



FRANKLIN TEMPLETON  
INVESTMENTS

# GLOBAL MACRO SHIFTS

ISSUE 2, JULY 2015

## CHINA: SEARCHING FOR A NEW EQUILIBRIUM

with Michael Hasenstab, Ph.D.



# Contents

---

Overview	2
Global Environment	4
China: A Rebalancing Game	6
The Shrinking Side of China	8
Turning a Challenge into an Opportunity: The Lewis Turning Point	15
Longer-Term Dynamics	21
The Outlook: Where Do the Upside and Downside Shocks Leave Us?	27
Risks	28
Conclusion	35

---

# Global Macro Shifts

## China: Searching for a New Equilibrium

---



**Michael Hasenstab, Ph.D.**

Executive Vice President, Portfolio Manager, Chief Investment Officer  
Templeton Global Macro

Global Macro Shifts is a research-based briefing on global economies featuring the analysis and views of Dr. Michael Hasenstab and senior members of Templeton Global Macro. Dr. Hasenstab and his team manage Templeton's global bond strategies, including unconstrained fixed income, currency and global macro. This economic team, trained in some of the leading universities in the world, integrates global macroeconomic analysis with in-depth country research to help identify long-term imbalances that translate to investment opportunities.



**Sonal Desai, Ph.D.**  
Senior Vice President,  
Portfolio Manager,  
Director of Research  
Templeton Global Macro



**Calvin Ho, Ph.D.**  
Vice President, Senior Global  
Macro & Research Analyst  
Templeton Global Macro



**Hyung C. Shin, Ph.D.**  
Vice President, Senior Global  
Macro & Research Analyst  
Templeton Global Macro



**Kang Tan, Ph.D.**  
Senior Global Macro &  
Research Analyst  
Templeton Global Macro



**Diego Valderrama, Ph.D.**  
Senior Global Macro &  
Research Analyst  
Templeton Global Macro



**Attila Korpos, Ph.D.**  
Research Analyst  
Templeton Global Macro

# Overview

---

This edition of Global Macro Shifts takes a deep dive into China. We find that most observers tend to fall into one of two camps on China: the die-hard skeptics and the perma-bulls. The skeptics are convinced that nothing about China—from the data to the banking system to the demographics—bears close inspection. This school of thought argues that the official numbers are too unreliable to follow, and the imbalances too large to warrant detailed analysis. Skeptics envision an implosion of the Chinese economy, resulting from a bubble in the housing market, in local government debts, in the stock market—or frequently in all three. In their view, the collapse is impending, and has been for the last 10 years. The smaller group of China bulls takes an extremely benign view of the country's transformation. This group expects the China growth miracle to continue smoothly, with any moderation lasting only temporarily. This camp tends to shrug off concerns about imbalances, arguing that China has more than enough money, the right policies in place and an unparalleled control over its economy.

In this paper, we try to take a few steps back and provide an objective assessment of where the Chinese economy currently stands, where we see it going and what risks we foresee in the period ahead.

We take a more nuanced and balanced view than either the die-hard skeptics or the perma-bulls. On balance we remain optimistic about China's outlook, but we recognize that the country faces formidable policy challenges and substantial risks that bear close monitoring.

China today has reached a crucial juncture in its ongoing deep economic transformation. Its three traditional engines of growth have all stalled at the same time: The real estate sector is contracting after a protracted boom; local governments needing to deleverage have scaled back their investment; and many components of the manufacturing sector have been shrinking.

However, growth in consumption driven by rising wages, growth in the service sector and new infrastructure investments work to offset the simultaneous contraction of these other three sectors. The manufacturing contraction has been triggered by the Lewis turning point: a demographics-driven deceleration in labor force growth, which has boosted wage pressures, undermining the competitiveness of traditional export-driven manufacturing. The slowdown in labor force growth, however, means fewer jobs are needed to maintain full employment: an estimated 3 million per year compared to a previous peak of 12 million. The faster growth of the service sector, which has taken over from industry as the leading job creator, is enough to provide them. Therefore, the

contraction in manufacturing, real estate and local governments has not caused an increase in unemployment—which would pose a thorny social and political problem.

Rising wages and sustained employment have allowed household consumption to overtake investment as the main contributor to GDP growth, exactly the type of rebalancing that China needs. Sustained wage growth, however, needs faster productivity growth. Without this, a growing share of the economy will become uncompetitive, forcing China into the “middle-income trap.” Faster productivity growth requires industry to shift toward higher technology and higher value-added sectors. The government has fostered this process through a number of key policies: bolstering the education sector, reforming state owned enterprises (SOEs) to encourage faster private sector growth and incentivizing innovation. The middle income trap has proven extremely difficult to escape, as proven by the few countries that have successfully accomplished this—certainly none as large as China. Nonetheless, China appears to have adopted the correct strategy, and has supported its policies with other long-term reforms, such as capital account and financial market liberalization aimed to improve capital intermediation and thus channel capital to the more productive parts of the economy. Meanwhile, environmental and infrastructure spending will help support longer-term growth prospects internally as well as expand China's global reach, most notably through the new One Belt, One Road initiative.

Significant risks still exist. **First**, monetary policy needs to strike a delicate balance: So far the People's Bank of China (PBOC) is giving just enough support to attenuate the economic slowdown; should growth decelerate further, however, the recent measures to allow local government debt to be swapped for municipal and provincial bonds could turn into a quantitative easing (QE)-style excessive stimulus, undermining the deleveraging and setting the stage for a hard landing. **Second**, over the past decade, China has rapidly accumulated a substantial debt stock, largely in less transparent local government and shadow banking operations. In our estimates, this stock could be as large as 250% of GDP including all the different sources of on- and off-balance sheet debt (i.e., central and local governments, households, and corporates). But, unlike many other countries, China's state has an enormous stock of assets, comprising foreign exchange (FX) reserves and importantly the assets of its strongest SOEs. Additionally, the central government has no foreign debt. These factors help minimize the risk of a classic debt sustainability crisis. However, the deleveraging process might not be smooth, which could trigger problems in the banking or corporate sector, disrupting growth. On the other hand, the deleveraging might be

reversed, which could lead to a continued build-up of debt, still a source of risk. **Third**, the stock market could crash—especially after China’s equity indexes have more than doubled in the last 12 months—posing concern. Though China’s stock market still plays a relatively minor role in its economy, both as a source of capital for companies and as an asset for households, its importance on both sides has increased somewhat. A sudden crash could give a further contractionary shock to growth, and would stall the process of financial sector strengthening and diversification. **Finally**, essential SOE reform needs to overcome powerful vested interests, and could face considerable pushback, increasing the chances of failure.

Overall, based on our detailed analysis, we believe China will remain on course, with GDP growth decelerating moderately toward the 6% mark over the next few years while the economy shifts toward consumption, services and higher value-added manufacturing. This has important implications for the global economy:

- 6%+ growth in China will support global growth, an important factor given the structural fragility of the European recovery and the prospective tightening of US Federal Reserve (Fed) policy.
- Together with the new round of infrastructure investment, this will provide some support to commodity markets. Note, however, that China’s rebalancing from investment to consumption will also reduce demand for most industrial metals. On balance, therefore, our China outlook should be consistent with stable commodity prices in the next few years.
- China’s rebalancing also has a differential impact on trade flows: We should see more trade with advanced economies producing finished and industrial goods, and relatively less with commodity producers. Moreover, the One Belt, One Road initiative and the actions of the newly launched Asia Infrastructure Investment Bank also bear close monitoring because of their potential impact on trade flows over the long term.
- Finally, sustained wage growth implies that China should gradually export a more inflationary push to the rest of the world, reinforcing our view that, starting with the US, the outlook remains for higher inflation rates and higher interest rates.

The rest of this paper is structured as follows. Section 1 offers a quick glimpse of the external backdrop, focusing on the outlook for the US, Europe and Japan; Section 2 outlines the multi-faceted rebalancing currently taking place in China’s economy; Section 3 assesses the ongoing recession in manufacturing, real estate and local governments, and quantifies the potential fallout on growth; Section 4 addresses the challenge of the Lewis turning point, and discusses how China can capitalize on this opportunity; Section 5 turns to the longer-term dynamics, notably on SOE reform and the growing role of the private sector, the nexus of capital account liberalization and FX policy, and the continued need for infrastructure; Section 6 summarizes the analysis of the previous sections into our baseline outlook for China; Section 7 discusses the key risks: monetary policy implementation, debt sustainability and domestic risk asset prices; and we conclude this paper with a summary of our views.

# 1. Global Environment

---

Before we get into the in-depth analysis of China, we would like to take stock of where the global economy stands at the half-year mark of 2015.

## US

Starting with the US economy, which began the year on the wrong foot, we believe the weakness of the first quarter is temporary in nature, mostly due to exceptional factors. US GDP is reported to have contracted by 0.2% in Q1, though there could be revisions to this estimate. The pace of activity was held back by harsh winter conditions, disruptions to ports on the West Coast, reduced energy investment following the decline in oil prices (which subtracted about 0.5 percentage points from Q1 growth), and weaker exports held back by a stronger dollar. Moreover, seasonal adjustment techniques in the official statistics have resulted in Q1 growth systematically reported as much lower than the full-year average.

Both oil prices and the dollar have stabilized; as a consequence, the supply adjustment in energy markets has decelerated: The number of rigs in operation continues to decline but at a much slower pace, and the drag on exports (equivalent to about 0.6 percentage points for every 10% real appreciation) should have largely run its course. Meanwhile, the labor market continues to improve, with new job creation in the non-farm sector running at a 3-month average of about 200,000; the unemployment rate has declined to 5.3%, close to the Congressional Budget Office's estimate of the non-accelerating inflation rate of unemployment (NAIRU).

A tighter labor market has begun to exert pressure on wages. The Employment Cost Index accelerated to 2.6% year-over-year in Q1, the highest pace since 2008; wages and salaries were up 5.0% year-over-year in May. Core inflation has remained stable at close to 1.5%; the base effects from lower oil prices will begin to fade by August, and the recent pickup in oil prices will then gradually push headline inflation closer to core; wage pressures are then likely to translate into more significant price increases over the remainder of the year and into 2016.

Overall, these data make us confident that the US recovery remains on track. This in turn should lead the Fed to hike interest rates later this year, most likely in late Q3 or in Q4. Financial markets have begun to anticipate the likely move, with 10-year Treasury bond yields rising from about 1.64% at the end of January to about 2.35% by the end of June. Markets are, however, pricing a slower pace of monetary policy tightening than the Fed itself has indicated. While the central bank will likely start tightening at a slow pace, it might need to move faster once inflation pressures build up; this would imply an even larger disconnect from current market expectations.

## Europe

Eurozone growth has surprised on the upside in Q1, as we had predicted in our previous Global Macro Shifts publication. At +0.4%, Q1 marked the 8th consecutive quarter of positive quarter-over-quarter (qoq) growth. The pickup in economic activity has been spurred, most importantly, by a weaker euro, which has boosted the competitiveness of eurozone exporters. QE by the European Central Bank (ECB) also helped, by reducing funding costs and pushing more liquidity into the banking system. Recent indicators suggest that positive momentum persists: Purchasing manufacturers index, retail sales and lending indicators all remain on an uptrend.

Though most of the eurozone has seen a broad-based pickup in activity, the sustainability of this varies across countries. Spain, for example, has been outperforming on the back of its reforms and the efforts made to put public finances on a sounder footing. Germany maintains strong international competitiveness, currently buttressed by a healthier domestic demand. Germany's trade surplus runs at about 7% of GDP, proof of its enduring export prowess. In France and Italy, however, the acceleration seems more cyclical in nature; both countries need a more determined reform effort to accelerate growth on a more sustainable basis.

The recently launched QE program has successfully begun inverting the previous contraction of the ECB's balance sheet, which shrank by as much as one third from its peak. Together with existing programs for the purchase of covered bonds and ABS,<sup>1</sup> QE has boosted the central bank's balance sheet by about €200 billion (bn), compared to a target of about €1.1 trillion (tn) as of June 30. Some analysts and market players have speculated that the ECB might abandon its QE program in the near future, given the stronger-than-expected pace of growth. ECB President Mario Draghi, however, has repeatedly emphasized that the bank intends to carry out its program at least until September 2016, and that in any event it would need convincing evidence that inflation is converging to its 2% target in a sustainable way before considering a policy change.

The Greek saga remains the main cloud on the horizon of the European recovery. Greek voters rejected the latest creditors' proposal in a referendum held on July 5. The referendum asked voters to either accept or reject the latest economic program that resulted from six months of difficult negotiations with the European Union, ECB and International Monetary Fund (IMF). Eurozone leaders had warned that a "no" vote would most likely result in Greece exiting the eurozone. While negotiations are expected to resume, the risk of "Grexit" has substantially increased. Rather than predicting the outcome of these discussions, we prefer to focus on the possible consequences of the worst-case scenario. Should Greece leave the euro, we believe this would cause a

temporary shock to financial markets, with peripheral spreads widening in the eurozone, and a spike in global risk aversion. We are also confident that the eurozone's current firewalls are strong enough to limit contagion, so that the adverse impact should be limited and temporary in scope.

## Japan

Japan appears to be finally succeeding in its struggle against deflation. Core CPI is running at about 2%, even subtracting the impact of tax hikes. Even the collapse in oil prices has not been enough to push the country back into deflation, and nominal GDP growth remains on a healthy uptrend. Japan's success in keeping inflation in positive territory is especially remarkable given the extremely adverse external environment, where many countries have experienced deflationary pressures. This constitutes very encouraging evidence that the "first arrow" of Abenomics, namely a much more decisive QE push, has proved effective.

