economics Research (October 2014).

at similar stages of development. The increase in this ratio over the past five years is in the 97th percentile of all debt buildups worldwide over the past half-century, and in absolute terms the debt buildup has been the largest ever over a comparable time period (Exhibit 12).¹²

- Environmental degradation and resource challenges are further evidence of unsustainability. The Ministry of Environmental Protection released a survey showing 81% of interviewees being “very worried” about China’s overall environmental condition (*China News*, Feb 20, 2014), with air quality a particular concern.¹³ An MIT study found that air pollution cost the Chinese economy more than 1% of GDP annually.¹⁴ More broadly, the World Bank estimated “environmental and natural resource degradation and depletion” costs at 9% of annual national income.¹⁵

Exhibit 11: Significant overcapacity in upstream industries

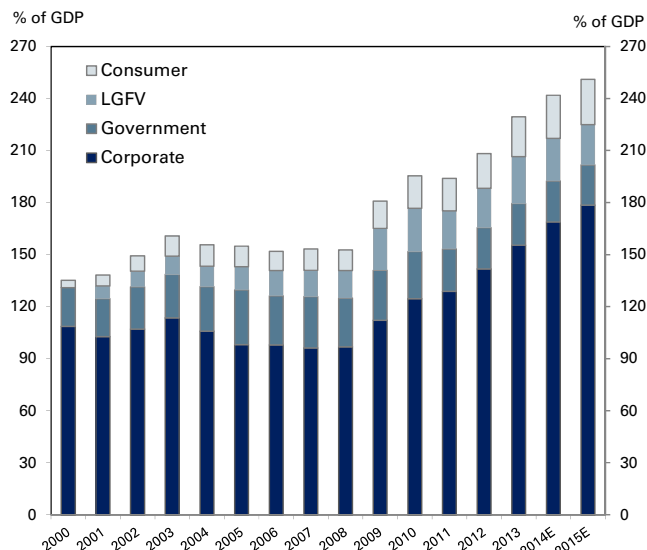
Capacity utilization rates in selected sectors



*Coal industry utilization rate shown as over 100% in past years because many coal mines’ production was over their respective designed production capacity; Source: Goldman Sachs Global Investment Research.

Exhibit 12: A rapid debt buildup

Debt-to-GDP ratio by sector



Note: financial institution credit is excluded and only half of entrust loan amounts are included due to double counting Sources: PBOC, China Bond Online, Gao Hua Securities Research.

¹² See Tilton, Ho, Tang, et. al., “Untangling China’s credit conundrum: Deleveraging after a credit boom requires years of adjustment,” Goldman Sachs Economics Research (January 2015).

¹³ See also Manley, Simons, Nguyen and Horie, “China’s Growing Pains – Falling CROCI masks emerging leaders and selected value plays,” Goldman Sachs Equity Research (June 2014).

¹⁴ Matus et al., “Health damages from air pollution in China,” *Global Environmental Change* 22(1): pp. 55-66 (2012).

¹⁵ The World Bank and Development Research Center of China’s State Council, *China 2030: Building a Modern, Harmonious, and Creative Society* (2013) and The World Bank, *World Development Indicators* (2011).

China has reached a level of per capita income— about \$12,000 in nominal PPP terms—that has often been associated with slowdowns in growth.¹⁶ The so-called “middle-income trap” appears to reflect, among other factors, the diminishing returns from reallocation of low-wage agricultural labor to labor-intensive manufacturing industries that export to global markets. As surplus rural labor is employed and wage levels begin to rise, upgrading of both physical capital (including technological improvement) and human capital (i.e. education and skills training) is necessary for rapid economic growth to continue. Without the benefit of global competitive pressures faced by export-oriented firms, domestic-facing manufacturing and services sectors tend to develop more slowly; many service sectors in particular require different and more proactive regulatory approaches to limit rent-seeking, ensure competition, and foster continued productivity gains.¹⁷

Forging a new path

China's new leadership has embarked on an ambitious reform program to address these challenges. The Third Plenum of the 18th Communist Party, held on November 9-12, 2013, set out more than 300 reform measures across the economy and society. The scope of the reform effort is too broad and multifaceted to cover in its entirety here.¹⁸ From an economic standpoint, however, we can group the key measures into a few main categories, including fiscal reform, financial sector liberalization, sustainable urbanization, and state-owned enterprise reform (Exhibit 13).

As with any developing economy, there are many opportunities and challenges facing policymakers in the years ahead – and these are magnified in scope given China’s size and importance in the world economy. There are sizable uncertainties about how—or even if—China’s economy will transition to the next phase of its development, and these will have global ramifications. Yet at a fundamental level, if the transition is to be a success—if China is to maintain relatively high growth while reining in imbalances and avoiding a crisis—a few key elements are likely to be present:

1. **Faster development of the service (“tertiary”) sector.** The manufacturing sector will continue to be a meaningful driver of growth for many years, though it will gradually become more domestically-oriented as Chinese consumption and investment outpace those in most other parts of the world. But improving service-sector development and productivity will be key for China to move squarely into middle- and upper-middle-income status.
2. **Still-high, but more productive, investment.** We agree with what appears to be a broad consensus that China’s economy will become more consumption-dependent over time. But we expect this transition to be slow, and it’s quite unlikely that a sharp decline in investment would be offset by an equally strong pickup in consumer spending or exports. Thus the goal should be to manage

¹⁶ See The World Bank and Development Research Center of China’s State Council, *China 2030: Building a Modern, Harmonious, and Creative Society* (2013) and Eichengreen, Park and Shin, “Growth Slowdowns Redux: New Evidence on the Middle-Income Trap,” NBER Working Paper No. 18673 (January 2013).

¹⁷ See Manyika, Mendonca, Remes, et al., “How to compete and grow: A sector guide to policy,” McKinsey Global Institute (March 2010).

¹⁸ For more detail on the Third Plenum measures and Goldman Sachs Research interpretations at the time, see Nathan (ed.), “Top of Mind: Changing China” (Dec 2013); Cui, Song, Tang and Wei, “China’s Third Plenum: Sweeping changes unveiled in ambitious reform agenda” Goldman Sachs Economics Research (Nov 2013); Zhu, Bei, Moe, Sun and Liu, “Third Plenary: Ambitious blueprint to boost sentiment,” Goldman Sachs Portfolio Strategy Research (November 2013). In addition, see Rosen, “Avoiding the Blind Alley: China’s Economic Overhaul and its Global Implications,” *Asia Society Policy Institute* (2014).

investment intensity gradually lower, while improving the return on that investment.

3. **Less reliance on debt financing.** In addition to higher returns, a greater equity component of future investment will help the corporate sector de-lever.

Exhibit 13: Selected elements of the Third Plenum reform agenda

Broad themes	Major goals	Sample actions taken/planned
1. Fiscal reform	Central/local fiscal reform	<ul style="list-style-type: none"> Launch municipal bond market Define liabilities/guarantees for LGFV debt (Document 43) Enhance debt management system for central and local governments VAT tax reform Plans for property tax reform submitted to the State Council
	Interest rate deregulation	<ul style="list-style-type: none"> Preparation for introduction of deposit insurance Deposit rate reform Broaden coverage of general deposits to include non-bank financial institution deposits (e.g., internet money market mutual funds)
2. Financial liberalization	Capital account convertibility	<ul style="list-style-type: none"> Shanghai - Hong Kong stock connect Expand CNY/USD trading band from 1% to 2% Shanghai/other FTZs
	Equity market development	<ul style="list-style-type: none"> Revise IPO rules towards a registration system Allow banks to issue preferred shares on a pilot basis Allow qualified listed/unlisted companies to issue preferred shares
3. Sustainable urbanization	Encourage consumption	<ul style="list-style-type: none"> Allow couples to have a second child if either parent is single child Reform social safety nets to reduce precautionary savings
	Rural welfare	<ul style="list-style-type: none"> Target overall/hukou urbanization rates of 60%/45% by 2020 Register rural land / define rural land rights Integrate health care system for urban residents with rural hukou
4. SOE reform	Increase competition	<ul style="list-style-type: none"> Open the markets further to non-SOEs Open up 80 demonstration projects
	Improve capital efficiency	<ul style="list-style-type: none"> Issuing guidelines on cash dividend payouts Raise percentage of state-owned capital gain to MOF Initiated the New Silk Road fund for the 'one belt and one road' strategy Reform input pricing
	Managerial incentives	<ul style="list-style-type: none"> Cut the pay of executives at centrally administered SOEs Mixed ownership pilot program for 6 SOEs Railway sector consolidation Telecom operators can set service tariffs/packages without approvals
5. Other initiatives	Anti-corruption	<ul style="list-style-type: none"> Disclose public officials' property ownership and credit records Reduce 'san gong' spending, gov't building; explore 'official residences' Regulate business involvement of officials' relatives
	Environmental protection	<ul style="list-style-type: none"> Incorporate environmental protection assessment into government officials' performance reviews Deemphasize growth (Shanghai dropped annual growth target) Natural resources property right registration system Promote tax cuts and subsidies for electric vehicles
	Government efficiency	<ul style="list-style-type: none"> State Council announcements on streamlining administrative processes Increase base salaries of civil servants

Source: China State Council, press reports.

The remainder of this report shows how the combination of an updated framework for investment and increased market discipline could further these development transitions—with each magnifying the impact of the other.

Part 2 shows the potential benefits of attracting more foreign investment in China via reduced restrictions and greater protections for investors. Higher foreign investment could drive greater equity inflows (addressing points 2 and 3 above) and increase transfers of technology (addressing points 1 and 2 above) across the economy. We highlight in particular the potential role of investment treaties, including the proposed US-China bilateral investment treaty currently under negotiation.

Facilitating more efficient investment, for both Chinese and foreign capital, via the development of deeper and more robust capital markets is the subject of Part 3. Our analysis suggests significant potential productivity gains from incentives to allocate capital to more productive enterprises (addressing point 2 above). Better allocation of capital could in turn reduce the need for debt financing somewhat (addressing point 3 above).

Each of these reforms could magnify the impact of the other. More robust and better-functioning capital markets will provide greater comfort to investors that funding sources will be available for economically sound enterprises, and facilitate a positive growth environment more generally, encouraging investment. And increased investment and technology transfer can help capital market efficiency, as in other areas.

Part 2: Policy changes can attract investment for the next phase of China's growth

Foreign direct investment (FDI) can be an important catalyst for economic development, transferring capital and technology to countries where it is relatively scarce. China's size and growth have made it one of the world's most popular destinations for FDI, despite considerable sector-specific restrictions on foreign investment. Reducing these restrictions and improving protections for foreign investors in China—both of which are elements of a potential US-China bilateral investment treaty (BIT)—could have several potential benefits: increasing investment in future growth sectors, transferring needed technology and skills, and providing further equity financing.

The impact of foreign direct investment

Foreign direct investment (FDI) can play an important role in economic development and growth. Beyond the direct benefits of providing investment capital and creating jobs, over the longer term FDI can raise local demand for skills, facilitate technology transfer, spread best practices and management techniques and bolster local capital formation.

Much academic research concludes that the benefits from FDI can be widespread and long-lasting. In the near-term, FDI creates employment, often at higher wages, and increases local tax revenues. The broader benefits come over time, as FDI helps to raise productivity in the host economy and often furthers international trade integration. Among the most important of the 'spillover' effects is the technology transfer that FDI typically entails – a transfer not just of production processes and equipment but also of management techniques and improvements in human capital. 'Backwards spillover effects,' for example, appear as the multinational helps its local supplier firms to boost productivity and improve the efficiency of their resource usage. Multinational firms can draw on their own design processes and distribution channels to tap overseas markets that would otherwise be inaccessible for domestic firms. In this way trade and investment reinforce each other.

FDI strengthens human capital formation, through formal training and on-the-job learning, and by raising the demand for skills across a broader range of companies. Competition with local firms can help to improve the local business environment, raise local productivity and encourage local capital formation. In some cases FDI is associated with more stringent environmental and labor standards, though this is of course not always the case, particularly in extractive sectors.

Ultimately FDI helps to raise total factor productivity in the host economy – which is one of the critical drivers of economic development over the long term.

Spillover effects of FDI are not automatic and can vary significantly by the sector, the sequencing of investment and the overall business climate. For example, FDI in natural resources sectors has the potential to spread technology and to develop local skills – but it also has the potential to remain isolated from the wider economy, to encourage rent-seeking behavior among local officials and to contribute to environmental degradation. Sequencing matters because the local market needs to be able to absorb the skills and technologies that FDI brings. Putting a high-tech investment in a low-skills economy, for example, is unlikely to raise the quality of local labor or local firms beyond the immediate investment. Research suggests that the local economy's 'absorptive capacity,' which is generally measured in terms of education, health, technology, openness and regulation,

has a critical influence on the extent to which FDI can support growth in the host economy.¹⁹

FDI into and out of China²⁰

FDI has played an important role in China's 35 years of economic reform and opening, beginning with the creation of Special Economic Zones in the early 1980s. In dollar terms, annual FDI inflows have grown from just \$57 million in 1980 to \$124 billion in 2013. This represents a compound annual growth rate of 26%, far outstripping the 10% pace at which global FDI inflows grew over the same period. In 1980 China attracted less than 1% of global inbound FDI; in 2013 its share had risen to 9%. Preliminary 2014 data suggests China was the world's largest recipient of FDI, moving ahead of the US.

Since 2000, the pace of annual growth of FDI inflows has slowed, to a CAGR of 9%, and between 2008 and 2013 the pace has declined further, to a CAGR of 3% (Exhibit 14). Nonetheless China remains one of the world's most popular destinations for FDI; on a global basis, FDI inflows have been flat since 2000 and have declined by 4% on a compound average basis since 2008. China's modest but continued growth has put it near or at the top of the league table today.

More than two-thirds of China's annual FDI inflows have come from developing countries, with East Asia²¹ contributing an increasing proportion; East Asia was the source of 47% of China's total inbound FDI in 2001 versus 64% of the total in 2012. However, FDI inflows originating in the US have been on the decline, with the US contributing 9% of China's total FDI inflows in 2001 (\$4bn) but just 2% in 2012 (\$2.6bn). Put another way, between 2000 and 2012 US FDI into China declined 5% on a compound annual basis while total global FDI inflows to China grew 8%. Relative to US outbound flows generally, US FDI to China has been heavily concentrated in the manufacturing sector, with relatively less representation in the financial sector for example (Exhibit 15).

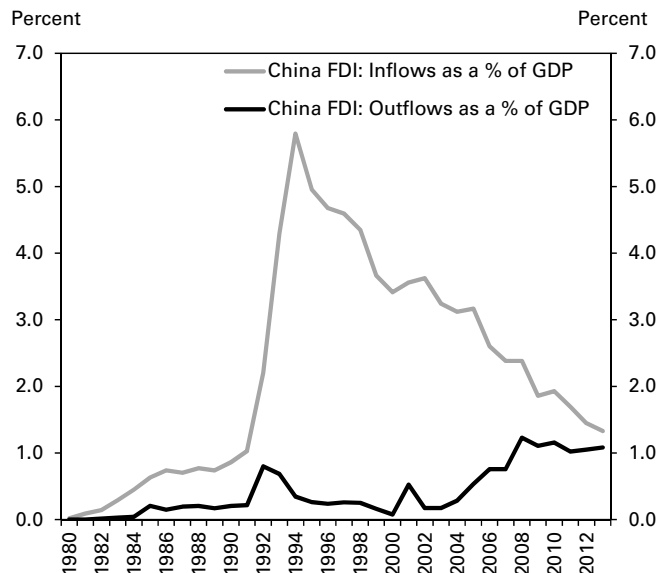
Since 2000, China has also become a significant source of outbound FDI. With a compound annual growth rate of 44%, China's share of global FDI outflows has risen from less than 1% in 2000 to 7% in 2013, and in dollar terms from just under \$1 billion to \$101 billion. The pace has remained robust even after the GFC. Chinese FDI outflows principally target developing economies, with 80% of outflows going to developing economies in 2012. Outbound investments have been concentrated in natural resources, including metals, agricultural land and sea rights. Between 2003 and 2012, an average of just 2% of China's total outbound FDI went to the US.

¹⁹ See, for example, Bénassy-Quéré, Coupet and Mayer, "Institutional determinants of foreign direct investment," NBER Working Paper (May 2005); Desai, Foley and Hines, "Foreign direct investment and domestic economic activity," NBER Working Paper (Oct 2005); Battat and Kusek, "Attracting FDI – how much does investment climate matter?" World Bank Group Viewpoint no. 327 (2011); Whalley and Xin, "China's FDI and non-FDI economies and the sustainability of future high Chinese growth," NBER Working Paper (May 2006); te Velde, "Foreign direct investment and development: an historical perspective," Overseas Development Institute (Jan 2006).

²⁰ FDI data referenced throughout this section comes from the United Nations Conference on Trade and Development (UNCTAD). This data set may not be consistent with others (including the World Bank) since the Chinese government changed how it reports FDI statistics as of 2005; prior to 2005, the data did not include FDI in financial services. For more detail see: http://unctad.org/en/Docs/iteiimisc20075_en.pdf and <http://unctadstat.unctad.org/EN/>. Most recent data is from 2013. UNCTAD FDI data is presented on a net basis: 'capital transactions credits less debits between direct investors and their foreign affiliates.'

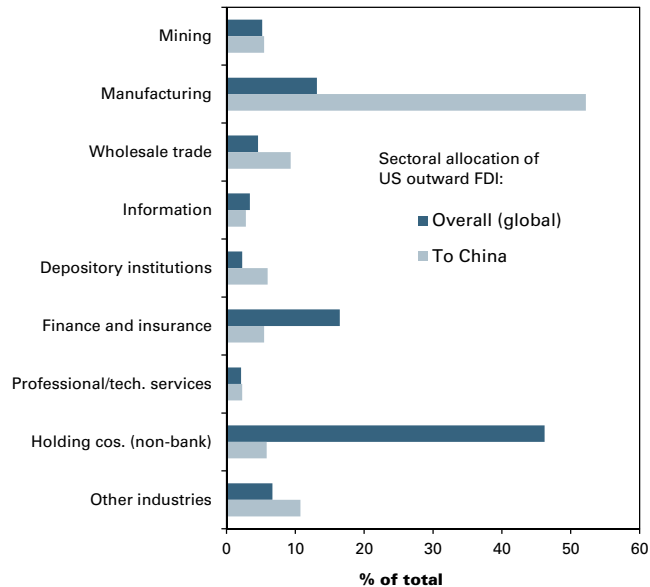
²¹ It is worth noting that interpreting FDI between China and other East Asian economies is not a straightforward exercise given their close economic ties and low levels of data granularity. For example, Chinese funds may be included in FDI from Hong Kong into China, as Chinese investors try to take advantage of benefits from the mainland's favorable treatment of foreign capital; investment from Hong Kong may also represent funds from other countries routed through Hong Kong subsidiaries.

Exhibit 14: China’s FDI flows become more balanced



Source: UNCTAD.

Exhibit 15: US investment in China focuses on manufacturing



Source: Bureau of Economic Analytics, Haver Analytics.

Inbound restrictions persist, but may be easing

Inbound FDI remains highly regulated in China, which is the most restrictive of the G20 countries when measured against an OECD index of FDI restrictiveness.²² China has a detailed set of rules on foreign direct investment, designating industries at a granular level as ‘encouraged,’ ‘restricted’ or ‘prohibited’. Many manufacturing sectors and investments in power, gas and water are encouraged, as are farming and agricultural products, although shipping, automobile manufacturing and rare metals are restricted, and petroleum processing and tobacco are among the prohibited sectors. Finance broadly is restricted while most media and entertainment areas are prohibited. See Exhibit 16 for a summary of the most recent (2014) catalog of investment designations from China’s National Development and Reform Commission.

Many foreign investments must undergo a detailed and substantive government review, including a review of the terms of most joint ventures. This type of review is not required for domestic investments, i.e. there is no ‘national treatment’ for foreign-based firms.

²² See Dollar, “United States-China Two-way Direct Investment: Opportunities and Challenges” Brookings Institution (December 2014).

Exhibit 16: Summary of selected foreign direct investment restrictions in China, by sector

	Encouraged	Restricted	Prohibited
1. Farming, Forestry, Animal Husbandry and Fishery Industries			
Farming, including agricultural and eco-ocean products	▲		
Fishing (inland waters)			▲
2. Mining and Quarrying Industries			
Prospecting, exploitation and utilization of coal-bed gas (for joint ventures)	▲		
Exploration/mining of special/scarce coals*		▲	
Exploration/mining of tungsten, molybdenum, tin, radioactive minerals, rare earths			▲
3. Manufacturing Industries			
Agricultural products (including food, beverage, textile/clothing, lumber)	▲		
Electronics manufacturing	▲		
Rare metals and rare earth smelting		▲	
Automobile and motorcycle manufacturing (whole piece)* **		▲	
Petroleum processing, coking and nuclear fuel processing, radioactive mineral smelting			▲
4. Production and Supply of Power, Gas and Water			
Power utilities (electricity, hydropower, nuclear, clean energy, etc.)	▲		
Utilities (fuel heat, steam, sewage, etc.) in cities with populations >500,000*		▲	
Conventional coal-fired power for condensing steam plants in big grid			▲
5. Communication, Transportation, Post and Telecommunication Services			
Transportation infrastructure (rails, roads, bridges/ports, airports)	▲		
Air transportation control*			▲
Postal service			▲
6. Wholesale and Retail Trade Industries			
Grain and cotton wholesale trade, shipping agencies*; gas stations (>30 locations)*		▲	
Tobacco (wholesale and retail)			▲
7. Banking and Insurance Industries			
Banks, insurance, and securities companies		▲	
8. Services Industries			
Accounting, auditing, leasing services	▲		
Social surveys			▲
Legal consulting services			▲
9. Scientific and technical services industries			
Scientific research and engineering industries	▲		
Geological surveying			▲
Genetics and human stem cells technologies and application			▲
10. Water, environment and public facility management industry			
Urban metro and rail transit operations; waste treatment plants	▲		
Nature reserves and wetlands operations			▲
11. Education			
Higher education institutions and nursery schools		▲	
Compulsary education for the military, police, public servants, and party school			▲
12. Public health, social security and social welfare			
Social services for disabled, elderly, and youth	▲		
Healthcare facilities and institutions		▲	
13. Culture, sports and entertainment			
Film, television, and radio production companies		▲	
Media outlets and news agencies			▲
Periodicals (including newspapers) and book publishers			▲
14. Other			
Gaming (e.g., casinos, horse racing)			▲

* Chinese party shall hold the majority of shares.