The positive impact of Abenomics can be seen on output growth: GDP expanded faster than expected in Q1, at over a 2% qoq seasonally adjusted annualized rate. Inventory accumulation played an important role, but there were also encouraging signs of a rebound in both private consumption and capital expenditures. Moreover, output prices have been running significantly above input prices, indicating that profitability will likely improve, which would support the outlook for a further pickup in investment. Last year's tax hike, therefore, has not stopped the recovery, contrary to what a number of analysts feared, especially given that a tax hike derailed Japan's attempt to exit deflation in 1997. This tax hike, the cornerstone of the fiscal strategy, therefore, was a calculated but courageous gamble—and has paid off. This should be considered as another major success of the government's policy: The "second arrow," a prudent fiscal policy, promotes confidence in long-term debt sustainability.

The "third arrow," structural reforms, remains the most important part of the equation—and has been the focus of most questions and skepticism since the launch of Abenomics. In this area, some important progress has already been made. On the financial side, the portfolio rebalancing of the Government Pension Investment Fund has begun spilling over to other institutions, such as Japan Post and the public employees' pension funds. Probably more important are efforts to strengthen corporate governance through improving transparency and encouraging a more active role by shareholders and corporate boards.

Japan's productivity, after running at about 3% in the 1980s and about 2% in the 1990s, now languishes at a mere 1%. Weak corporate management practices and the ensuing inefficiencies are the main culprits for this productivity slowdown. Japan must boost nominal GDP growth on a durable basis to guarantee the sustainability of its massive debt burden. Besides a permanent rise in the inflation rate, this requires stronger overall real GDP growth. This must be achieved in the face of intensifying demographic pressures, as Japan's population will continue to age rapidly in the coming decades. Government programs to boost the labor force, in particular by raising female participation, can help, but will not fully offset the impact of aging. To achieve stronger real GDP growth therefore, Japan must achieve faster productivity growth, importantly requiring a strengthening of corporate governance. Japan has therefore adopted a new corporate governance code, which formalizes explicit responsibilities for corporate boards to scrutinize management and communicate information to shareholders, and requires every board to have at least two external directors. Much more work will be needed to increase flexibility and boost productivity, but the measures already taken confirm that the government realizes that it must attempt to tackle the toughest reforms, even if this means clashing with powerful vested interests.

## 2. China: A Rebalancing Game

China's economy has shifted down a gear. The slowdown from the 10%+ growth rates maintained for three decades to about 7% aligns with the government's own plans. The authorities recognize the slowdown as both unavoidable and healthy, and consistent with a rebalancing of China's growth engines away from investment and toward consumption.

Recently, however, signs of growth slowing below the government's target have surfaced. This has triggered renewed warnings that the economy could soon suffer a hard landing, made inevitable by the imbalances and weaknesses accumulated in key sectors of the economy.

We hold a different view. Three important sectors of China's economy are undoubtedly suffering from a serious contraction: traditional manufacturing, real estate and construction, and local government finances and infrastructure spending. Taken together, these three sectors are probably experiencing a true recession.

The simultaneous contraction of these three key sectors is, paradoxically, serendipitous. Even as these contractions occur, China's economic rebalancing will allow new engines of growth to kick in:

- Rising wages, pushed also by population aging and a corresponding slowdown in the growth of the labor force, support stronger domestic private consumption on the demand side.

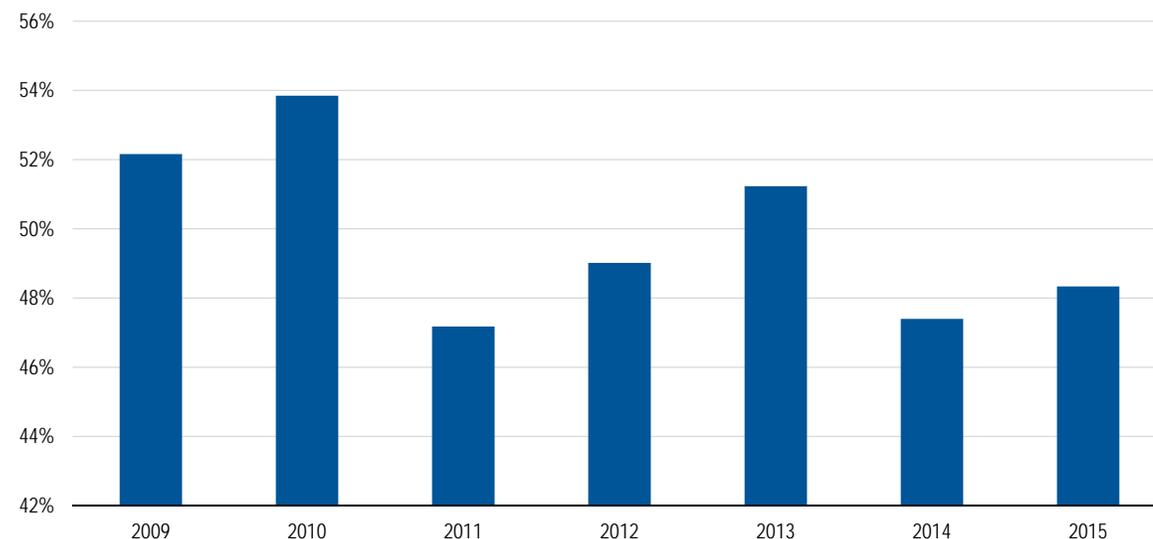
- Manufacturing has begun to shift toward sectors characterized by higher technological content and value added. This can fuel faster productivity growth in industry, which in turn will support stronger wage growth while safeguarding global competitiveness. China had already become the largest industrial robot market in 2013 according to the International Federation of Robotics.

- The services sector has begun to account for a greater share of the economy. This has two advantages. First, an expanding service sector can support job creation, offsetting the contraction in construction and the slowdown in manufacturing. Second, some services can support stronger productivity growth.

- Even as the residential construction boom peters out, a huge need for infrastructure exists in the areas of roads, railways and environmental protection. Despite the rapid pace of construction in recent years, China only has 112 thousand kilometers of rail—about half of what the US has, while the countries are roughly the same size. Over 133 Chinese cities have populations of more than 1 million but only 22 have subway or rapid transit systems. Environmental protection facilities are massively underdeveloped, as any pollution statistic shows. New investment for decreasing pollution in water, air and land will be required.

### Since 2009, Daily Pollution Levels Have Been Unhealthy or Higher 50% of the Time

Exhibit 1: Beijing: Percent of Days with Unhealthy Air Quality (AQI >150) 2009–2015



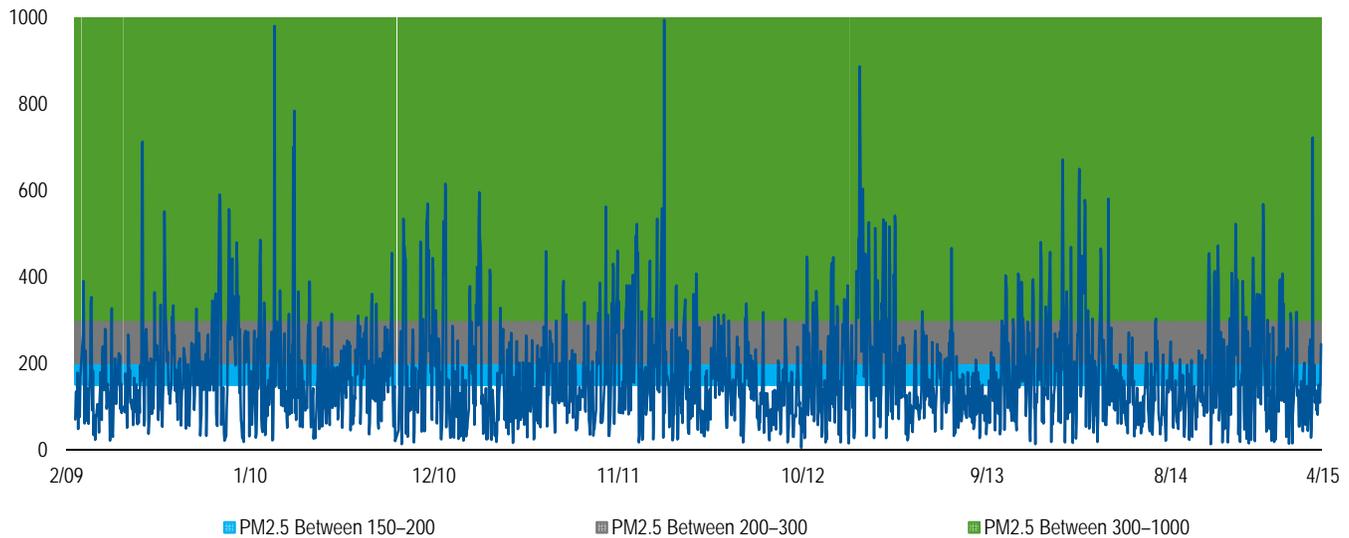
Source: Calculations by Templeton Global Macro with data sourced from US Department of State, US Embassy, Beijing, China. State Air observational data are not fully verified or validated; these data are subject to change, error, and correction.

## China's Pollution Levels Show the Country's Need for Environmental Facilities: Air Quality Levels Above 200 Are Considered Very Unhealthy

### Exhibit 2: Beijing Air Quality Index

February 2009–April 2015

Beijing Air Quality Index (Daily PM2.5,  $\mu\text{g}/\text{m}^3$ )



Source: US Department of State, US Embassy, Beijing, China. State Air observational data are not fully verified or validated; these data are subject to change, error, and correction.

In particular, the more rapid growth of the service sector—supported by stronger domestic consumption—is creating enough jobs to cover the (slower) growth in labor supply. The contraction in manufacturing, real estate and local governments therefore does not result in higher unemployment.

This rebalancing leverages the turn in demographic conditions, attempting to transform the challenge of the Lewis turning point into an opportunity. Three sets of policy actions support this effort:

1. Reforms aimed to improve the competitiveness of China's manufacturing. These include gradually reforming SOEs, bolstering the education system with an emphasis on science and engineering, and incentivizing home grown innovation and technology development.
2. Reforms aimed at supporting consumption include strengthening the pension system and the health care system—with coverage already extended to 95% of the population—so as to reduce the need for precautionary savings while raising living standards.
3. Central government investment in the next wave of infrastructure, aimed at accelerating growth in the less-developed regions of China and at extending the country's global reach and integration in the global economy—the One Belt, One Road initiative.

# 3. The Shrinking Side of China

As noted above, the condition of three very important and large sectors of the Chinese economy appears dire. These are also the sectors that have perhaps the highest visibility to international markets because they have been the main engines of growth over the past decade: manufacturing, real estate and local governments. Below we look at each of these sectors in detail to analyze the extent of the weakness, and the potential impact of each on the broader growth of the economy.

## Manufacturing

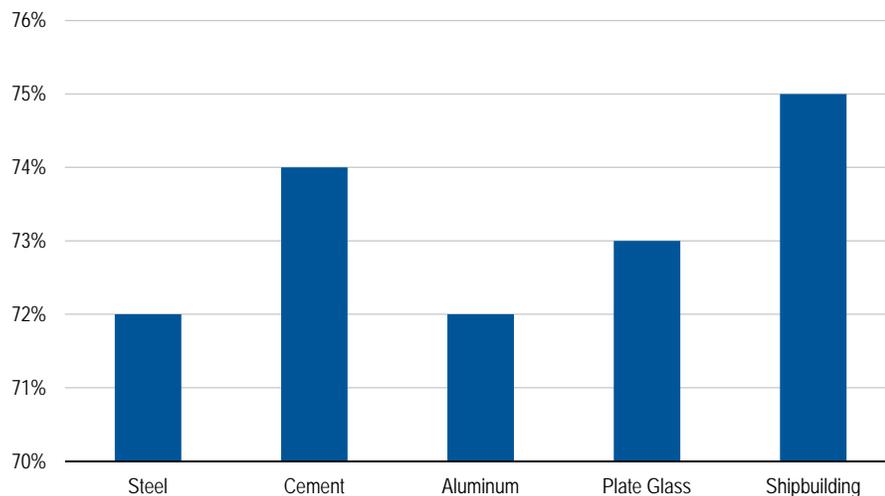
Manufacturing has been a key driver of growth in China, spurred by exceptionally high investment rates. Over the past decades, traditional manufacturing has absorbed the huge labor force flowing in from the countryside, and has leveraged this seemingly endless pool of labor to gain a global competitive advantage in low-cost production. As the main engine of job creation, it benefited from extremely strong investment.

Over time, however, domestic concerns about the extent of overcapacity have increased—especially as rising wages and weaker global growth have reduced demand prospects. As part of the 11th Five Year Plan (FYP), the State Council set targets and timelines for eliminating production capacity in 18 major industries. In particular, regulators focused on energy-intensive and highly polluting enterprises in industries such as raw materials, chemicals and industrial products to meet energy reduction and emissions targets. Specific industries are shown in the chart below.

While policymakers have been concerned about overcapacity since 2005, the problem has actually worsened over the years. As the charts on the next page show, inventories have continued to increase in the industrial sector. The problem has deepened over the last 18 months: Real inventory growth has accelerated since early 2014 and has only begun to adjust over the last few months, while real sales growth has kept decelerating.

## China Plans To Reduce Excess Capacity in Major Industries

Exhibit 3: China: Capacity Utilization of Industries with Severe Excess Capacity  
As of 2012



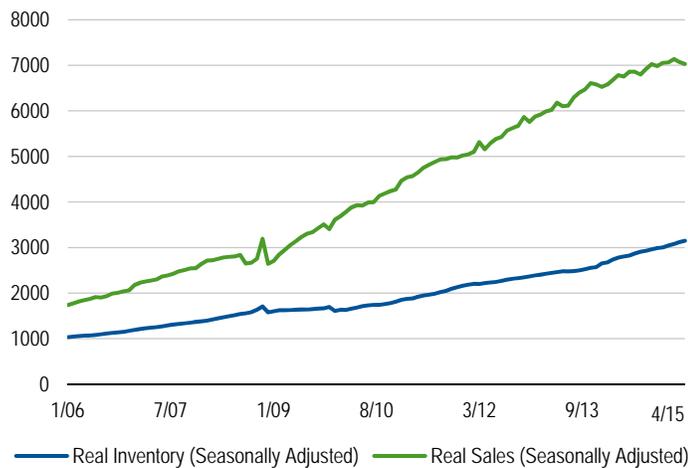
Source: National Bureau of Statistics, China.

## Industrial Sector Overcapacity Has Worsened Since 2014

**Exhibit 4: China: Industrial Sector (Level)**

January 2006–April 2015

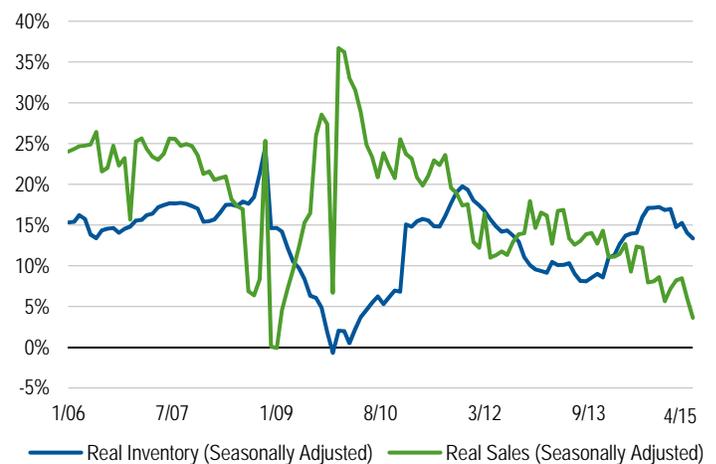
RMB bn (Real), Seasonally Adjusted



**Exhibit 5: China: Industrial Sector (Growth)**

January 2006–April 2015

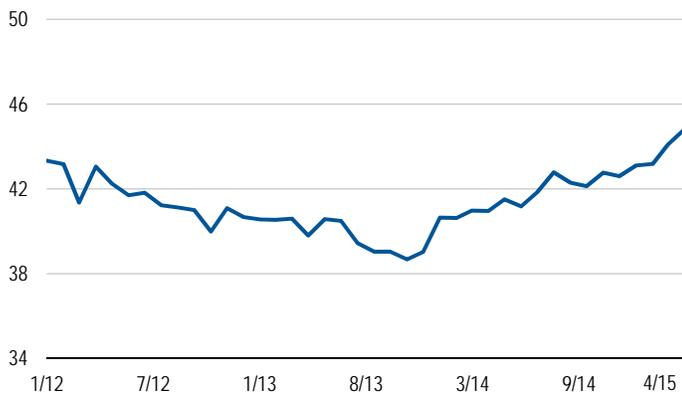
YOY Change



**Exhibit 6: China: Inventory/Sales Index (Industrial)**

January 2012–April 2015

Inventory/Sales Ratio



Source: National Bureau of Statistics, China and FactSet.

We can see from the charts above that the inventory/sales ratio is running above what we would consider a normal-to-low level based on data from the last several years, or a ratio of about 40%.

At the current depressed levels of sales (as of April 2015), this would imply “desired” inventories of  $0.39 \times 7027$  (current real sales level) or RMB 2740.5 bn. The latest inventory levels (April 2015) are RMB 3149 bn. This implies that real inventories would need to decline some 13% from current levels to revert to their recent norms. If sales were to stay flat at current levels, we

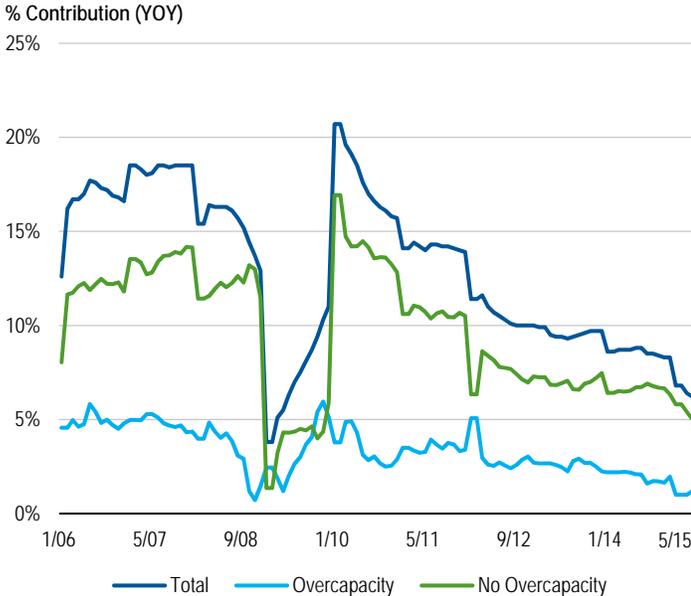
estimate it would take one to two years for the overcapacity to be absorbed. The last time we saw a significant correction in overcapacity was in January 2012 and as the chart above shows, the inventory/sales ratio did not revert to the 40% mark until September 2013.

While overcapacity acutely affects particular sectors, the decline in industrial production has been broad-based, reflecting a wider malaise, as demonstrated on the following page.

## Broad-Based Decline in Industrial Production Has Accelerated

Exhibit 7: China: Industrial Production

January 2006–May 2015



Source: Calculations by Templeton Global Macro using data sourced from the National Bureau of Statistics, China.

Since 2012 industrial production has partly decoupled from GDP (shown in chart above), entering into a sharper decline, even as GDP growth stabilized at its new 7%+ path. The deceleration in industrial production has intensified lately, suggesting that the bottom of the recession in manufacturing has probably not yet been reached. How much further can it go, and how much damage can it inflict on overall economic growth?

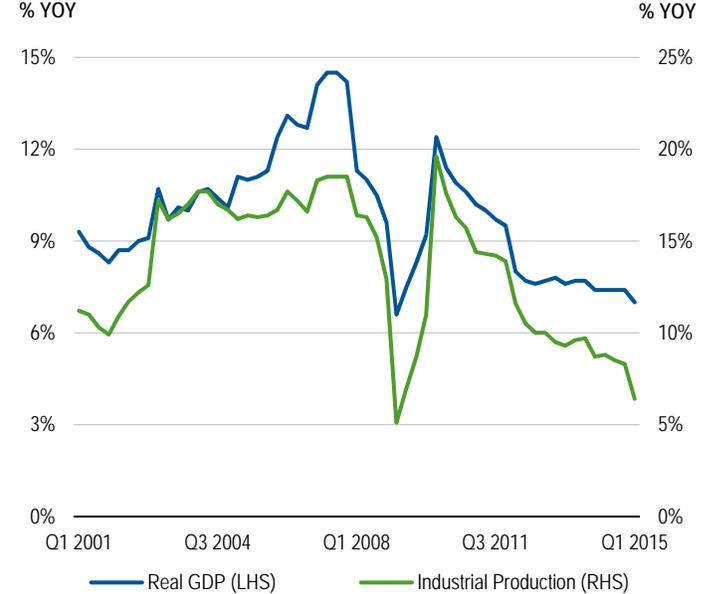
We have attempted to quantify the magnitude of the potential drag from the ongoing manufacturing recession in two ways. First, as a proxy for a potential worst-case scenario, we looked at the global financial crisis, when industrial production growth bottomed at 5.1% year-over-year (yoy). The latest data from May 2015 show industrial production growing at 6.1% yoy. Given that manufacturing has a 35% share in GDP, a further decline to the previous trough in growth rates would result in a 0.4 percentage point reduction in GDP. Second, we estimated a regression between GDP and industrial production; the coefficient from this regression (illustrated to the right) would imply a negative impact on GDP growth of about 0.7%.

We therefore believe that the ongoing recession in the manufacturing sector could detract between 0.4% and 0.7% from GDP growth.

## The Decline in Industrial Production Has Outpaced the Decline in GDP

Exhibit 8: China: Real GDP and Industrial Production

Q1 2001–Q1 2015



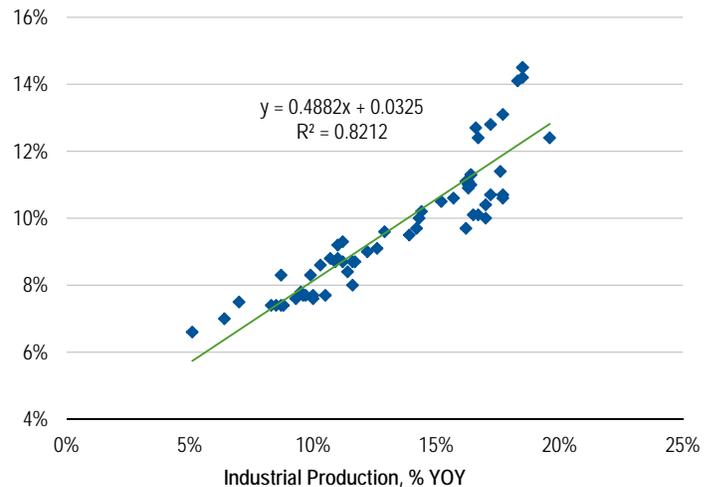
Source: National Bureau of Statistics, China. LHS = left-hand scale; RHS = right-hand scale.

## Declining Industrial Production Diminishes GDP Growth

Exhibit 9: China: Real GDP vs. Industrial Production

Q1 2000–Q1 2015

Real GDP, % YOY



Source: National Bureau of Statistics, China.

## Construction and Real Estate

The importance of construction and real estate to the Chinese economy cannot be estimated as easily. Construction, by itself as the main component of the secondary sector classification, comprises about 6.8% of total GDP, while real estate accounts for 6% of GDP under the tertiary classification, which would suggest a combined weight of 13%.

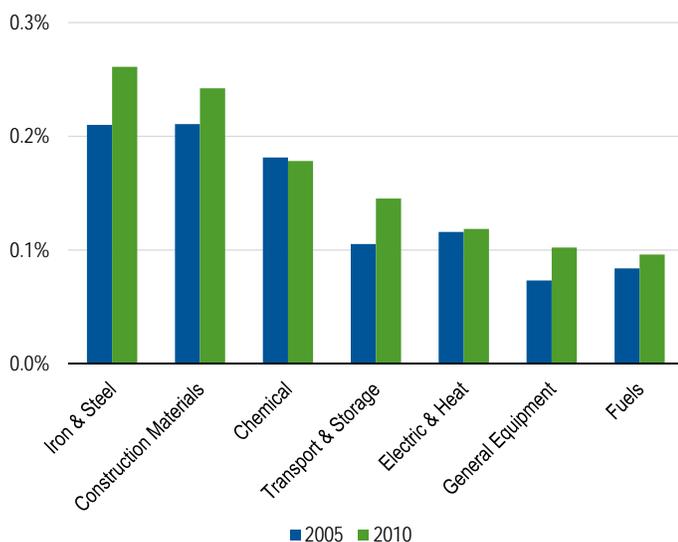
Other estimates, however, give the sector much greater weight. A paper by W. Zhang, G. Han and S. Chan (2014)<sup>2</sup> looks at input-output coefficients for real estate and construction with other sectors of the economy to see if the importance has increased over time. Using the input-output coefficients, they calculate the loss in value added that would be caused by removing real estate and construction from the economy, and obtain an estimate of

30% of GDP (rather than 13% suggested by the value-added approach). We see this as an upper bound in determining the importance of the sector.

With a weight between 13% and 30% of GDP, the contraction of the real estate sector will have a significant impact. To obtain a more precise estimate of the effect, we have run an econometric analysis of the relationship between residential house prices, fixed asset investment (FAI) in real estate and construction, and GDP—illustrated in the charts below. Historically, a 1% fall in average house prices has led to a 1.4% fall in FAI in real estate. Depending on where in the 13%–30% range the weight of the real estate and construction sector in GDP actually lies, we estimate that a 1.4% fall in real estate FAI would cause a drop in GDP growth between 0.2 and 0.4 percentage points.

## The Importance of the Real Estate Sector to GDP Has Grown Over Time

Exhibit 10: Total Input Coefficients for the Real Estate-Construction Sector



Source: Zhang, W., Han, G. and Chan S. (2014) "How strong have been the linkages between real estate and other sectors in China" HKMR Working Paper No. 11/2014.