** Same foreign entity can establish up to two JVs, unless it joins a Chinese partner via merger and acquisition

Source: China National Development and Reform Commission.

A draft law published in January 2015 is intended to update—and has the potential to liberalize—existing foreign investment restrictions. Some legal commentators²³ indicate that the draft would streamline the designations into just two lists: ‘prohibited’ and ‘restricted.’ Investments in sectors that are not designated would effectively receive ‘national treatment,’ or at least move closer to it. Some foreign investments would still be subject to review (depending on the sector and the size of the investment), but this review would no longer examine the commercial terms between joint venture parties.

Factors behind FDI decision-making: views from our equity analysts

Academic literature suggests that firms focus on a range of factors when making decisions to invest outside their home country.²⁴ The principal drivers of outbound FDI include:

- Size and growth potential of the host-country market
- National treatment or ‘most-favored nation’ status for foreign-owned firms, i.e. no discrimination between domestic and foreign firms, and no discrimination among foreign firms from different countries
- Ownership rights, including flexibility in the structuring of investments and joint ventures, along with the ability to repatriate profits
- Strong protection of property rights, especially intellectual property
- Political stability, rule of law and overall business climate
- Quality, cost and supply of labor, both skilled and unskilled
- Local infrastructure
- Availability of natural resources
- Tax or financial incentives
- Proximity to the company’s home country

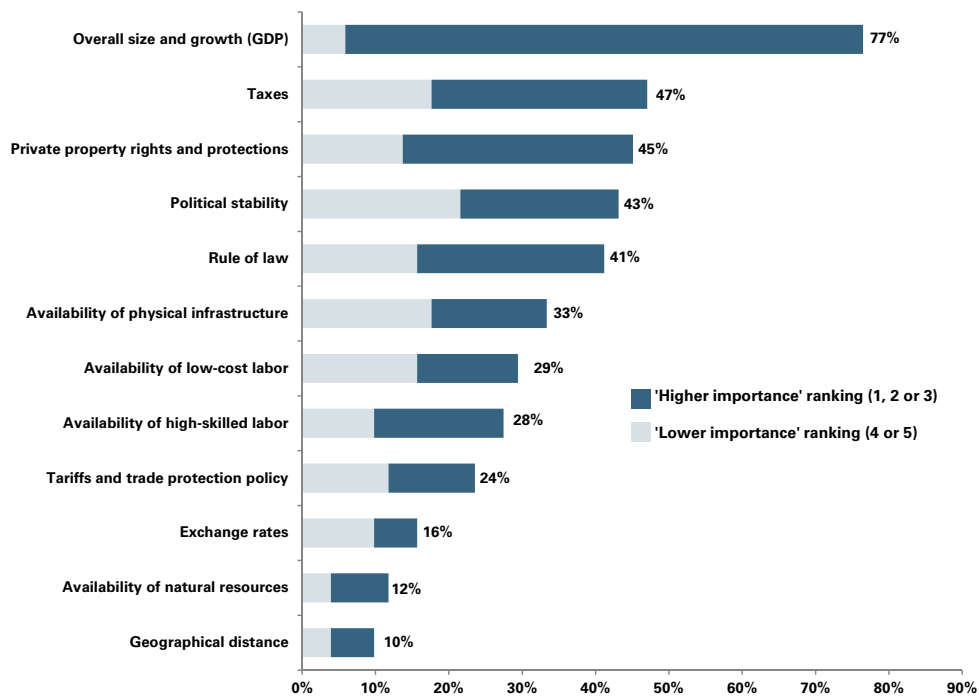
These conclusions are borne out by a proprietary questionnaire answered by 51 of our US equity research analysts in January 2015. We asked participants to identify and rank the factors affecting FDI decision-making for US-domiciled firms in their sectors, both in general and specifically for investments in China. As Exhibit 17 shows, almost half of all US respondents identified three characteristics as important factors related to FDI in their sectors overall: size and growth of the target market (77% of our respondents), taxes (47%) and private property rights and protections (45%). Political stability and rule of law were also important considerations for more than 40% of respondents, with some citing the availability of labor (whether high-skilled or low-cost, depending on the industry) as well as physical infrastructure. Geographical distance to the target market and availability of natural resources were less important among US respondents overall.

²³ See, for example, “China Plans Major Overhaul of Its Foreign Investment Regulatory Regime,” Gibson Dunn memorandum (January 2015): <http://www.gibsondunn.com/publications/Pages/China-Plans%20Major-Overhaul-of-Foreign-Investment-Regulatory-Regime.aspx>

²⁴ See, for example, Blonigen, “A review of the empirical literature on FDI determinants,” NBER Working Paper (May 2005); Dollar, “United States-China Two-way Direct Investment: Opportunities and Challenges,” Brookings Institution (December 2014); Bénassy-Quéré, Coupet and Mayer, “Institutional determinants of foreign direct investment,” NBER Working Paper (May 2005).

Exhibit 17: Key factors behind FDI decision-making for US firms (all FDI destinations)

% of US respondents indicating importance for FDI decision-making in their sector overall (ranking based on 5-point scale: 1=highest importance; 5=lower importance)



Source: Goldman Sachs Global Investment Research.

A sectoral breakdown, as shown in Exhibit 18, points to the importance of tax rates for technology, media and telecommunications (TMT) investments (probably reflecting local tax treatment of intellectual property), along with high-skilled labor and private property rights. Financial sector analysts indicated that political stability is an important consideration for FDI decision-making, with private property rights ranking high for both healthcare and industrials/basic materials.

Exhibit 18: Key factors behind FDI decision-making for US firms: trends by sector
 % of US respondents indicating high importance for their sectors, by industry group

	CONSUMER / RETAIL	ENERGY & UTILITIES	FINANCIALS	HEALTHCARE	INDUSTRIALS & BASIC MATERIALS	TMT
Overall size and growth (GDP)						
Taxes						
Private property rights						
Political stability						
Rule of law						
Availability of physical infrastructure						
Availability of low-cost labor						
Availability of high-skilled labor						
Availability of natural resources						
Tariffs and trade protection						
Exchange rates						
Geographical distance						

Key
 % of sectors ranking with high importance*

At least 70%

At least 50%

At least 25%

At least 10%

< 10%

* High importance = '1', '2' or '3' on 5-point scale (1=highest importance; 5=lower importance)

Source: Goldman Sachs Global Investment Research.

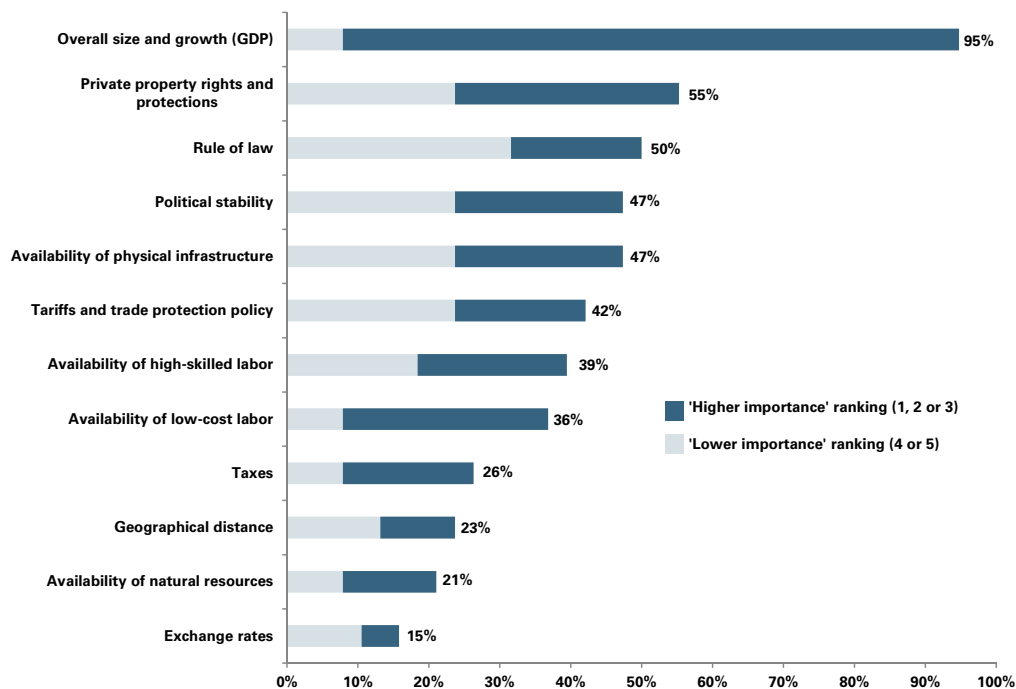
We also asked about the attractiveness of China specifically as an investment destination for US firms. Nearly three-quarters of the US sectors we surveyed make, or seek to make, foreign direct investments in China. The remaining sectors, notably those in financials, energy and utilities and TMT, noted limitations imposed by trade protection policies (for example, Chinese legal restrictions on foreign ownership of banks, insurers and internet companies) and concerns about private property rights. Others, including homebuilders and cable and satellite companies, are typically focused on domestic markets with limited foreign investments.

As shown in Exhibit 19, the factors identified as important to foreign investment decisions in China were generally consistent with those identified for foreign investment decisions overall. Nearly all respondents (95%) indicated that China’s potential economic growth is an important consideration for investments there, with half or more citing private property rights and protection (55%) and rule of law (50%). Other factors that seem to be more relevant for FDI in China specifically include the availability of physical infrastructure (47% of respondents identified as important for FDI into China, compared to 33% for overall FDI) and tariffs and trade policies (42% for FDI into China, compared to 24% overall).

Many respondents who cited ‘other’ concerns pointed to industry-specific considerations. For example, in healthcare, US specialty pharmaceuticals companies value access to facilities when considering FDI in China, while US medical technology and diagnostics firms weigh heavily the government’s stated objective to boost healthcare as a share of GDP.