Exhibit 11: Loss in Total Value Added Caused by Extracting the Real Estate-Construction Sector

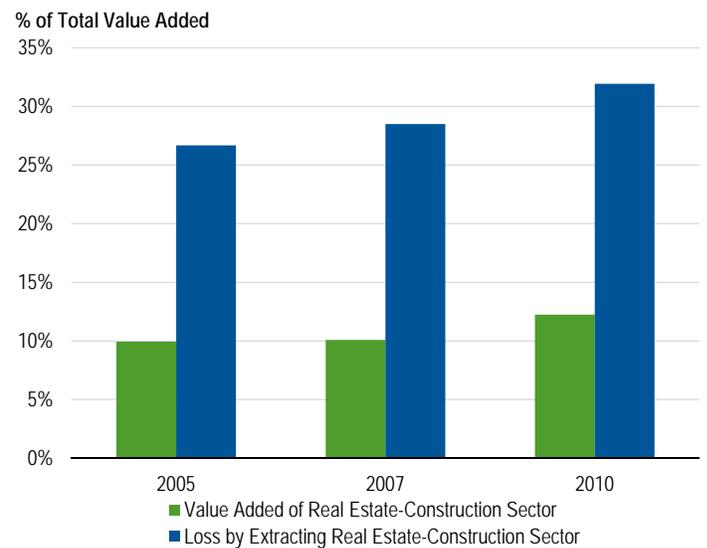
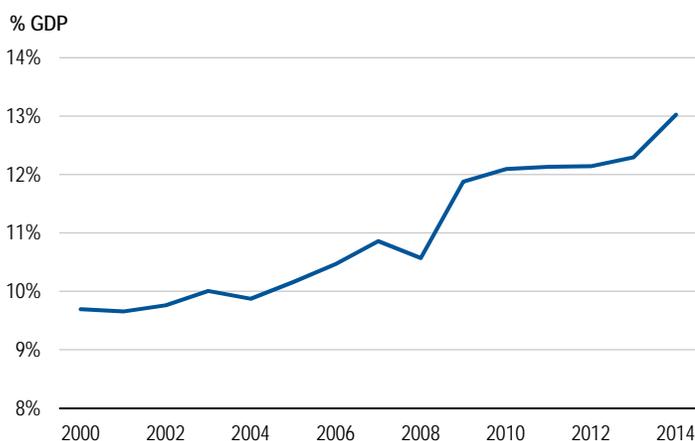


Exhibit 12: China: Construction and Real Estate 2000–2014

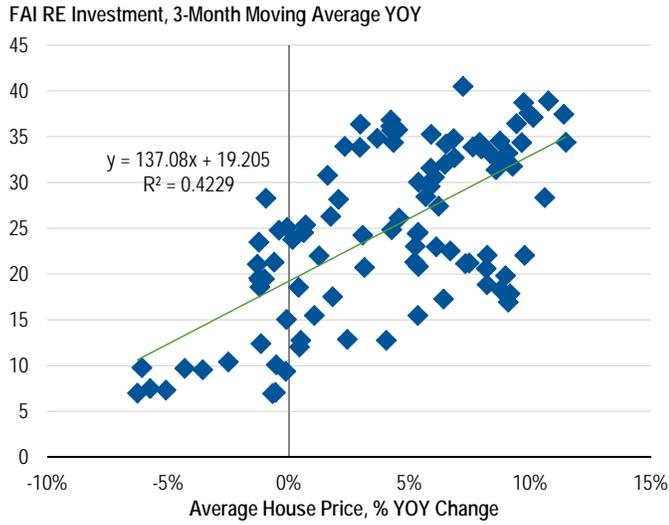


Source: National Bureau of Statistics, China.

## Contraction in the Real Estate Sector Reduces Fixed Investment and GDP Growth

**Exhibit 13: China: Real Estate Fixed Asset Investments (FAI) and House Price**

November 2006–April 2015

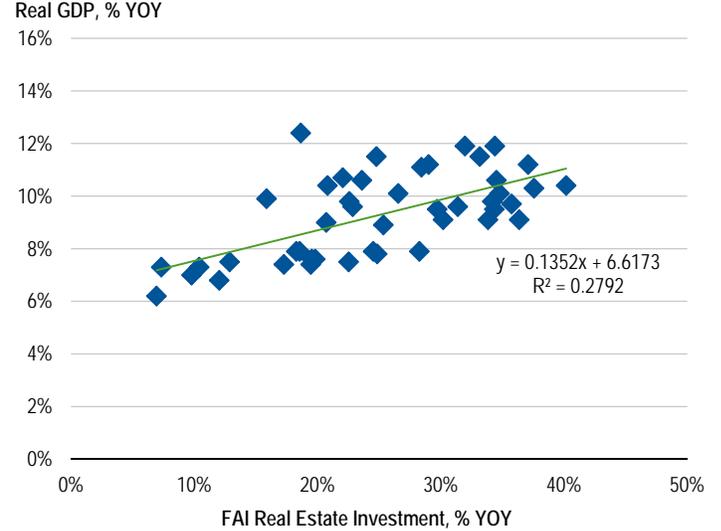


Source: National Bureau of Statistics, China.

Our estimates are broadly consistent with the hypothesis that the slowdown in manufacturing and the adjustment in the real estate sector have been the main drivers of the overall deceleration in China's economy: Industrial production growth has slowed from a peak of nearly 20% in early 2010 to about 6.5%; based on the sensitivity we estimated above, this would translate into a reduction of GDP growth of nearly 5 percentage points. This, by itself, would have been enough to reduce growth from about 12% in early 2010 to about 7%. In addition, the 6% decline in house prices evidenced in the latest statistics would imply a drag on

**Exhibit 14: China: Real Estate Fixed Asset Investments (FAI) and House Price**

March 2004–April 2015



growth in the order of 1.1–2.5 percentage points. In other words, the slowdown in GDP growth could have been even more pronounced, had it not been for the offsetting impact of stronger services growth, which we will discuss in later parts of the paper.

Encouragingly, as the charts on the following page indicate, it appears that prices in the real estate sector have bottomed out, while construction FAI may be stabilizing. This would suggest that any further negative impact on growth from the real estate sector should be limited.

## Housing Prices Appear To Have Reached Bottom

Exhibit 15: China: Average Residential House Price  
June 2012–May 2015

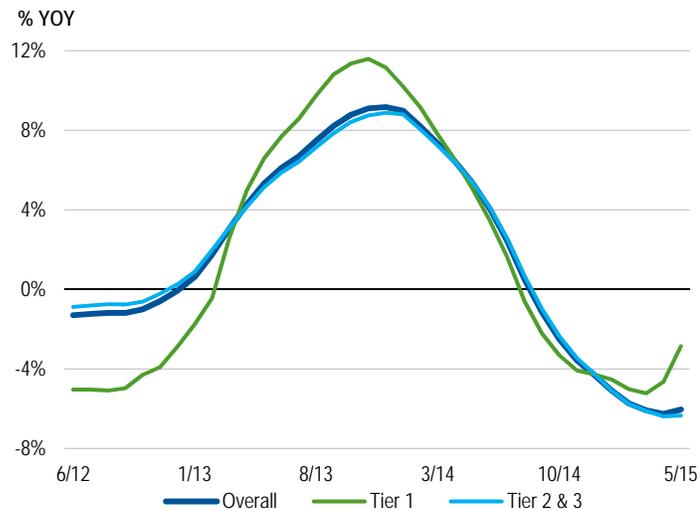
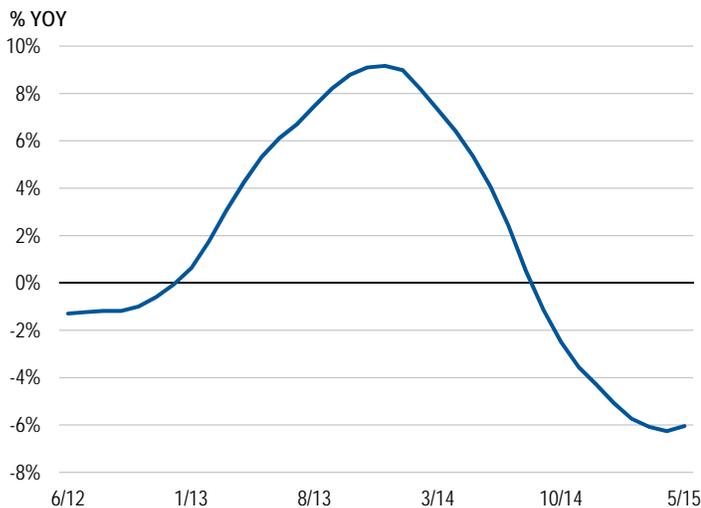


Exhibit 16: China: Average Residential House Price  
June 2012–May 2015



Source: National Bureau of Statistics, China.

Exhibit 17: China: FAI Real Estate  
January 2006–April 2015



Source: Calculations by Templeton Global Macro using data sourced from the National Bureau of Statistics, China.

## Local Governments

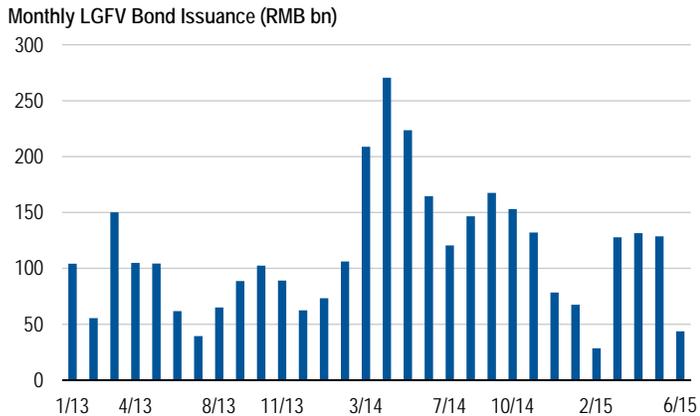
The real estate adjustment also impacts the third sector facing serious headwinds: local governments. Local governments carried out a substantial amount of China's massive infrastructure investment in the wake of the global financial crisis, in the 2008–2009 period. This role came on top of existing spending responsibilities that were already larger than their revenue-raising power. Local governments therefore used the rapidly rising real estate market as a revenue source: In some cases they undertook outright sales of local land, and in others they used the land as collateral for loans provided by local government financing vehicles (LGFVs). This strategy not only exposed local governments to fluctuations in the real estate market, but has also caused the accumulation of a massive stock of debt. The different estimates of this stock of debt will be discussed below.

At the time, the 2009 ramp-up in local government spending and the corresponding buildup of local debt was the right policy strategy. Policymakers needed to counter the impact of the global financial crisis, and the central government alone would not have been able to launch such a large number of investment projects quickly enough. Only the delegation of project execution to local governments allowed policymakers to support aggregate demand with the required speed, as the global economy was entering into a tailspin. Today, however, China's leadership has grown increasingly concerned about local government debt and has begun to adopt corrective measures.

In response, policymakers launched a local government debt reform (embodied in Directive 43<sup>3</sup>) in late 2014 to address both the flow and the stock issue: (i) On the one hand, the reform restricts local governments' access to financing channels to limit the accumulation of new debt; and (ii) on the other, it allows local governments to issue longer-term bonds and swap them for existing debt. The second element of the strategy will allow local governments to extend their debt maturity, reducing the liquidity and financial stability risk. We will come back to this local government debt reform in the section devoted to monetary policy, to assess its potential impact on credit growth.

## Local Government Financing Vehicle (LGFV) Bond Issuance Has Dropped After Directive 43 Reforms

Exhibit 18: China: LGFV Bond Issuance  
January 2013–June 2015



Source: Wind.

We believe this strategy, if properly executed, should allow China to bring the local government debt problem under control, defusing the risk of a full-fledged debt crisis further down the road. In the short term, however, the combination of falling real estate prices and the new debt control and management strategy limits the local governments' ability to carry out significant expenditures and curbs their ability to promote growth. In 2013 and 2014, net increases in LGFV bond issuance were more than RMB 2 tn each year. Since the announcement of Directive 43, however, there has been a sharp drop in bond issuance, as illustrated in the chart above.

Local government spending could therefore pose a significant downside risk to China's growth outlook. How significant? The cumulative LGFV bonds issued from October 2014 (the start of Directive 43) to June 2015 was RMB 890.9 bn. For the nine-month period preceding October 2014, total issuance amounted to RMB 1481.6 bn. Thus, the level of LGFV bond issuance has fallen by RMB 590.7 bn. Data on local government debt by activity indicates that infrastructure-related investment spending (the sum of transportation and urban construction) on average accounts for 55.3% of total spending.<sup>4</sup> In the table below we assumed 50% of LGFV bond issuance could be attributed to infrastructure related activities.

Exhibit 19: LGFV Reforms Affect GDP Growth

	LGFV Bond Issuance, RMB bn	% GDP
Pre-Directive 43 (Jan. 2014–Sept. 2014)	1481.6	2.2
Post-Directive 43 (Oct. 2014–June 2015)	890.9	1.3
Change	-590.7	-0.9
Assume 50% of LGFV Borrowing Goes to Infrastructure		-0.4

Source: Calculations by Templeton Global Macro using data sourced from Wind.

This would imply that if we assumed that there was no pickup in LGFV bond issuance, we could see a further 0.4 percentage point reduction in GDP growth, based on the restricted access to financing by local governments.

# 4. Turning a Challenge into an Opportunity: The Lewis Turning Point

## From the Demographic Dividend to the Lewis Turning Point

Demographics have played an extremely important role in China's economic story. Over the past decades, China has enjoyed a tremendous demographic dividend, triggered by two opposite policy impulses. First, Chairman Mao encouraged fertility, spurring a boom in births over the 1960s and early 1970s. This was followed in 1979 by the launch of the one-child policy, which reduced fertility rates to the current 1.4–1.7 (depending on the source), well below the replacement rate and among the lowest in the world.

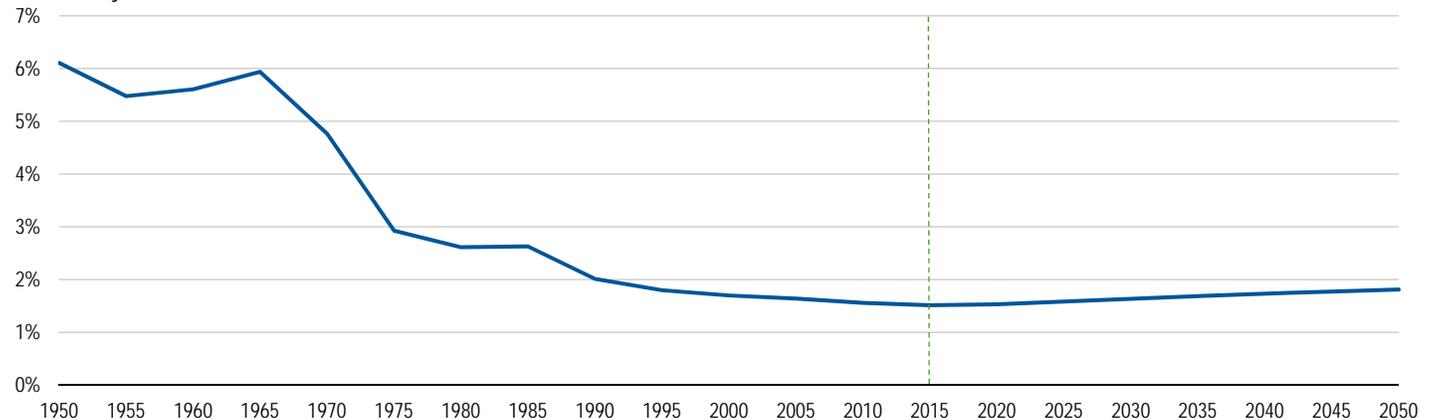
The profound impact of this swing in birth rates can best be seen by looking at classic “population pyramid” charts.<sup>5</sup> In 1980, at the start of modern China, the bulk of the population was still concentrated in the youngest brackets. By 2015, however, the population pyramid has become much less bottom-heavy, with smaller younger cohorts and the bulk of the population shifted to the middle and older age brackets. Such a dramatic demographic swing has had enormous economic implications.

## China's Fertility Rate Is among the Lowest Globally

Exhibit 20: China: Total Fertility Rate

1950–2050E

Total Fertility Rate



Source: National Bureau of Statistics, China.

## China's Working Age Population Has Started To Shrink

Exhibit 21: China: Population Pyramid, 1980

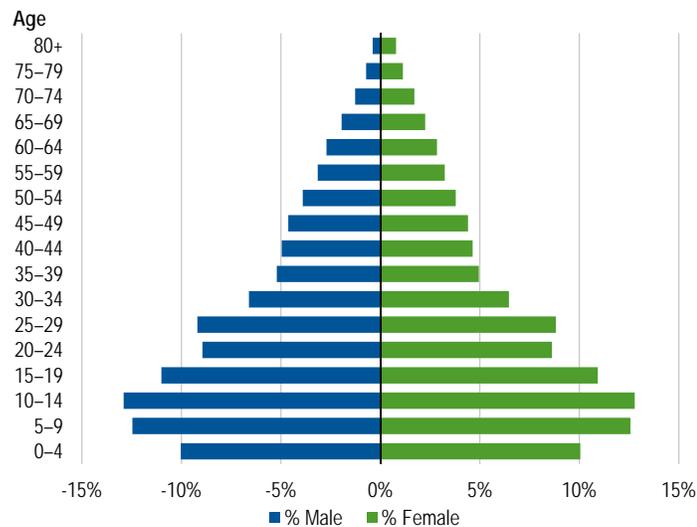
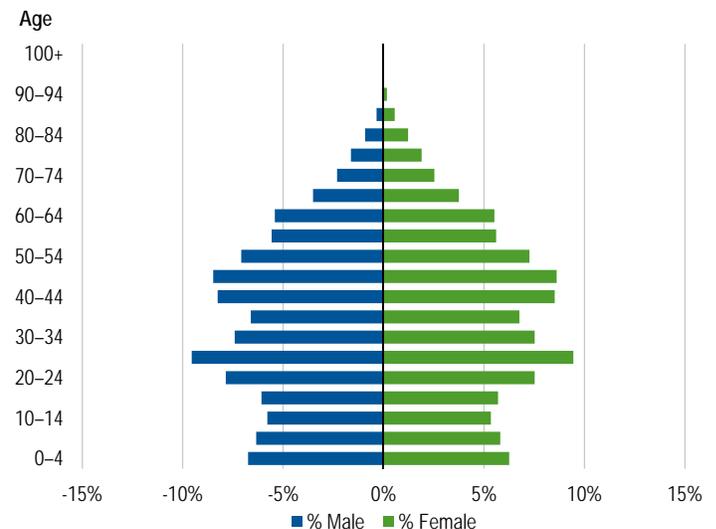


Exhibit 22: China: Population Pyramid, 2015



Source: United Nations, Department of Economic and Social Affairs.

As the “Mao baby boom” generation entered the labor force, the number of children declined because of the one-child policy. This surge in the number of people of working age coincided with a decline in the number of people supported by each worker, causing the dependency ratio, which includes both children and the elderly in the numerator, to fall.

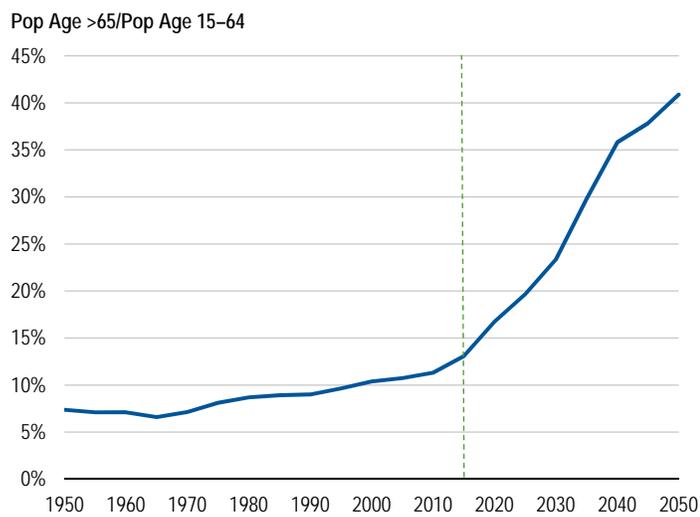
The surge in the labor force, combined with heavy migration from rural areas to newly industrializing regions, provided a nearly unlimited supply of labor. This allowed companies to keep wages low and increase their competitiveness in global markets. Earning healthy profits, firms then systematically reinvested in greater production capacity.

Gradually, however, the one-child policy has begun to be reflected in a slowdown in population growth, and, in particular, a slowdown in the working age population. This has brought China to **the Lewis turning point**: the time when the population of working age starts to shrink, and the labor force with it.

China's working age population (defined as those 15–59 years old) peaked in 2010; the population aged 15–64 peaked shortly thereafter in 2013. A recent academic study estimates that the end of the demographic dividend would by itself explain the slowdown in China's GDP growth rate from about 10% to a 6%–7% range.<sup>6</sup> As population aging continues, the headwind could get more intense: The old age dependency ratio is projected to rise from the current 13% to over 40% by 2050. Besides the slowdown in the working age population, such a rise in the old age dependency ratio would put considerable pressure on the pension and health care systems.

## Demographic Shifts Will Place a Heavier Burden on a Shrinking Workforce

Exhibit 23: China: Old Age Dependency Ratio 1950–2050E



Source: National Bureau of Statistics, China.

Before we delve deeper into the economic implications, it is worth noting that projections based on demographic forecasts on a 50–100 year horizon are necessarily subject to a margin of uncertainty. The government has begun to take steps to make the one-child policy less restrictive in an effort to increase the fertility rate. An increase in the fertility rate would pose a challenge in the short term, as larger cohorts of children would imply a higher total dependency ratio given the still shrinking working age population. In the medium term, however, the new generations would enter the workforce, lowering the dependency ratios and boosting potential growth.

Currently, neither the steps taken nor contemplated by the government would allow the fertility rate to increase above the replacement rate of 2. They would yield only a marginal increase from current rates, and their economic impact would therefore be negligible. Relatedly, analysts have also noted that as income levels increase, Chinese families seem to naturally develop a preference for fewer children, so at this stage, a relaxation of the one-child policy might not achieve its full effect. A more important impact could come from measures to boost the labor force participation rate: Lu and Cai estimate that a 5% increase in the participation rate would boost potential GDP growth rates by 1 percentage point.

This implies that in the short term, government policy cannot prevent the deceleration in labor force growth—China must confront the challenges posed by the Lewis turning point.

**The Lewis turning point marks a crucial juncture for any developing economy.** As the supply of cheap labor decelerates and no longer outstrips demand, wages begin to rise, eroding the profitability of an industrial system still geared toward low-cost production. **At the Lewis turning point, most emerging markets get stuck in the “middle-income trap.”** Rising wages make low-cost manufacturing uncompetitive, while the country has not yet developed the capacity for higher value-added production. As a consequence, growth stalls. Most emerging markets have suffered this fate, with a few notable exceptions, mostly in Asia.

Has China reached the point where demographics undermine competitiveness? In the case of China, a few caveats are in order; low-cost manufacturing can still be competitive:

- First of all, a decline in the working age population does not necessarily imply a decline in the non-farming labor force. China's urbanization has made enormous progress, but has far from run its course. Further migration of labor from the countryside to the industrial areas remains.
- Second, a number of manufacturers have already been relocating from the coastal areas to interior regions, where labor costs are substantially lower.

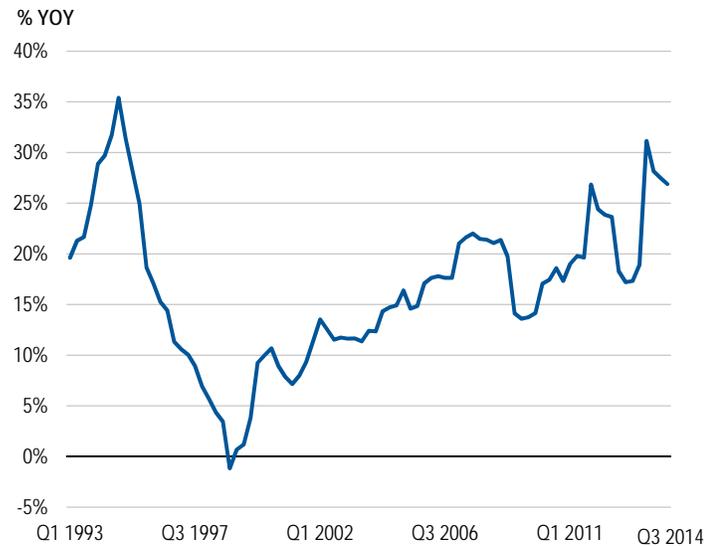
Having said this, though industrial wages have been increasing, rural wages have also risen sharply, narrowing the gap between rural and industrial wages. This reduces the incentives for migration away from the countryside, which could slow the process of urbanization. The government has started taking steps to make it easier for workers to relocate to urban areas: in particular, the reform of the Hukou, or household registration system, and infrastructure investment to accelerate the development of new regions in the interior.

Even if these efforts enable further urbanization, the days when China could leverage low-cost manufacturing are clearly over. Simultaneously, China has reached the level of per capita income widely considered to be the “glass ceiling” of the middle income trap.

**The onset of the Lewis turning point, therefore, has marked the first phase of China’s economic transition:** The rise in wages triggered by the labor force deceleration has reduced the competitiveness of low-cost manufacturing, making the export- and investment-driven growth model no longer sustainable.

### Labor Force Deceleration Has Triggered Rising Wages

Exhibit 24: China: Total Wage Bill  
Q1 1993–Q3 2014



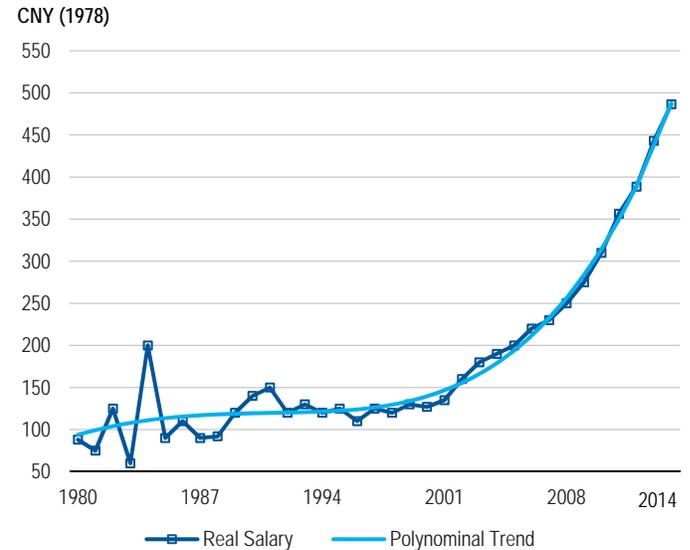
Source: Ministry of Human Resources and Social Security of the People’s Republic, China.

### Turning the Lewis Turning Point Challenge into an Opportunity: the Role of Services and Technology

For China, however, the Lewis turning point presents not just a challenge, but an opportunity. The deceleration and eventual shrinking of the labor force tends to raise wages; and higher wages are exactly what China needs to boost consumption toward levels prevailing in advanced economies: about 70% of GDP. If rising wages can be sustained without a significant rise in unemployment, China could accelerate its rebalancing away from investment and toward household consumption. As we have noted earlier, China currently faces recessions in three major sectors of the economy. Reaching the Lewis turning point, however, affords China the unique possibility to navigate these recessions without any increase in unemployment. **This marks the second phase in China’s economic transformation.**

The rebalancing of China’s economy is already underway. Since 2011, consumption has contributed more to growth than investment has. Furthermore, analysis from academic work by Wang Xiaolu and Wing Tye Woo<sup>7</sup> suggests that GDP in China has been underreported by as much as 10%, with official data on consumption underreported by 20%, illustrated on the following page.

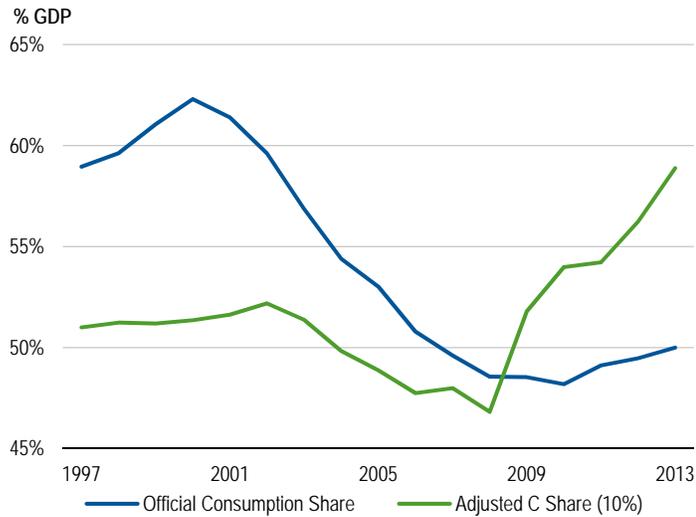
Exhibit 25: Migrant Workers’ Monthly Salary  
1980–2014



Source: Lu Feng, “Employment Expansion and Wage Growth (2001–2010),” China Macroeconomic Research Center, Peking University, Beijing, June 2011. Update for 2010–2014 by Franklin Templeton Investments with data from the National Bureau of Statistics.