Exhibit 19: Key factors behind US firms’ decision-making on FDI to China

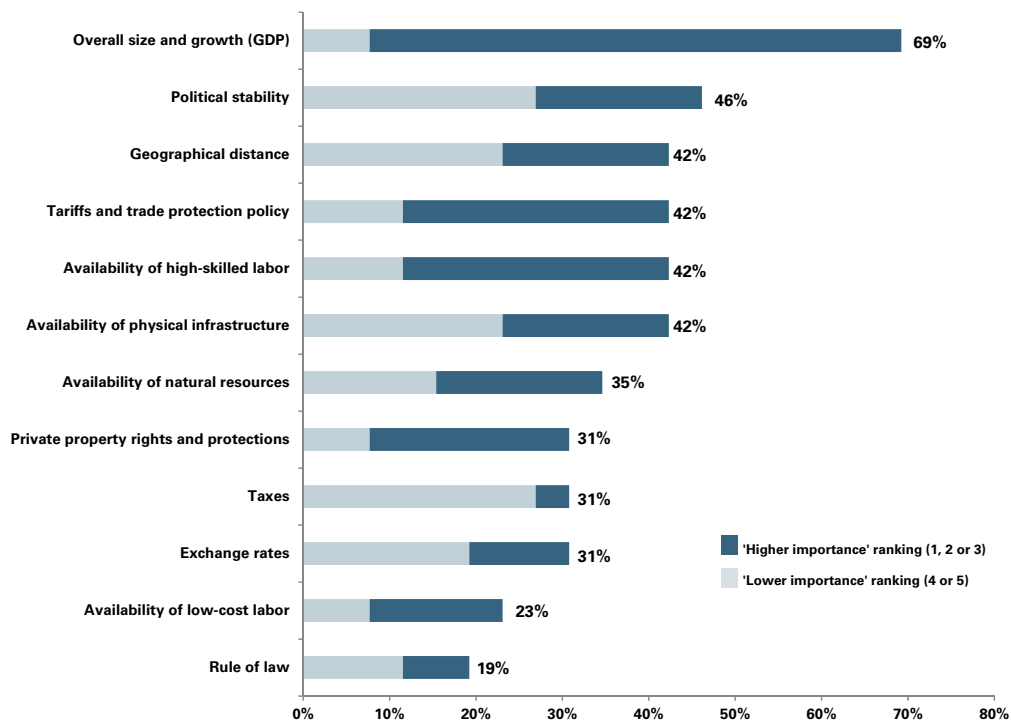
% of US respondents indicating importance for decision-making on FDI into China for their sector (ranking based on 5-point scale: 1=highest importance; 5=lower importance)



Source: Goldman Sachs Global Investment Research.

As a point of comparison, we conducted a similar survey of 26 of our Asia-Pacific equity analysts, asking them to identify and rank the factors affecting FDI decision-making for China-domiciled firms in their sectors, both in general and specifically for investments in the United States. As shown in Exhibit 20, many respondents cited a target market’s overall size (69%) and political stability (46%) as key inputs to FDI decision-making, consistent with feedback from our US respondents. Analysts also noted the importance of geographical distance, trade protection policy, high-skilled labor and physical infrastructure (each identified by over 40% of respondents).

Exhibit 20: Key factors behind Chinese firms’ FDI decision-making (all FDI destinations)
 % of Asia-Pacific respondents indicating importance for decision-making on FDI into the US for their sector overall (ranking based on 5-point scale: 1=highest importance; 5=lower importance)



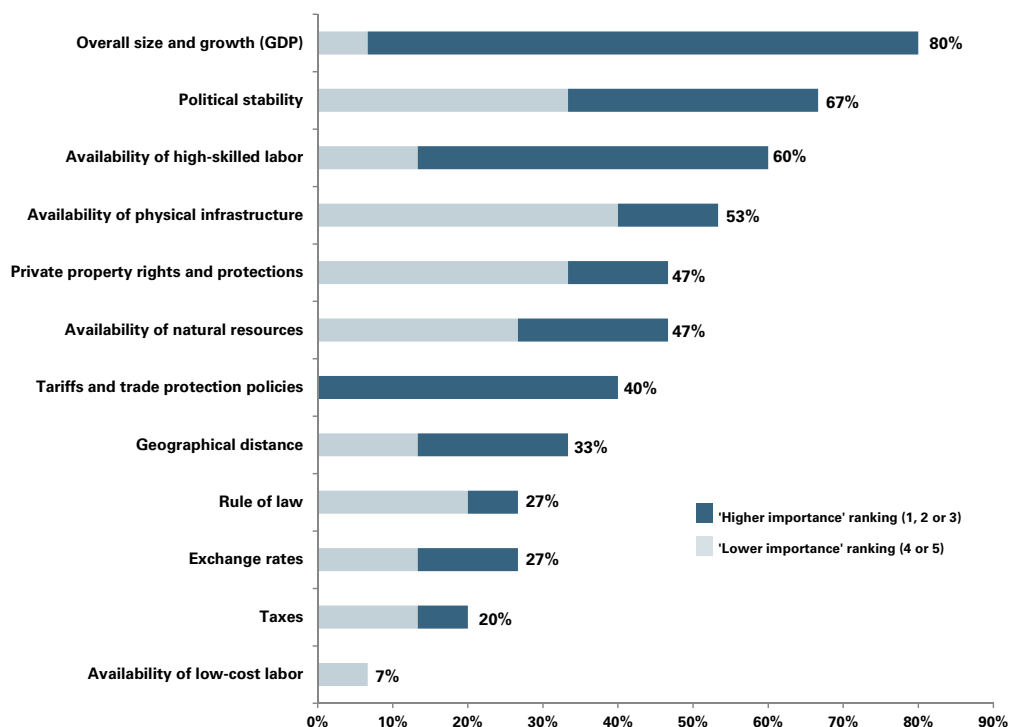
Source: Goldman Sachs Global Investment Research.

About 60% of our Asia-Pacific respondents cover Chinese companies that make, or seek to make, foreign investments in the United States. Respondents provided two broad explanations as to why the other sectors do not pursue investments in the US. First, trade protection policies limit or prohibit foreign involvement in certain US industries (including airlines and certain technology/telecommunications sectors). In addition, industry-specific dynamics may make the US a relatively less attractive destination for investment. For example, Chinese firms in both the software and environmental services sectors are largely focused on making investments in emerging markets.

For Chinese firms making, or seeking to make, investments in the US, our respondents noted the most important factors for FDI decision-making include political stability (67%) available high-skilled labor (60%), and availability of physical infrastructure (53%), in addition to the overall size and growth of the US (80%) (Exhibit 21).

Exhibit 21: Key factors behind Chinese firms' decisions on FDI into the United States

% of Asia-Pacific respondents indicating importance for decision-making on FDI into the US for their sector (ranking based on 5-point scale: 1=highest importance; 5=lower importance)



Source: Goldman Sachs Global Investment Research.

Potential impact of a US-China bilateral investment treaty

With a US-China bilateral investment treaty (BIT) currently under discussion, it is worth looking at the US-China bilateral investment relationship in more detail. There is ample scope for increased two-way investment flows, given that neither country is a particularly large source of FDI to the other. The US was the source of an average 5% of China's total FDI inflows annually between 2001 and 2012, but this figure has trended down over time and stood at just 2% in 2012 (or \$2.6bn). This likely reflects ownership restrictions in key sectors where US firms generally have a strong global presence, including finance and media, along with weak protections for intellectual property.

Similarly, very little of Chinese outbound FDI has gone to the US – an average of just 2% of China's total FDI flows abroad between 2003 and 2012. Two factors help explain this. First, China's outbound FDI has focused on natural resources, which can be found in relatively greater abundance outside the US. Second, US political considerations have weighed on or in some cases derailed investments in sensitive industries. While the focus of Chinese FDI may shift beyond resources, it is less clear that US political sensitivities will abate.²⁵

The BIT is designed to address some of the obstacles to greater bilateral FDI. Although much is still subject to negotiation, several overarching points have already been agreed and made public. First, China will negotiate on a 'negative list' approach, meaning that the protections of the BIT will apply to all sectors, unless specific exceptions are negotiated in the treaty. This is a significant shift from the current approach. Second, China will treat US

²⁵ See Dollar, "United States-China Two-way Direct Investment: Opportunities and Challenges" (December 2014), Brookings Institution.

investors (other than negotiated exceptions) on the better of 'national treatment' or 'most-favored nation' grounds, meaning that foreign firms will be treated as favorably as domestic investors or any third-party investors, over the life-cycle of investment. Third, China has committed to relaxing its investment approval processes.

The model BIT text used by the US in its negotiations points to several other issues that are likely to be addressed in the final treaty. These include binding arbitration between investors and the state in the case of dispute; free inbound and outbound transfer of investment-related funds; and limits on 'performance requirements,' such as the need to use local materials, to meet export quotas or to transfer technology to domestic partners.

Services sectors including media, telecommunications, transport and finance are likely to be among the biggest beneficiaries of a BIT, thanks to the proposed loosening of restrictions on investment and ownership. Although intellectual property protections will remain subject to Chinese law, the potential elimination of joint-venture requirements should reduce the scope for mandatory technology transfer.

The direct benefits of a US-China BIT will of course be limited to US and Chinese firms. However the 'signaling' effect of greater openness to foreign investment overall may well have spillover effects to investors elsewhere, potentially driving a broader pick-up in FDI.

What is the magnitude of the potential effect? Focusing on the impact on China, we run a simple cross-sectional analysis that looks at the relationship of the stock of US FDI in 120 economies at the end of 2012 with a range of possible determinants. The set of variables we choose fall into four broad categories: the first set captures a market's size, potential and location (GDP in purchasing power parity terms, population, distance from the United States); the second set measures institutional and regulatory quality and political stability (captured by the World Bank's governance indicators); the third concerns natural resource availability (measured here as the total rent from natural resources as a percent of GDP); and finally, since we're interested in the impact that investment treaties might have on the allocation of outward FDI from the US, we include a proxy of whether or not a country had an existing bilateral investment treaty or a trade and investment framework agreement (TIFA) with the US prior to 2012.

We try a range of different models using different combinations of the variables listed above. While parameter estimates move around somewhat depending on the choice of model variables, some robust patterns emerge.

- First, FDI appears to be strongly related to the size of the foreign economy. While some studies find that the population of the destination country matters for outward FDI, we find that the impact of this variable is not significant after controlling for nominal GDP; possibly because the size of the population of a country is quite correlated with its nominal GDP. (This is borne out by the positive and highly significant coefficient on population when nominal GDP is excluded from the equation.)
- Second, political stability is an important consideration for outward-bound FDI from the US.
- There is some evidence that trade and investment treaties help facilitate outward FDI. This evidence appears stronger when the treaty is broader and includes trade; this may in part reflect the fact that some investment is in production intended for export back to the US and other economies. (As China is already a member of the WTO, additional trade negotiations may be less critical to unlocking investment, though a detailed discussion of trade provisions is beyond the scope of this report.) The evidence for positive benefits of investment treaties also seems stronger when we exclude the very smallest economies, where idiosyncratic factors may have a bigger influence on the overall FDI flow.