## China's Official Data Likely Underestimates Consumption as a Share of GDP

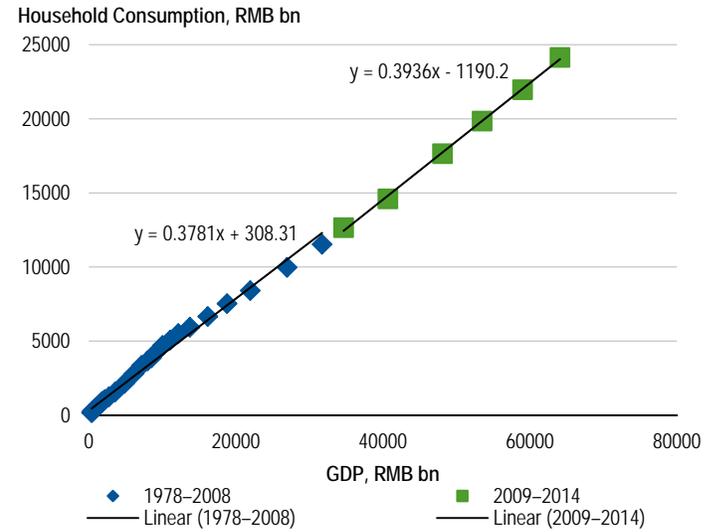
**Exhibit 26: China: Consumption Share of GDP**  
1997–2013



Source: National Economic Research Institute. Estimate calculations by Franklin Templeton Investments based on methodology published by Xiaolu Wang and Wing Thy Thye Woo in *China: Beyond the Miracle*, 2011.

Based on these estimates, the consumption to GDP ratio in China could well be around 60% of GDP instead of the officially reported 50%. This would imply that since 2009 consumption has contributed on average between 1%–1.5% more to GDP growth

**Exhibit 27: China: Marginal Propensity to Consumption**  
1978–2014

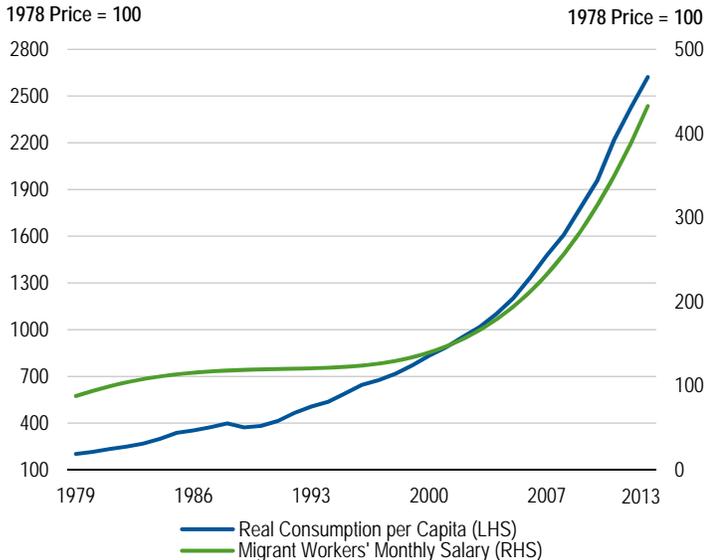


Source: Calculations by Templeton Global Macro using data sourced from the National Bureau of Statistics, China.

than investment. The charts below also demonstrate that we have seen a rise in per capita consumption, in line with increasing wages.

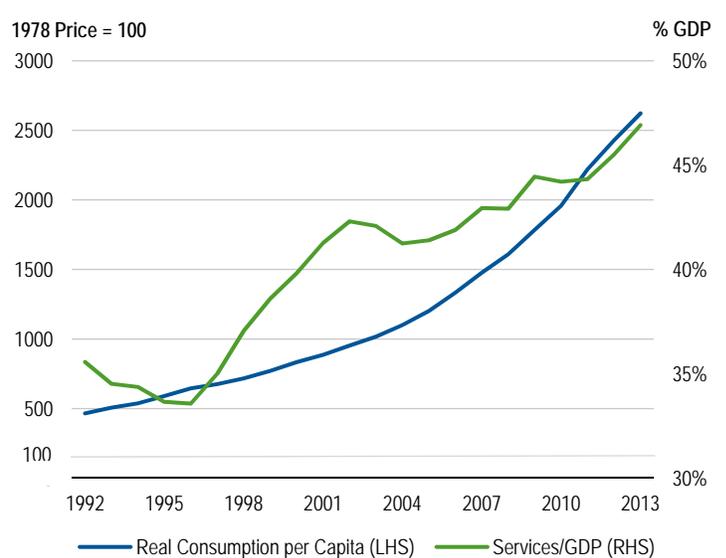
## Rising Wages Have Likely Fueled Rising Consumption

**Exhibit 28: China: Real Consumption and Salary**  
1979–2013



Source: National Bureau of Statistics, China. LHS = left-hand scale; RHS = right-hand scale.

**Exhibit 29: China: Real Consumption and Services**  
1992–2013



Successfully completing the second phase of this transition will be challenging, but we believe China's policies have fostered the necessary conditions:

1. The services sector is gaining importance: As a share of the economy, it has risen from 40% of GDP in 2000 to 48.2% in 2014. It has correspondingly become the biggest engine of job creation, surpassing industry in 2011: From 2000 to 2013, the share of employment by services has gone up from 27.5% to 38.5%. Our analysis suggests that the rise in the services sector and its demand for labor will continue into 2015 and beyond. Over the 10 years through 2013, the share of employment of the services sector rose by 9.2 percentage points. A further 1 percentage point increment in 2015 and subsequent years would imply employment for an additional 3 million workers a year. According to data from the National Bureau of Statistics the average wage in the service sector is RMB 65,728 per annum. This translates into additional annual income of RMB 197 bn, resulting in an additional 0.3 percentage points to the growth rate. Note also that as labor force growth has decelerated, China no longer needs to create as many jobs as before. **At the peak of industrialization, China needed to create about 12 million jobs a year to absorb the rapidly growing labor supply; now it only needs to create about 3 million jobs a year.**<sup>8</sup> The development of the service sector can therefore help ensure that the pace of employment growth remains sufficiently high, even in the face of a contraction in the real estate sector and in traditional manufacturing.

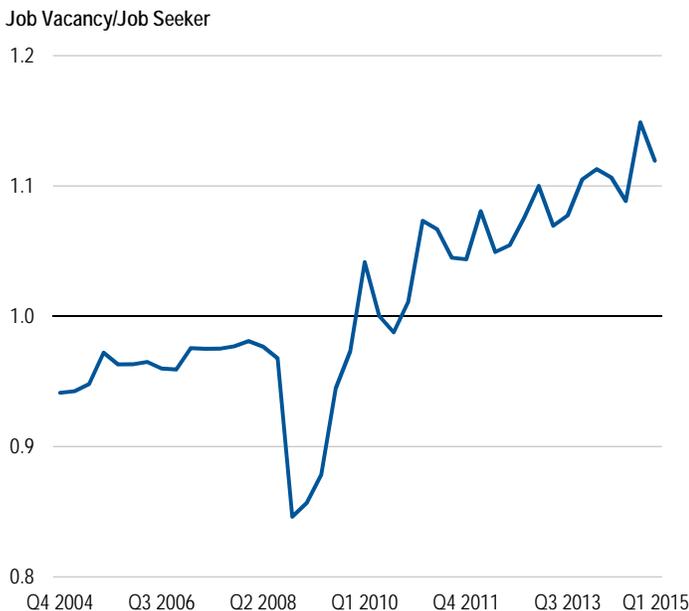
While the service sector has a very strong potential to create jobs, its ability to create large numbers of high-productivity and high-wage jobs remains less certain. In other words, while the service sector can certainly play an important role in sustaining high employment, it might be less effective in sustaining high wages.

2. The development of a more sophisticated, high tech and high value-added manufacturing sector will be necessary: Only better technology and higher value-added manufacturing can sustain rising wages without undermining international competitiveness. China's policymakers recognize this and in May 2015 launched a "Made in China 2025" 10-year action plan. The plan targets a comprehensive upgrading of the manufacturing sector, by (i) raising the technological content of China's manufacturing through stronger home-grown innovation; (ii) strengthening the sustainability of China's economic growth, by promoting green manufacturing and efficient technologies; and (iii) broadening the global reach of China's industry, fostering the growth of global industrial champions. The plan identifies 10 core sectors: information technology; numerical control tools and robotics; aerospace equipment; ocean engineering equipment and high-tech ship-building; railway equipment; energy saving and new energy vehicles; power equipment; new materials; biological medicine and medical devices; and agricultural machinery.

To support this shift, China has been investing heavily to develop and strengthen its research and innovation capabilities. Its investment in R&D has risen from under 1% of GDP in 2001 to

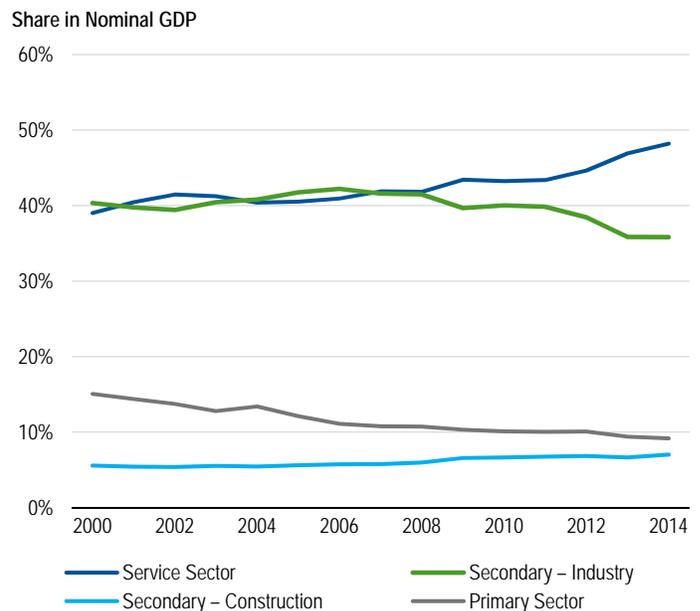
## Service Sector Development Can Help Sustain Employment Growth Even as Other Sectors Contract

Exhibit 30: China: Job Vacancy/Job Seeker  
Q4 2004–Q1 2015



Source: Ministry of Human Resources and Social Security of the People's Republic, China.

Exhibit 31: China: Share of GDP  
2000–2014



Source: National Bureau of Statistics, China.

1.8% of GDP in 2011. In US-dollar terms, China's R&D investment ranks second in the world, with US\$208 bn in 2011.<sup>9</sup> The US, which still leads the ranking, spent US\$429 bn in the same year, equivalent to close to 1.9% of GDP. China also bolstered its education system: In 1982, only 0.8% of Chinese aged 25–29 had a post-secondary education; by 2010 that percentage had risen to 20.6%.<sup>10</sup> The number of institutes of higher education more than doubled between 1998 and 2008. These efforts have focused strongly on science and engineering: As of 2010, 44% of Chinese students majored in science and engineering, compared to 16% in the US. This concentration resulted in China producing 1.1 million bachelor's degrees in science and engineering, about four times those produced in the US.<sup>11</sup> At the same time, more Chinese students are earning

their advanced specialized degrees abroad: The number of Chinese graduate students enrolled in US science and engineering programs tripled between 1987 and 2010, to some 43,000. The stronger creation of talent has been accompanied by intensified efforts to attract Chinese-born scientists and engineers trained and working abroad to return home. These efforts have been extremely effective, with the ratio of students graduating abroad and then choosing to return to China ranging between 30% and 47% during 2007–2009. China has rapidly overtaken the UK, Japan and Germany, and reached about two-thirds of the US research output. While questions have been raised on the quality of its scientific output, measures based on the number of citations indicate that the quality of Chinese scientific publications has also been improving.

# 5. Longer-Term Dynamics

The previous section demonstrates the importance and complexity of the ongoing transformation of the Chinese economy. The manufacturing sector has slowed sharply, as a deceleration in labor force growth has raised wages and undermined the competitiveness of traditional low-cost export industries. At the same time, the contraction of the real estate sector has reduced the funding ability of local governments, which also have to begin deleveraging after their massive, debt-fueled contribution to the 2009 policy stimulus. A rise in the service sector has counterbalanced these recessionary forces, as this sector has taken over as the main job creator while supporting a demand-side rebalance from investment toward consumption. Meanwhile, policymakers continue to strive to foster innovation and shift industry toward higher tech sectors to boost productivity and sustain higher wage growth.

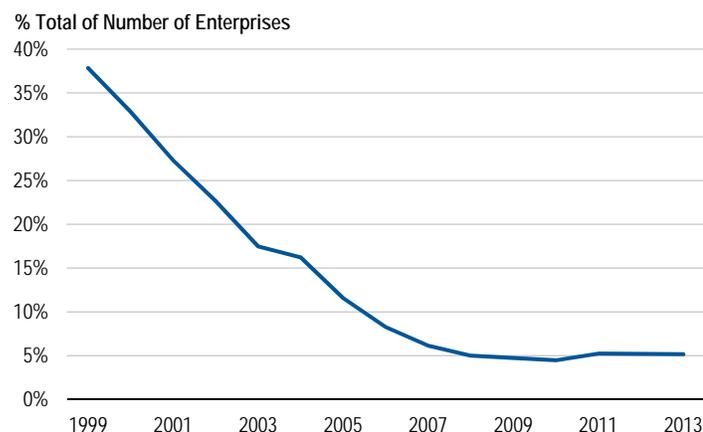
To succeed, this strategy will have to be carried out over a number of years and be supported by other reforms, which are also already in progress. In this section we discuss (i) the reform of SOEs and the shift toward a more important role for the private sector; (ii) capital account liberalization; and (iii) the new phase of infrastructure investment.