Averaging across a range of possible models using a statistical procedure that selects the best-performing models, we find that the predicted level of US FDI into China is more than 50% above the actual level. In other words, after taking into account China's size, distance from the US, and the specific institutional variables mentioned above, investment from the US into China is lower than we would expect. While we would not place undue emphasis on the precise figure, the important point is that it implies the potential for significantly more investment should relevant barriers be addressed.

A renewed surge in FDI, particularly in sectors that will be critical to China's next phase of development, would be a shot in the arm for growth and reform. However, it is not itself a panacea. An important complement would be better incentives and market discipline for investment more generally—both domestic and foreign. In the next section, we discuss financial market reforms that could aid in directing capital to the most productive uses, and in shifting the sources of funding to stronger balance sheets (e.g. bond and equity investors).

Part 3: How stronger capital markets would boost the quality and productivity of investment

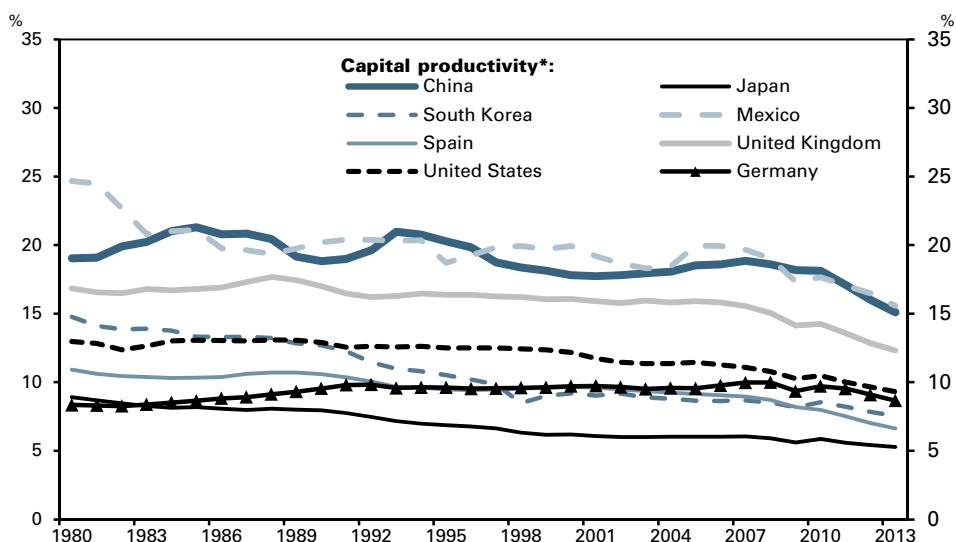
Reforming China’s financial markets could help shift investment away from manufacturing sectors saddled with overcapacity and towards more dynamic sectors of the economy, including services. More credit differentiation based on underlying business fundamentals would incentivize more productive investment, and greater equity investment could mitigate the rapid buildup in debt observed since the global financial crisis. Together with improvements to the investment regime discussed in Part 2, financial market development could provide significant support to investment and productivity growth.

In this section we review some of the distortions created by China’s current capital market setup. We then discuss measures, both on the lender and borrower side, which would help to remedy these distortions and channel capital towards the most productive uses.

China’s capital challenges

China’s capital productivity is high but deteriorating. While a rapid debt buildup helped China to cushion the external shocks from the global financial crisis and keep domestic growth strong even amid an anemic DM recovery, it has sown seeds of vulnerability. Fuelled by an easy supply of credit, China has been rapidly accumulating capital in the past few years, and there are widespread worries that the investment rate is too high and returns on investment eroding fast. Despite these concerns, we found that, at the aggregate level, China’s capital productivity (i.e., the amount of GDP that an additional unit of capital can create) still appears relatively healthy when stacked against global peers (Exhibit 22).

Exhibit 22: China still shows strong capital productivity

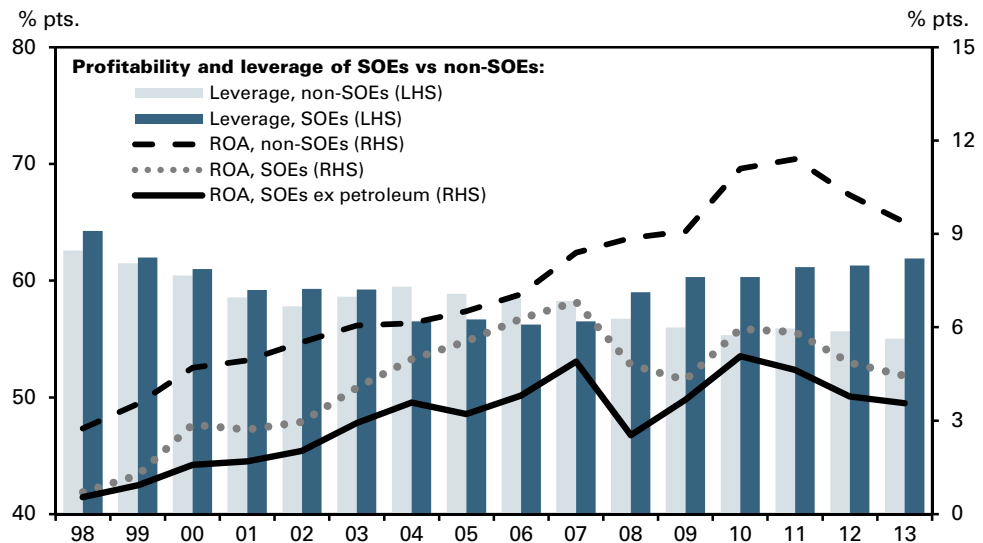


* Capital productivity=capital share x GDP/capital stock
 Source: Haver Analytics, Goldman Sachs Global Investment Research.

However, a closer look reveals that there are significant pockets of inefficiency. There has long been a bias of Chinese lenders to channel credit to government-supported entities, even though they may be less productive. The vigorous rate of credit extension in the last few years has made the distortion even more pronounced.

One clear manifestation of this is the sharp divergence in the leverage and profitability of industrial SOEs vs. their non-SOE or private counterparts (Exhibit 23). Although evidence suggests non-SOEs are more productive, they have been de-levering while SOEs continue to lever up. And rather than being driven by isolated industries, this appears to be a fairly broad-based phenomenon (Exhibit 24). Across 36 industries (excluding sectors that are either overwhelmingly dominated by SOEs or very small: i.e., petroleum, cigarettes and other mining), the ROA gap between industrial SOEs and private enterprises has widened in about 75% of them. Among the industries where the gap has narrowed, some are where the market share captured by SOEs is relatively low and they face strong competition from non-SOEs (e.g., furniture, fiber). Meanwhile, about 70% of industries have seen the leverage ratio rise faster for SOEs than for non-SOEs in recent years.

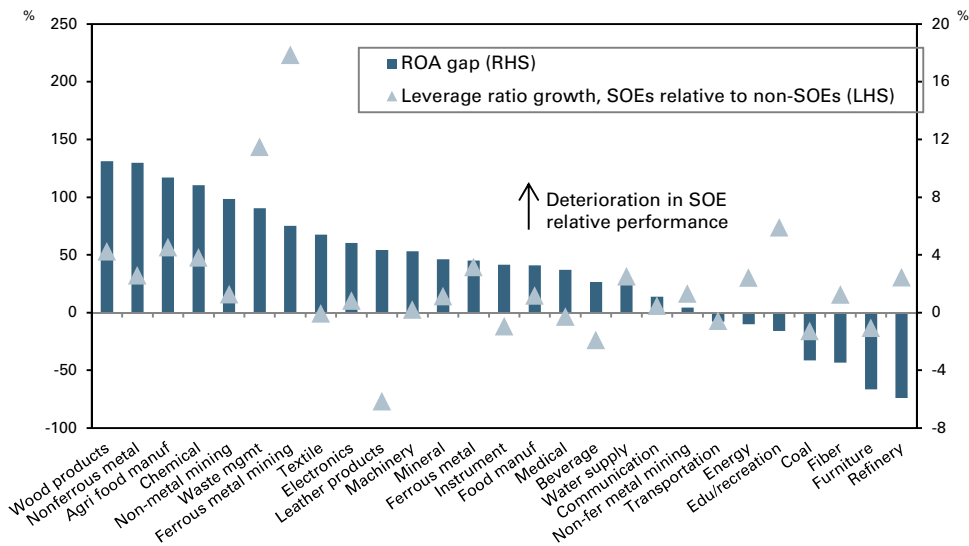
Exhibit 23: Marked divergence in profitability and leverage of SOEs vs. private enterprises



Source: China National Bureau of Statistics, Goldman Sachs Global Investment Research.

Exhibit 24: The aggregate picture extends to individual industries

Relative change in ROA and leverage, private sector firms vs. SOEs, by industry, since 2007



Source: China National Bureau of Statistics, Goldman Sachs Global Investment Research.

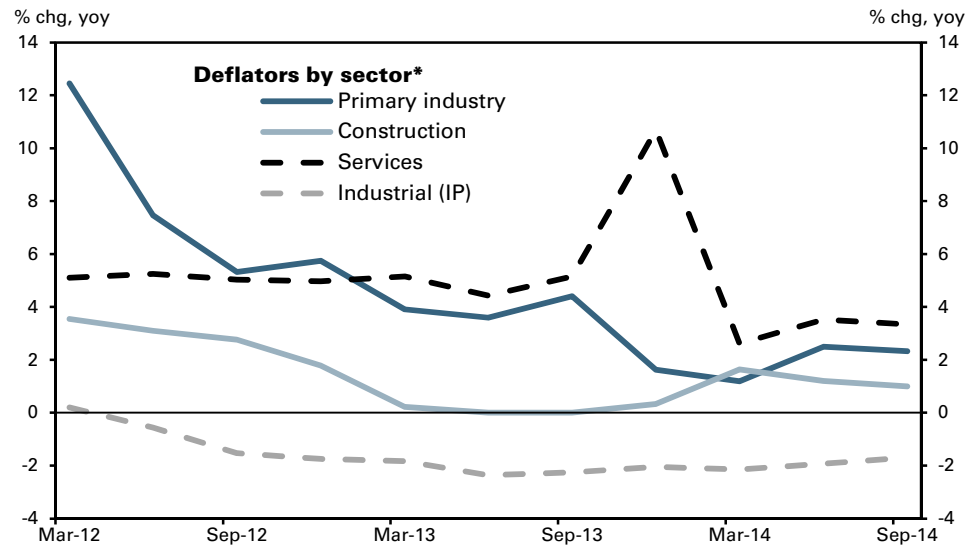
Admittedly, not all the underperformance in ROA can be strictly attributed to weaker capital productivity of SOEs, as many SOEs’ profitability is constrained by their social function of supporting employment (i.e., hiring more workers than economically optimal). However, even after accounting for that, our earlier research has estimated that if the efficiency of capital resource allocation in the industrial sector had not deteriorated since 2007, the current level of overall GDP could have been 1-2ppt higher. Putting it another way, in terms of investment saving, had SOEs’ capital productivity been broadly in line with non-SOEs’, investment could have been reduced by roughly an average of 1½ ppt of GDP per year in the last few years, while industrial output could still have been maintained at the current level.²⁶

The overcapacity in many upstream industries, where credit-driven investment had been rapid in prior years, has slowed growth and led to inflation decelerating significantly since 2012. This has been led by the industrial and to a lesser extent construction sectors (Exhibit 25). At the firm and macro level, deflationary pressures could worsen debt repayment capability, as has been the case in the Euro area periphery and Japan in recent years. The emphasis of policymakers on broadly stable dollar exchange rates may dampen prices further, given significant dollar appreciation against most other currencies. For the whole industrial sector (based on the NBS sample) interest expense as a share of EBIT has been quite stable around 10% since 2012. However, stress has likely been emerging in selected sectors and firms, and will deepen should output prices continue to face deflationary pressures.

²⁶ See Tang, “China: Time to reboot SOE productivity,” Goldman Sachs Economics Research (November 2013).

Exhibit 25: Overcapacity drives deflation in the industrial sector

Inflation rates in different sectors of the Chinese economy



*Year-to-date, year-over-year.

Source: China National Bureau of Statistics.

Channeling investment more productively

Capital allocation must shift in several ways to achieve the best possible returns on investment and contribute more to balanced and sustainable growth in China. Ingredients of a successful recipe for reform include:

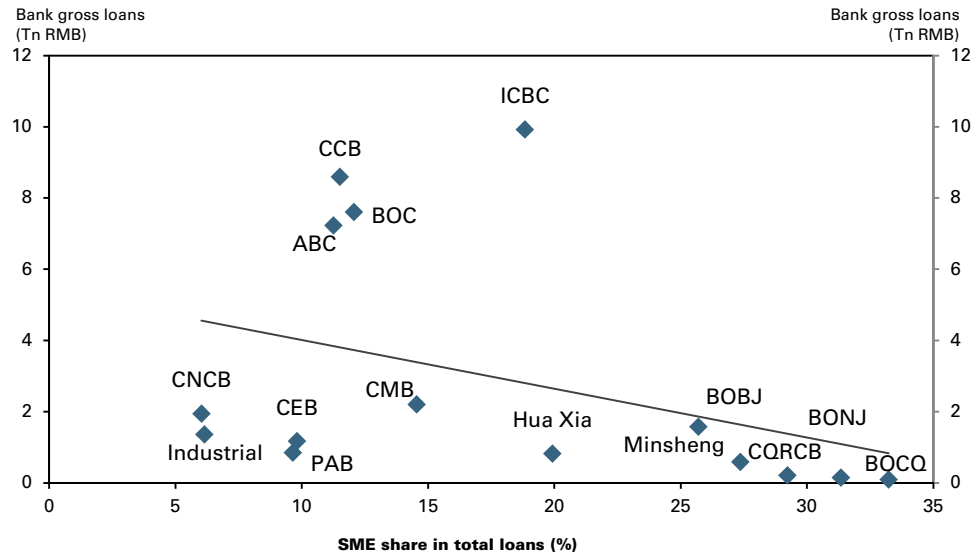
1. **Facilitating equal access to credit for non-SOEs.** As discussed above, private enterprises, particularly SMEs, are often more productive than SOEs but have typically faced limited financial access due to the institutional bias in the credit system. In our past work on China listed company leverage, we noted that since the global financial crisis, there has been a much faster increase in leverage amongst the larger companies.²⁷ As many of the large corporates are state-owned, we believe this reflects the “crowding out” effect as lenders prefer SOEs that carry implicit government support, and shy away from smaller private enterprises. We think this is one reason why there has been such a strong growth in shadow banking financing, as underserved corporates seek alternative sources of debt financing.

The PBOC has been expanding re-lending quotas to encourage bank loans to small private enterprises, although the scale remains small (outstanding balance at about Rmb50 bn as of end-2014). Another relatively straightforward way to support more financial resources being directed to smaller businesses would be simply to introduce more smaller and/or privately-owned banks. These banks’ local focus and/or lack of state background often mean that they are more inclined to cultivate banking relationships with smaller and private enterprises (Exhibit 26). The recent policy initiative to license more privately-owned banks (including an online bank that was launched last month) is a step in this direction.

²⁷ See Ho, Zhu, Tilton, Moe, et al., “The China credit conundrum: risks, paths, and implications,” Goldman Sachs Portfolio Strategy Research (July 2013).

Exhibit 26: Smaller banks have more exposure to SMEs

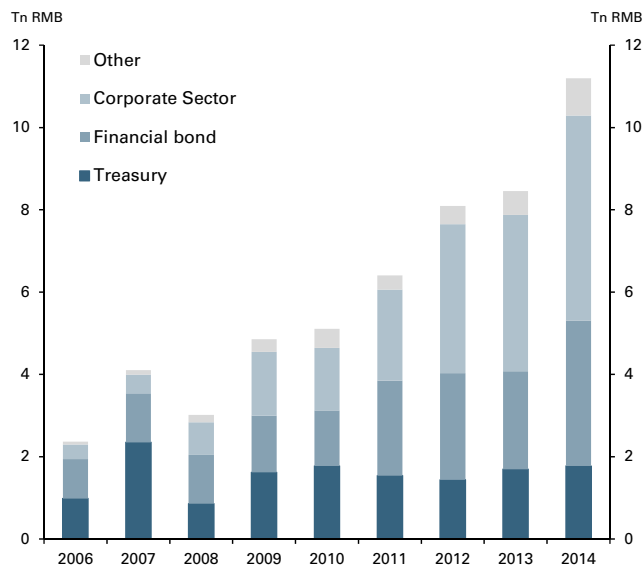
Bank loan book size versus share of lending to SMEs



Source: Company data, Gao Hua Securities Research.

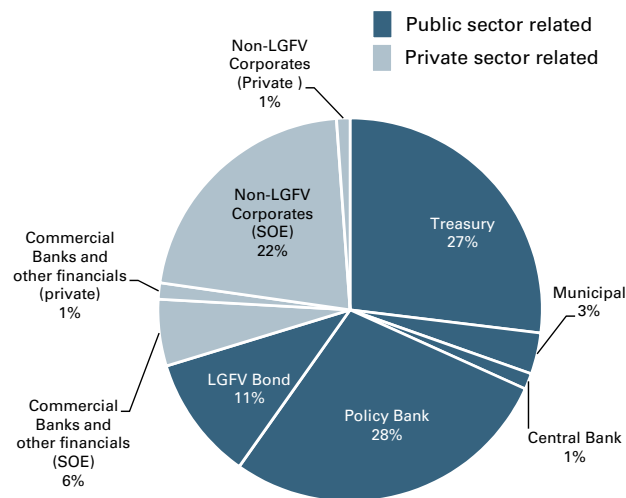
- Further development of the bond market.** Recent years have witnessed strong growth in the onshore bond market, driven by a combination of issuance from the financial and corporate sectors (see Exhibit 27). 2014 was a record year of issuance, with Rmb11.2 tn of onshore bonds issued, representing an increase of 32% from the previous record of Rmb8.5 tn in 2013. We expect to see the growth momentum continue, driven by two main factors. Firstly, although corporate bond issuance has increased significantly in recent years, we estimate that around 95% of the corporate issuance is from state-related sectors (i.e. SOEs or LGFVs), and the private enterprises remain underserved. As the market develops further, we expect to see a broader range of companies being able to tap the bond market and also to see larger corporates increasingly use the bond market to diversify away from bank loan funding. Second, municipal bonds are currently a very small part of the bond market, representing only 3% of outstanding bonds (see Exhibit 28). Reform of local government financing will likely drive a meaningful increase in municipal bond issuance.

Exhibit 27: Strong growth in the Chinese bond market
Historical China bond issuance (Rmb tn)



Note: not including central bank bills.
Source: Wind, Goldman Sachs Global Investment Research.

Exhibit 28: Private sector bonds remain a small part
Breakdown of China bond market by segment



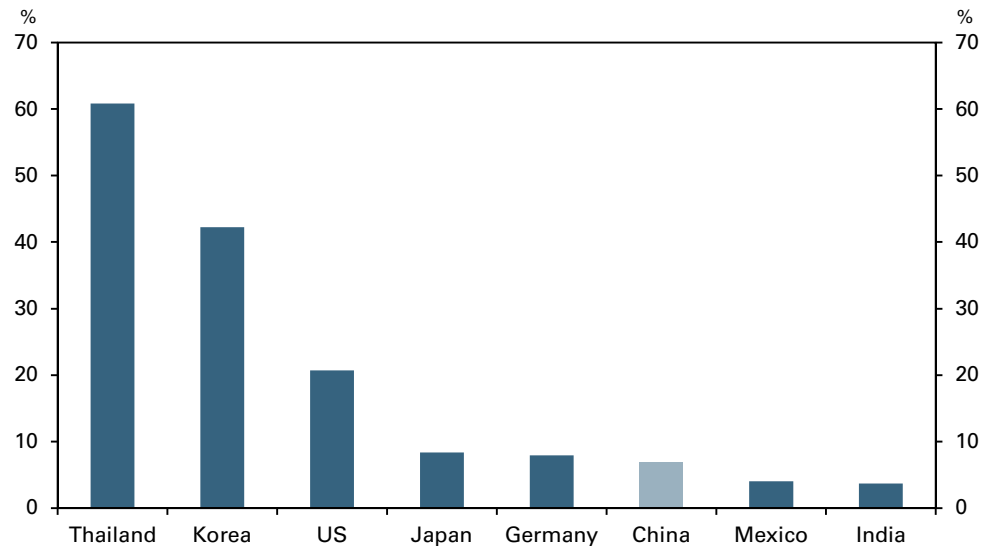
Source: Wind, Goldman Sachs Global Investment Research.

- A shift from corporate to household lending.** Chinese households typically have strong balance sheets and are very lowly levered (Exhibit 29) — indeed, with a typical household holding as much as a quarter of their assets in cash deposits, Chinese consumers are hardly liquidity constrained. Faster consumption growth could allow greater scope for more proactively engineering a slowdown in investment and credit from currently high levels.

Low household leverage, alongside policymakers’ plan to support the residential real estate sector, led policymakers to relax residential mortgage policies in September 2014. Banks were also encouraged to issue mortgage-backed securities and long-term special financing bonds to fund increased mortgage lending. Lowering the cost and increasing the scope of consumer lending could help to reduce the reliance on investment-led growth driven by rising corporate leverage.