## An Increasingly Private China

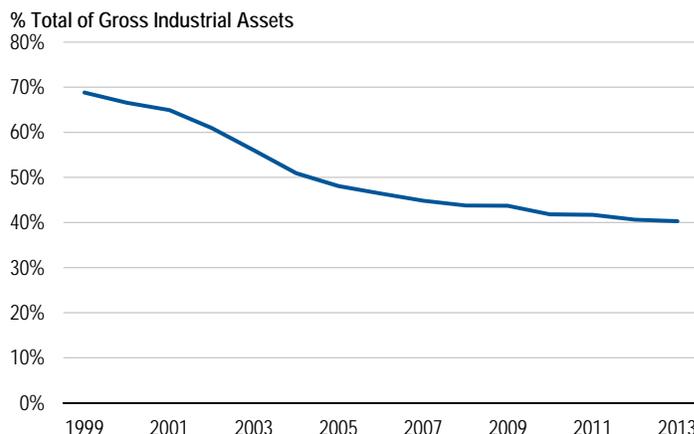
As China's economy continues to transform, the importance of the private sector gradually rises. The most radical steps in SOE reform took place in the late 1990s and resulted in a dramatic reduction in the number of SOEs. The share of SOEs in terms of assets has also declined, but less sharply.

### Reform of SOEs Has Reduced Their Number, Assets and Output

**Exhibit 32: China: Share of SOEs in Industrial Sector (Number of Enterprises) 1999–2013**

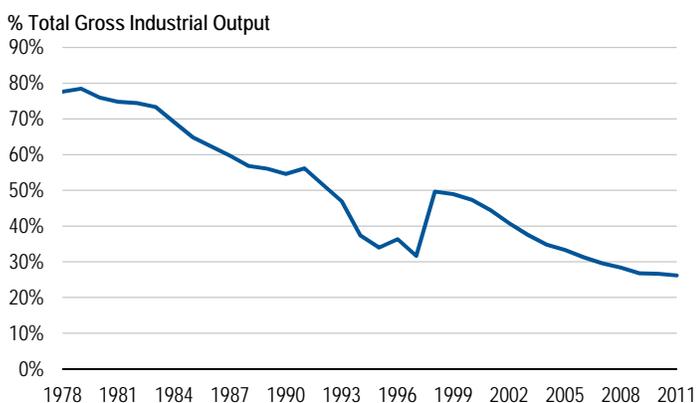


**Exhibit 33: China: Share of SOEs in Industrial Sector (Gross Industrial Assets) 1999–2013**



Source: National Bureau of Statistics, China. Data from the Statistical Yearbook, through 2014.

**Exhibit 34: China: Gross Industrial Output of SOEs 1978–2011**

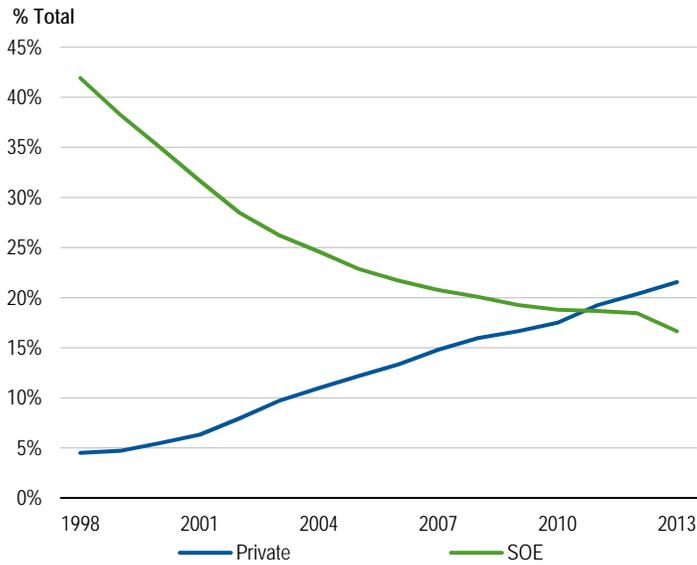


Source: National Bureau of Statistics, China. Data from the Statistical Yearbook, 2012.

The crux of the reform was to “grasp the large, release the small,” and resulted in tens of thousands of weak SOEs being privatized or liquidated, while millions of workers were laid off. Stronger SOEs were restructured and many were listed on the stock market. The SOEs’ share in the economy dropped dramatically as many could not compete with foreign and private companies. The charts on the following page demonstrate that private sector firms are now responsible for a large and increasing proportion of urban employment and have overtaken the state sector in fixed asset investment. Perhaps most encouragingly, we are also seeing private sector exports increasing and overtaking the state sector, again an indication of a vibrant segment of the economy to counterbalance the impact of structural reforms on the state owned sector.

## The Private Sector Has Overtaken the State Sector

**Exhibit 35: China: Total Employment (Urban)**  
1998–2013

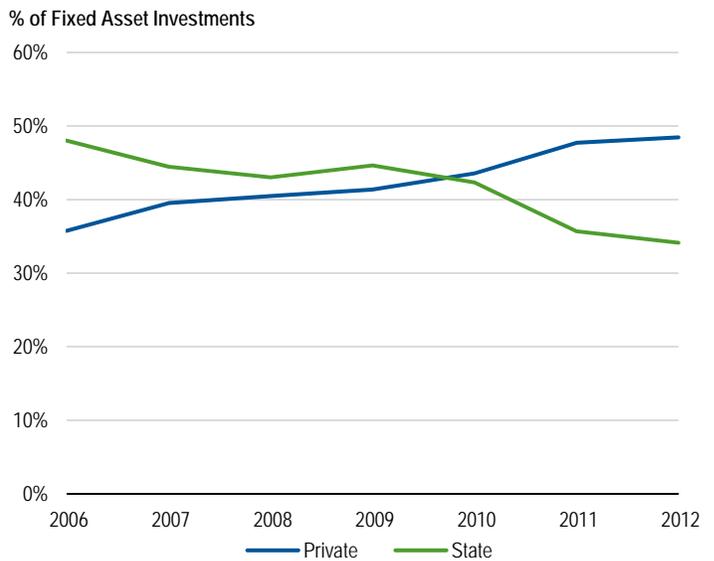


Source: National Bureau of Statistics, China. Data from the Statistical Yearbook, through 2014.

Though the remaining SOEs are largely profitable, unlike those of the 1990s, further reform remains necessary to tackle an underlying problem: These companies frequently enjoy monopoly privileges, creating barriers to entry for private capital. Given the size and strategic importance of many of the remaining SOEs, they have become powerful centers of vested interests with strong resistance to reform. As the private sector has become the main driver of job creation, it becomes increasingly important to liberate resources and encourage its growth. Moreover, private enterprise and competition are essential engines of innovation. Even though some SOEs are also innovating successfully, in order to lift the bulk of China's industry to higher levels of technology and innovation the private sector will have to play the primary role.

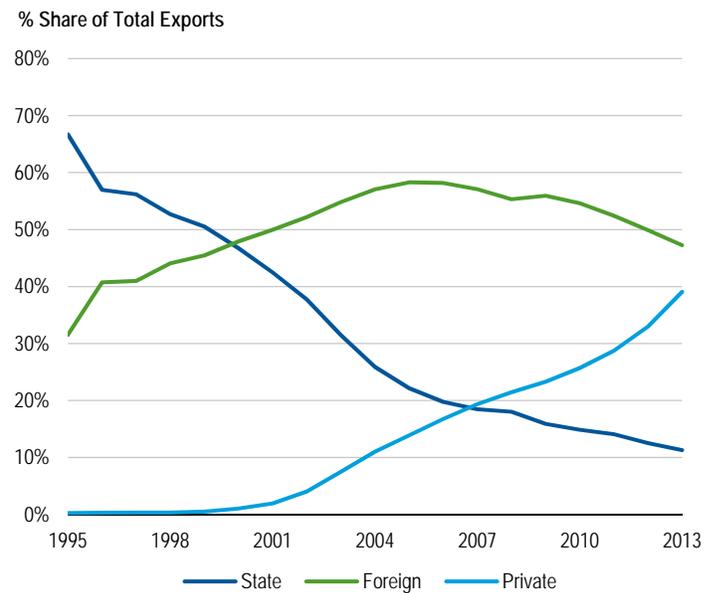
Thus, the Third Plenum Report, a blueprint for reform released late in 2013 by the 18th Central Committee meeting of the Chinese Communist Party, included SOE reform as a critical component. The reform includes the goal of raising the proportion of earnings paid in dividends to the government to 30% by 2020, up from 5%–15% for most SOEs. It promises to accelerate factor price reform in order to level the playing field. To be clear, the government's objective at this stage is not to privatize all SOEs. Rather, the government intends to distinguish between those SOEs that operate in sectors of strategic importance, and will therefore remain in state hands, and those that operate in less critical sectors, and can be opened to greater private sector participation.

**Exhibit 36: China: Fixed Investment by Ownership**  
2006–2012



Source: National Bureau of Statistics, China. Data from the Statistical Yearbook, through 2014.

**Exhibit 37: China: Sources of Exports by Ownership Status**  
1995–2013



Source: Nicholas Lardy, "Markets over Mao: The Rise of Private Business in China," p. 87.

## Capital Account Liberalization

The currency crises in Asia of 1997–1998 were formative in shaping Chinese policymakers' views on the wisdom of capital controls and the inherent dangers of capital account liberalization. Groombridge (2001)<sup>12</sup> highlights that Beijing believed China avoided the crisis because of its closed capital account. Since most capital inflows to China took the form of less mobile foreign direct investment (FDI), he hypothesizes that this resulted in less vulnerability to sudden stops and reversals. Coupled with a closed capital account, currency speculators did not have the ability to launch a currency attack.

While this has helped China in the past, there are clearly merits to financial liberalization. Pang (2008)<sup>13</sup> shows that the free flow of capital could make the Chinese domestic financial markets deeper and wider. Furthermore, investment diversification would improve investment returns of households, boost private consumption growth, and support sustainable economic growth. A study by Yiping Huang and Ji Yang (2014)<sup>14</sup> estimates that a more complete set of financial reforms could lift GDP growth by as much as 1.4 percentage points.

Moreover, the government sees capital account liberalization and the eventual convertibility of the renminbi (RMB) as important steps in affirming China's more prominent and influential role on the global economic scene.

The preconditions for and sequencing of capital account liberalization are discussed in Agenor and Montiel (1999)<sup>15</sup> and Groombridge (2001). The non-exhaustive list includes:

1. The liberalization of FDI and trade finance.
2. A healthy fiscal position to cope with potential non-performing loan problems in reforming the financial sector.
3. Building primary and secondary securities markets for monetary policy implementation and financial stability.
4. Enforcement of domestic competition, especially among banks, to foster allocative efficiency in the financial sector.
5. Implementation of measures to improve bank regulation and supervision.
6. Restructuring of the domestic bank system to carve out bad loans.
7. Reforming the tax system to compensate for the loss of explicit and implicit taxes on financial intermediation.
8. Freeing the domestic interest rate.
9. Permitting the entry of foreign banks into the financial system.

The table below compiles comments on what China has liberalized in recent years in view of the list shown above.

### Exhibit 38: China Has Made Progress Toward Capital Account Liberalization

Requirement	What Has Been Done? Can China Afford It?
Liberalization of FDI and trade finance.	This has been liberalized in the run-up to the World Trade Organization accession in 2001.
Healthy fiscal position to cope with potential non-performing loan in reforming the financial sector.	The fiscal deficit has been small. Over the past five years, the average fiscal deficit has been 2% of GDP. Latest local government debt (highest) was estimated to be RMB 25 tn (37% of GDP). Current central government debt is 16.5% of GDP. In total, this could become 53.5% of GDP.
Building primary and secondary securities markets for monetary policy implementation and financial stability.	This is still in an infant stage compared to bank loans. However, non-financial equity and corporate bond issuances have been picking up as evident from the total social financing data.
Enforcement of domestic competition, especially among banks, to foster allocative efficiency in the financial sector.	
Implementation of measures to improve bank regulation and supervision.	
Restructuring of the domestic bank system to carve out bad loans.	This has been done previously with the setting up of asset management companies.
Reforming the tax system to compensate for the loss of explicit and implicit taxes on financial intermediation.	
The domestic interest rate will be freed.	The one-year benchmark lending rate has been fully liberalized. The one-year deposit rate has been liberalized in March 2015.
The entry of foreign banks into the financial system can be permitted.	

Source: Requirements derived from Groombridge, M.A. (2001) "Capital Account Liberalization in China: Prospects, Prerequisites and Pitfalls," *Cato Journal*, Vol. 21(1), pp. 119–131 and Agenor, P.R. and Montiel, P.J. (1999) *Development Macroeconomics*, 2nd edition, Princeton University Press with analysis from Templeton Global Macro.

The capital account has gradually opened up over the years. The Qualified Foreign Institutional Investor (QFII) scheme has allowed foreign investors to access domestic financial markets. The Qualified Domestic Institutional Investor (QDII) scheme has allowed financial institutions to invest overseas on behalf of domestic investors.

Progress on this front should continue, although China's policymakers will be keen to control the potential impact on domestic financial stability.