Exhibit 29: Chinese consumers have taken on very little leverage

Consumer credit (excl. mortgages) as a share of GDP, 2013



Source: Haver Analytics.

4. **A greater role for equity financing.** Against a backdrop where macro and corporate leverage is high in absolute terms, we see equity financing, from a top-down perspective, as a sensible path for China to: 1) reduce system-wide debt/equity ratios, and hence lower systemic risk; 2) bolster capital to support capital-intensive growth (e.g. FAI) as the cost of funding stays high and credit availability is tight, especially for the private sector; 3) facilitate further capital market liberalization, given the still-low market-cap-to-GDP ratios, low equity ownership from institutional investors, and low new equity issuance for China in a global context; 4) enhance corporate governance and possibly operational efficiency of Chinese corporates through instilling a better capital structure and incentive system for stakeholders.

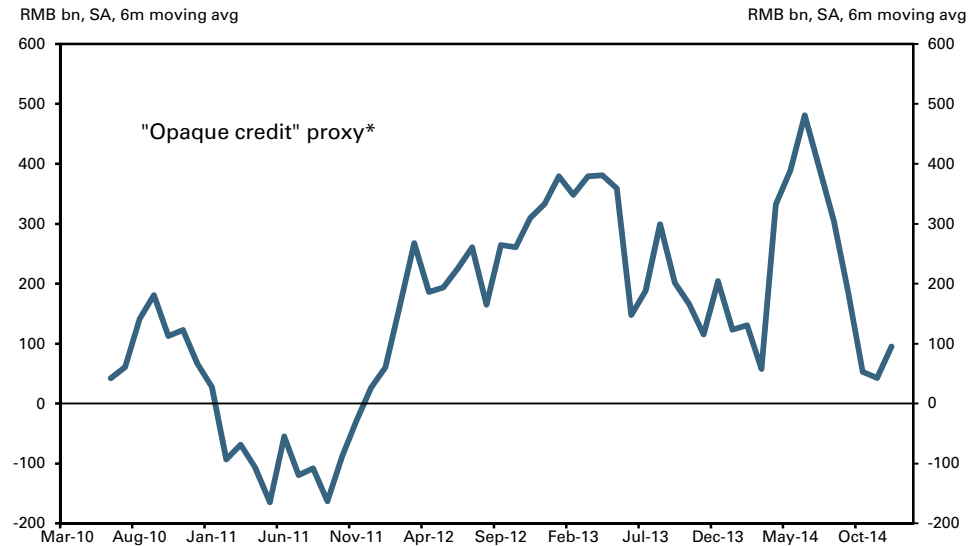
Overall, we expect supportive policies to drive the continuing development of the equity market. Key areas include the potential expansion of the Stock Connect scheme to Shenzhen, reforms regarding the application and listing mechanisms of A-share primary issuance, financial products innovation (e.g. derivatives, REITs), and further liberalization and diversification of equity investor channels (insurer, pension money).

5. **Better control of non-standard credit growth.** As discussed above, we believe that smaller companies have been “crowded out” of the bank credit market, and this has led to a sharp increase in the riskier shadow banking products such as trust and entrust loans. This can be seen in the growth of non-standard credit (i.e. credit intermediated and funded by banks but not on banks’ loan books). These types of credit often fall outside of regulatory oversight and are typically directed to higher-risk borrowers.

In addition to contributing to overall systemic risk, non-standard credit has the potential to complicate monetary policy. For example, the sharp tightening in interbank liquidity in the second half of 2013 was presumably intended, in part, to limit the growth of non-standard credit. Following the introduction of stricter bank regulations in mid-2014, non-standard credit growth has subsided more decisively (Exhibit 30). Limiting the expansion of non-standard credit could improve

transparency and reduces overall risks in the financial system; however, the benefits should be balanced against the risk of further constraining access to funding for smaller companies.²⁸

Exhibit 30: Transparency improving with a significant moderation in “opaque credit”



* Credit that is effectively intermediated/funded by banks but not booked as bank loans; proxied by gap between increases in M2 and bank loans, adjusted for effects of fiscal deposits and FX inflow.
Source: PBOC, Goldman Sachs Global Investment Research.

6. **Breaking moral hazard.** In our view, moral hazard is one of the most important issues contributing to China’s credit buildup. The propensity of creditors to lend to companies with implied government support reduces the efficiency of credit allocation. To improve the flow of credit and ensure that sufficient credit is directed towards underserved areas, these implied guarantees need to be removed or at least more tightly defined and restricted. While this change could cause a credit market dislocation if made too quickly, thereby increasing risk of a ‘hard landing,’ a gradual move toward market-determined credit pricing is essential to direct capital to needed areas.

Ensuring borrowers use credit wisely

While most of the reform measures identified above relate to lenders, there are several measures designed to help borrowers use credit more effectively that are equally important:

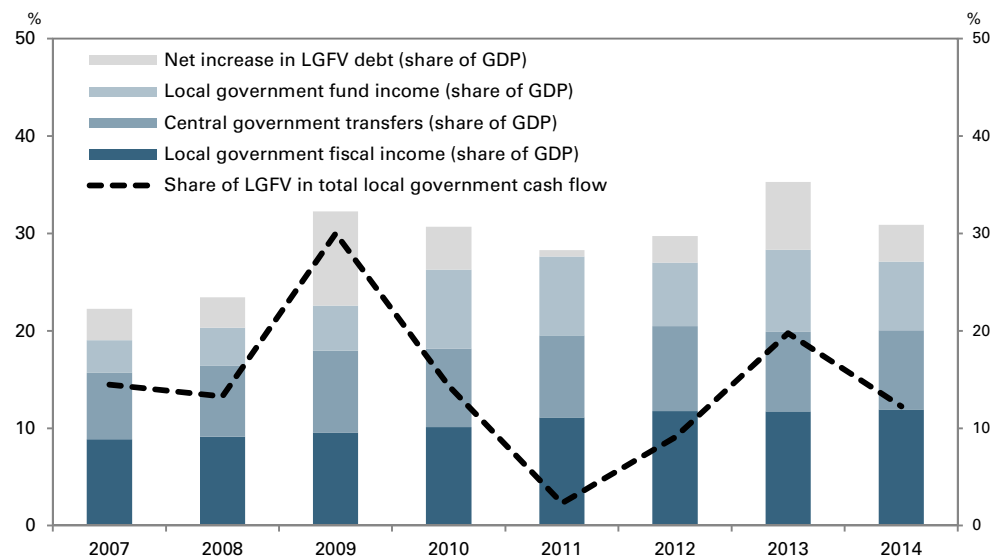
1. **Greater transparency in local government financing.** Since the GFC, local governments have been burdened with significant fiscal outlays to help maintain growth, without the corresponding ability to access funding markets. Accordingly, they became reliant on local government financing vehicles (LGFVs) to fund their capital spending. As these vehicles are not technically government entities but are presumed to be backstopped by the related governments, they represent a significant source of moral hazard. We estimate that the outstanding amount of

²⁸ For a longer discussion, see Tang, “China: The shadow or the cycle—the easing in interbank rates to stay?” Goldman Sachs Economics Research (March 2014).

LGFV indebtedness is Rmb21 tn, representing 13% of the total debt stock (see Exhibit 31).

To address this problem, in October 2014 the State Council announced a new set of guidelines to strengthen the supervision and management of local government borrowings. The guidelines require, among other things, that local governments raise debt under pre-approved quotas and cease all LGFV financing activities. How quickly the impact will be felt depends on the speed of the implementation; we believe these guidelines will represent a gradual reduction in moral hazard risks.

Exhibit 31: LGFVs have been an important income source for local governments
Sources of local government funding in China



Source Note: Most of local government fund income comes from land sales revenue. 2014 data in the chart are based on 2014 fiscal budget; actual outcome is not released yet.

Source: MOF, WIND, Gao Hua Securities Research, CEIC, Goldman Sachs Global Investment Research.

- 2. Reform of the SOE sector.** The State-owned Assets Supervision and Administration Commission (SASAC) announced in July 2014 that six SOEs have been selected for a pilot program to deepen mixed ownership reform, with the aim of increasing private ownership in SOEs. Our equity strategists believe that the new round of reforms will lower the state's operational interference.²⁹ The SOE sector is an important source of moral hazard risks today, as many SOEs carry strong implicit government support for their debts.

Reform will benefit from a clearer framework for bankruptcy and restructuring of unprofitable SOEs. For example, as we have noted in earlier research, policymakers may want to identify which sectors are systemically important and require full state-ownership, which ones will allow mixed ownership, and which ones are encouraged to become fully privately owned. In addition, for over-levered

²⁹ See Liu, Bei and Moe, "Highlighting the industry/regional impact of China SOE reform," Goldman Sachs Portfolio Strategy Research (June 2014).

entities that will not benefit from state support, an orderly process will be needed to handle their debts.³⁰

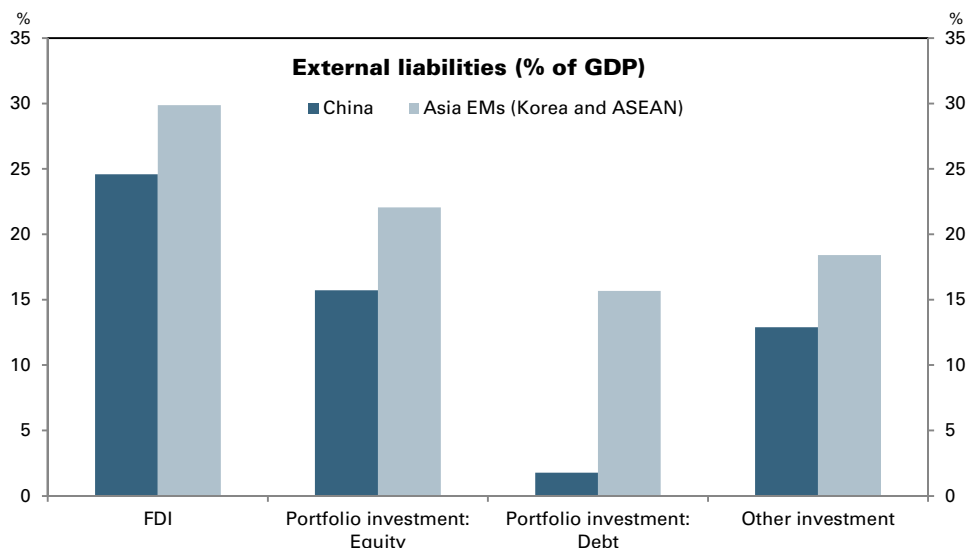
- Increased participation of foreign firms.** Foreign participation could increase industry-level competition and innovation in certain industries. Foreign capital can also address some of the issues highlighted above, by introducing mixed ownership in SOEs, providing a source of equity financing, and directing capital to the more efficient but less well-capitalized parts of the economy. There are many avenues for this to be achieved including the relaxation of existing foreign investment regulations, the implementation of bilateral treaties (such as the US-China BIT) and the further use of Free Trade Zones.

Accessing foreign sources of capital

Increasing foreign participation in China’s financial markets has a number of potential benefits – although there are also accompanying risks, as we discuss later. Accessing foreign capital can diversify funding sources and funding risk, introduce best practices from different markets, and instill better market discipline:

- Diversification of funding and risk.** The potential benefits from greater foreign participation in the Chinese equity and bond markets are clear (see Exhibit 32). For the bond market in particular, more foreign capital inflows would help to support the local government debt reform process, which will likely require local governments to access most debt financing through the bond market. More broadly, external financing can help to diversify domestic financial risks to the global markets, removing some of the burden on domestic financial institutions to finance Chinese growth.³¹

Exhibit 32: Large scope for domestic bond market to benefit from foreign participation



Source: Bloomberg, Goldman Sachs Global Investment Research, Haver Analytics.

³⁰ See Ho, Tang and Himmelberg, “China SOE reforms and the impact on China IG SOE credits,” Goldman Sachs Credit Strategy Research (July 2014).

³¹ Prudent use of financial innovations can also aid in the diversification of risks. Examples include securitization that can provide a channel to repackage credit risk, high yield debt securities that allow a wider range of borrowers to tap the formal bond market, and the use of credit default swaps to help financial institutions to manage their credit risks.

2. **Differentiated credit expertise.** As we have noted above, SMEs and consumers are both underserved by the credit markets, partly due to lenders' preference for lending to state-related sectors, and in part due to the banking sector's preference for collateralized lending, particularly against real estate. Building expertise in consumer credit (especially mortgage lending) and SME lending (including cash flow based lending and rural financing) will take time, and this is an area where foreign participation may help. Foreign capital can be a source of funding to segments that domestic financial institutions are currently less well equipped to handle; it can also introduce expertise including underwriting standards and risk management practices.
3. **Improved market discipline.** Removing moral hazard will mean introducing more market-determined pricing of credit, with several important shifts from current lending practices. It means that credit assessment will be based more on standalone credit metrics, rather than perceived government support. In our view, introducing more foreign participation will introduce better market discipline, as foreign lenders are likely to be more comfortable lending based on underlying credit fundamentals and less sensitive to perceived government backing.³²
Stronger capital inflows. Measures to introduce greater FDI, including via the US-China BIT, can encourage foreign lenders to provide more credit in China. Initially, foreign lenders may be more comfortable lending to their existing clients looking to invest in China, but as their lending operations become more established, this can provide a base for them to extend further credit to a broader range of borrowers.

Managing the risks of reform and liberalization

Reform and liberalization of China's financial system is not without risks. Domestically, the transition (even if only partial) from a system of government control and support of lending to one of increased focus on underlying business fundamentals requires a significant reorientation and repricing of risks by lenders, which is unlikely to occur completely smoothly. Further opening to foreign capital flows increases the potential for global shocks to be transmitted onshore, or for contagion where failures of foreign lenders could negatively impact domestic lending. There also may be concerns that opening to foreign lending reduces authorities' ability to control the overall pace of credit growth.

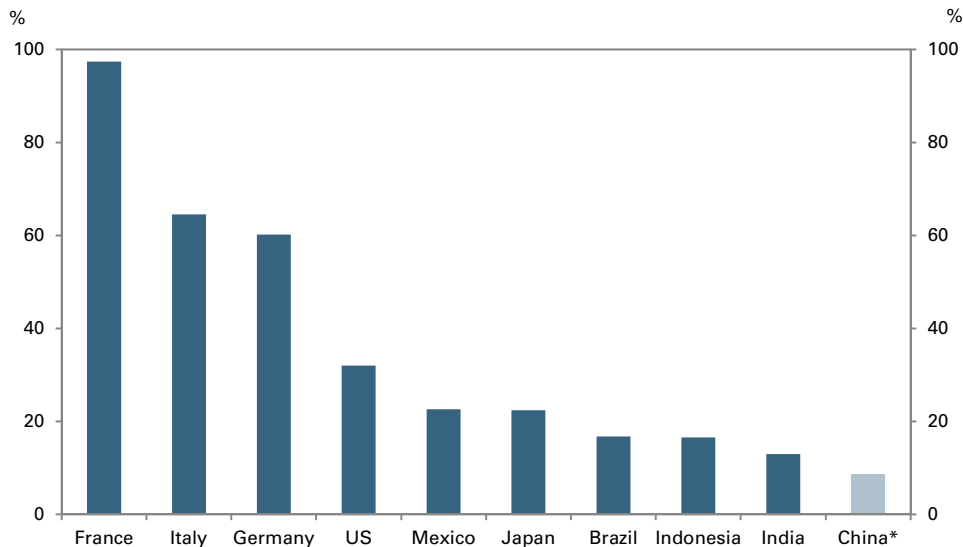
1. **Removal of implicit guarantees / introducing credit risk.** The transition—even if only a partial one—from a system of government guarantees and support for favored enterprises to a system where firms must stand alone on their own business fundamentals has the potential to be rocky. The default of entities previously thought to be “safe” poses the risk of a seize-up in liquidity, as the fall of Lehman Brothers in the United States so dramatically demonstrated. While an event of this magnitude seems highly unlikely to us, even smaller steps meant to move towards an era of more credit differentiation can cause markets to reassess their risk exposures and generate a broader tightening in liquidity and credit conditions.
2. **Increased exposure to global shocks/contagion.** As noted previously, foreign capital can bring benefits. But sourcing capital externally can also make it easier for global shocks to be transmitted to China. In this context, the rapid build-up of China's

³² A concrete example of the different mindset can be seen in how local and international credit rating agencies differ on their rating approaches. Chinese domestic credit rating agencies base their ratings heavily on implicit government support, which explains why LGFV bond issues are given high credit ratings; the international credit rating agencies adopt a different approach, where they assess the standalone credit risks before factoring in any potential government support.

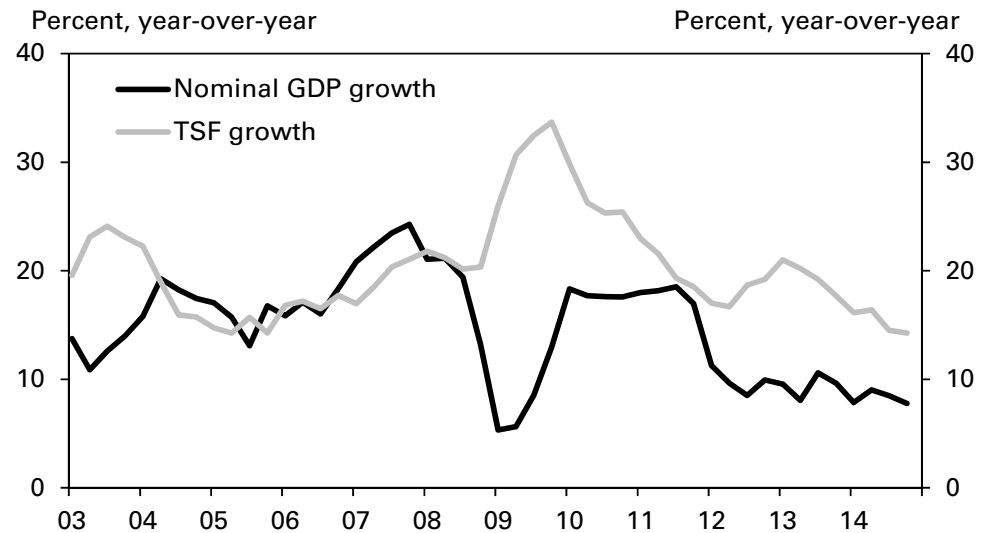
external debt has drawn considerable investor attention. External debt in China (based on BIS data) has increased more than 500% over the past five years, though the level of external debt remains relatively low in an international context at about 8½% of GDP (Exhibit 33). This largely reflects the still-restricted capital account, under which repatriation of offshore borrowing back for onshore use is subject to close monitoring and approval processes. It also illustrates that inviting more foreign capital inflow does not necessarily require a more liberalized capital account — indeed we do not think a free Chinese capital account will likely materialize within the next few years. If any increase in foreign investment is allowed through an expansion of the existing restricted or quota-based channels, such as QFII, the domestic system should still remain shielded from excessive external volatilities. Related to the point above is the risk of contagion: the risk that if one foreign lender fails, it may have implications for the broader credit market in China.

3. **Potentially decreased control over leverage growth.** The pace of total social financing (TSF) growth, which we use as a proxy for overall credit growth in China, has been moderating in recent years. Further slowdown of TSF towards nominal GDP growth rates should be an indication that credit is being directed to more productive and less credit intensive sectors (Exhibit 34). Increasing foreign participation could complicate this transition towards slower credit growth, as it would allow additional sources of credit into the economy.

Exhibit 33: China’s foreign borrowing still looks cautious in an international context
External debt as percent of GDP



* 2014 Q3 reported by SAFE
Source: BIS, IMF, China State Administration of Foreign Exchange (SAFE).

Exhibit 34: TSF growth slows towards nominal GDP growth

Source: PBOC, NBS.

As noted in our recent work on China's credit challenges, Chinese policymakers have become more sophisticated in their approach toward reining in excess credit by introducing more targeted measures, and they have made some progress toward reducing excessive credit flow.³³ Careful attention to overall leverage growth and its composition will be an important antidote to the risk factors highlighted above. Indeed, the current Chinese leadership is already very attentive to these issues. Rather than monetary policy, prudential measures (such as recent efforts to identify and curtail local governments' off-balance sheet borrowings) may be the most appropriate tools for dealing with existing or emerging risks.³⁴ The risks associated with further financial diversification highlights the importance of ensuring that regulatory oversight keeps pace with financial reforms.

An opportunity worth the challenge

Financial sector reform, including calibrated liberalization of the capital account, can help China to manage the multiple economic transitions we discussed in Part 1 of this report. It can support continued robust investment by tapping new sources of capital, both domestic and foreign, via greater development of corporate and municipal bond markets and the equity market, for example. Reform can also help direct that capital to the most productive investments by providing well-regulated alternatives to bank-intermediated credit, and by encouraging a shift away from implicit government guarantees towards differentiation of credit risks based on underlying fundamentals. These new opportunities will often arise outside the export-oriented manufacturing sectors that have been the historical focus of much investment (including FDI) in China. Policymakers have concerns over the risks and potential loss of control associated with financial reform. But this is not a reason to avoid reform, only to ensure that its pace is appropriately calibrated and that prudential and regulatory backstops are put in place to ensure its ultimate success.

³³ See Tilton, Ho, Tang, et al., "Untangling China's credit conundrum: Deleveraging after a credit boom requires years of adjustment," Goldman Sachs Economics Research (January 2015).

³⁴ See Himmelberg, "Macroprudential policy and prospects for a 'Greater Moderation'," Goldman Sachs Economics Research (June 2014).

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