## FX Policy and Interaction with Capital Account Liberalization

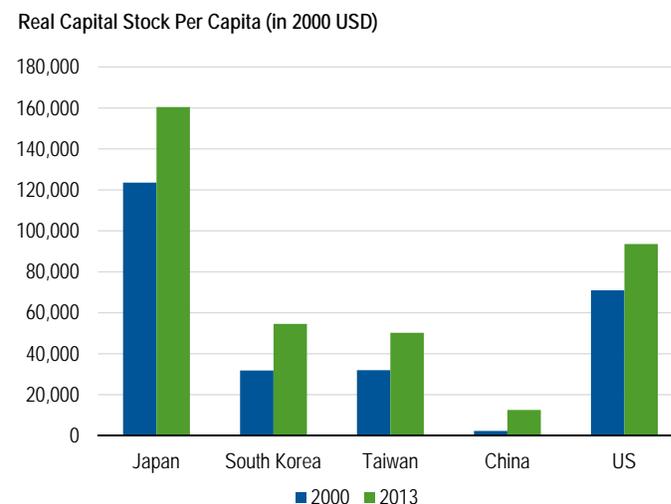
Policymakers have maintained the value of the RMB broadly stable against the US dollar, refraining from using exchange rate depreciation as an additional tool to ease monetary conditions and stimulate growth. Exchange rate depreciations that have accompanied the QE efforts in the US, Japan and the eurozone, and have played an important role in the easing policy process make the exchange rate stability especially notable. Moreover, stability against an appreciating dollar implies that the RMB has actually experienced a meaningful appreciation on a real effective basis, posing a further challenge to competitiveness.

We see two reasons behind this stable exchange rate policy. First, policymakers are wary of the risk that a weakening RMB could accelerate capital outflows. Second, a stable RMB can underpin efforts to bolster the currency's credibility and increase its use in international markets. China hopes to have the RMB introduced in the IMF's SDR basket, and aims to eventually turn it into a global reserve currency. While full convertibility remains distant, a broadly stable exchange rate will continue to be seen as a constructive part of the process. We therefore expect RMB stability to persist.

## The Continued Need for Infrastructure

While there has been a lot of focus, particularly in the popular press, on China's massive overbuilding, we see significant scope for additional infrastructure. Although China's infrastructure surpasses that of most emerging markets, its total capital stock significantly lags that of the developed world.

Exhibit 39: China's Capital Stock per Capita Remains Low by Global Standards



Source: UBS, Macro Keys, May 26, 2015.

As noted earlier in this paper, a key area for increased investment in infrastructure includes public transport, both in railways and roads. In addition, the government has prioritized sustainable urbanization where environmental protection, basic health care facilities and sanitation are in acute need of additional investment. While spending on infrastructure may not generate near-term commercial returns, it will help cushion the impact of the slowdown in the construction and real estate sectors in the short run. It will also improve the economy's long-term growth potential via enhanced productivity.

Historically, infrastructure spending has largely been carried out at a local level, suggesting alternate avenues for financing will be needed as the central government actively tries to rein in local governments' debt accumulation. The government has planned an ambitious series of initiatives to address the funding gap, including launching Public Private Partnership (PPP) schemes through which commercially viable projects can be carried out utilizing corporate balance sheets. In addition, the central government and some central government SOEs will directly finance a series of cross regional projects. The US\$50 bn Silk Road Fund has already been established—in part to finance the road build-out. China has taken the lead in establishing the Asian Infrastructure Investment Bank (AIIB), and last year proposed doubling the registered capital of the bank from US\$50 bn to US\$100 bn.

Exhibit 40: China Is Planning Large-Scale Cross-Border Infrastructure Projects



The data below are taken from an HSBC report,<sup>16</sup> which quantifies the projects related to the Silk Road initiatives.

### Domestic Investment Projects Could Significantly Boost China's GDP

Exhibit 41: Investment Projects inside China

Province	Projects	Investment Value (RMB bn)
Inner Mongolia	Transportation	175
Liaoning	Transportation	46
Heilongjiang	Transportation	No exact amount specified
Fujian	Overall Infrastructure	330
Yunnan	Transport: Three Railways	93.7
Chongqing	Build Liangjiang New District	45
Guangxi	Infrastructure (Overall)	98.4
Shaanxi	Irrigation and Water Conservancy	24
Gansu	Transportation	78
Qinghai	Transportation	30.8
Ningxia	Power Grid	60.8
Xinjiang	Transportation	25
Zhejiang	Transportation	68
Guangdong	Transportation	110
Hainan	Overall Infrastructure	211.1
Shanghai	Transportation	50
Jilin	Transportation	16.3
Tibet		No exact amount specified
<b>Total</b>		<b>1,462.1</b>

Source: HSBC, "On the New Silk Road III," April 21, 2015.

Clearly the Silk Road-related projects would have an impact on China's headline GDP growth. The table on the previous page shows that the total projects amount to RMB 1,462 bn (2.1% of GDP). A recent paper by Wang and Wen (2013)<sup>17</sup> found China's fiscal multiplier to be more than 2. This would imply that in the medium to long term, these projects could boost GDP growth by up to 4.2 percentage points. In the near term these projects can also help absorb the excess capacity discussed in the earlier part of this paper, while easing the economic impact of the reduction in local governments' infrastructure spending. In addition to the domestic projects, as the map on page 25 shows, China also envisages a series of cross-border projects, some of which would rely on the newly created AIIB for financing.

## A Number of Cross-Border Investment Projects Are Planned

Exhibit 42: Cross-Border Projects under the New Silk Road Initiative in the Coming Years

Pilot Projects	Investment Destination
Gwadar Port Construction	Pakistan
Habantota Port Construction	Sri Lanka
Capacity Cooperation Plan (Investment Value: US\$23.6 bn)	Kazakhstan
Sihanoukville Port Construction	Cambodia
Indonesia Port Construction	Indonesia
China-Laos-Thailand Railway	Laos and Thailand
China-Myanmar Railway	Myanmar
China-Tajikistan Railway	Tajikistan
China-Pakistan Highway	Pakistan
China-Central Asia Natural Gas Pipelines, Line C and Line D	Central Asia
China-Russia Natural Gas Pipelines, West Line and East Line	Russia

Source: HSBC, "On the New Silk Road III," April 21, 2015.

## 6. The Outlook: Where Do the Upside and Downside Shocks Leave Us?

In the previous sections we identified and quantified shocks to China's growth, both on the upside and the downside, and in the near and medium term.

The near-term negative shocks relate to the ongoing recession in the manufacturing sector; the recessions in the real estate and construction sectors, which we believe are likely to have bottomed out; and a recession related to local governments' infrastructure financing.

Positive trends include the ongoing rebalancing toward increasing consumption, a growing services sector, and the new infrastructure initiatives launched by the central government.

The table to the right summarizes our views for the near term. Note we have not included the impact of the Silk Road projects in this quantification, since the precise timing of the projects is not certain. When considering the sum of the shocks facing the Chinese economy, we conclude the following: While there are clearly near-term challenges to GDP growth, too often casual observers focus only on one of the two sets of shocks—negative or positive. Looking at a more complete picture leads us to believe that relative to last year's 7.3% GDP growth, we will likely see a

moderation this year. However, this moderation **should still allow the Chinese economy to grow at the 6.5%–7% growth rate that has been targeted by the government, which we would categorize as a “soft landing.”**

Exhibit 43: We Anticipate a Moderation in China's Growth in the Near Term

Shocks	% Points to GDP Growth Rate
Negative	
Industrial production slowdown and overcapacity	-0.7
LGFV reduction due to Directive 43	-0.4 to -0.5
FAI fall (real estate related)	-0.4
<b>Total Negative</b>	<b>-1.4 to -1.5</b>
Positive	
Consumption upgrading	+1.0
Services/GDP rise and potential effect on employment	+0.3
<b>Total Positive</b>	<b>+1.3</b>

Source: Calculations by Templeton Global Macro using data sourced from the National Bureau of Statistics, China.

# 7. Risks

China's transition remains on track. We believe the government has the right strategy and that progress has been made in most key areas. However, as we have reiterated in the previous sections, difficulties and risks are inevitable when carrying out this transition. Very few countries have successfully escaped the middle-income trap, none of them even close to China's size. In addition, China has to unwind the imbalances created in the previous phase of extremely fast growth and contend with rapid population aging.

In this section we discuss three main risks: that the current monetary policy response to the slowdown could end, slow, or stop the deleveraging process; the rapid accumulation of debt of the past several years; and an equity market crash.

## China's QE?

As part of its reaction to the recent sharper-than-desired deceleration in economic activity, China's policymakers have eased monetary policy. Their steps have been taken in conjunction with efforts to accelerate debt deleveraging in local governments. The latter include allowing local governments to issue debt in exchange for existing loans, with the provision that the newly issued debt can be used as collateral in banking operations.

These measures have led a number of analysts and commentators to argue that China is now pursuing QE in a manner similar to the US, Japan and, more recently, the eurozone. We think that focusing on whether or not China has launched a QE effort can be misleading and confusing. We deem it much more important to better understand (i) the quality and nature of China's monetary easing and the mechanisms through which it will percolate through the economy; and (ii) the true extent of the easing, as this will determine its impact on economic activity and on financial aggregates. In other words, a thoughtful analysis should tell us to what extent this monetary easing can boost growth, in what sectors it will be felt the most, and whether there is a risk that it will slow or even undermine efforts to deleverage and to gradually deflate asset bubbles in the economy.

We want to start with one important consideration: Easing with quantitative means differs from quantitative easing. China's banking and financial system remains much less developed than those in advanced economies. In China, banks are state-owned, and interest rates are subject to administrative limits. As a consequence, both the price and the allocation of credit are distorted and controlled in a way that we do not see in advanced economies. The People's Bank of China (PBOC) cannot rely on "orthodox" monetary policy instruments because the transmission channel would not work in the way that the Fed or the ECB can

expect. The PBOC therefore has traditionally run monetary policy based on quantitative instruments: It sets an annual monetary aggregate target (M2) which it then pursues with on-lending facilities, open market operations, FX interventions, and required reserve ratios to control the base money supply (M1), and loan-to-deposit ratios and other instruments to manage bank credit. By contrast, the Fed and the ECB have traditionally set the policy interest rate (federal funds rate and refi rate, respectively) to influence broad money and credit supply.

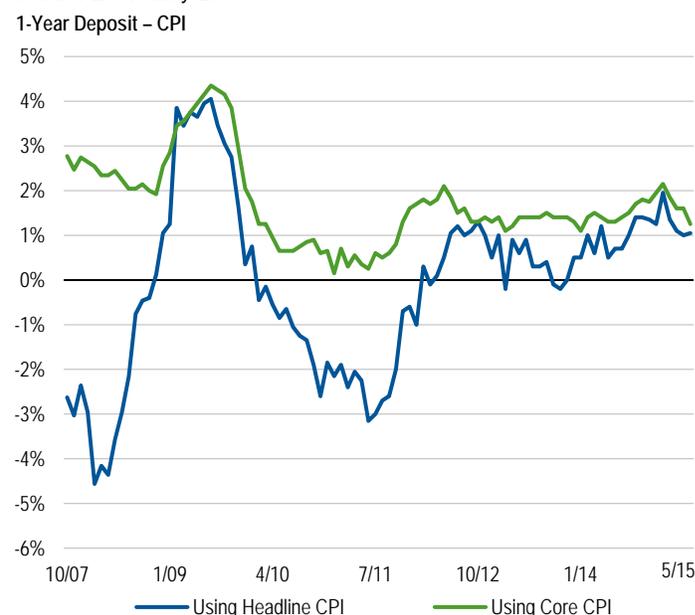
The Fed and the ECB adopted quantitative instruments only after they had brought interest rates to zero and needed to ease policy even further. In other words, the Fed and ECB have turned to quantitative instruments to launch exceptional monetary easing in exceptional circumstances. The PBOC instead uses quantitative instruments for normal monetary easing in normal circumstances.

Let's now start by taking stock of China's recent monetary easing measures. The PBOC has launched its traditional "orthodox" policy response, cutting interest rates four times (total of 105 basis points) and the required reserve ratio (RRR) three times (total of 150 basis points) since late 2014. The RRR reduction has triggered a significant boost to base money growth and more can be expected with the most recent reduction for select banks. The bank has also injected close to RMB 1 tn in additional liquidity through other liquidity facilities.

## China's Monetary Easing Measures Have Lowered Interest Rates

Exhibit 44: China: Real Interest Rate

October 2007–May 2015



Source: Calculations by Templeton Global Macro using data sourced from the National Bureau of Statistics, China.

At face value, this looks like a substantial easing effort. However, this has taken place in a context of capital outflows and reduced FX intervention and accumulation; and the latter has traditionally been the main driver of liquidity creation. Moreover, the exchange rate has appreciated on a real effective basis. Financial conditions, therefore, have not eased nearly as much as the measures mentioned above would suggest.

Consider the following:

- Interest rates have declined, but with inflation falling even more rapidly, real lending rates are still 100 basis points higher than in Q4 2014.
- New credit flows as a percent of GDP are currently lower than at almost any time since the global financial crisis.

In other words, the PBOC's policy response so far has only slowed an ongoing tightening in financial conditions, very far from the exceptional monetary policy support that we associate with QE in advanced economies.

Below we re-construct a monetary condition indicator (MCI) based on metrics developed by JP Morgan, as a weighted sum of four variables: (i) the real interest rate, measured by the one-year benchmark lending rate minus headline CPI; (ii) credit growth (in yoy terms), measured as the total social financing (TSF) stock; (iii) JP Morgan real effective exchange rate (REER); and (iv) excess reserves in the banking system. The inclusion of the real interest rate and REER is standard practice. But as China's monetary policy still largely relies on quantitative measures, as mentioned above, we also include the quantitative measures of credit and excess reserves. The chart below confirms that monetary conditions have remained tight despite the recent easing measures.

## Monetary Policy Still Remains Tight

Exhibit 45: China: Monetary Condition Indicator (MCI) and GDP Q1 2009–Q1 2015



Source: Calculations by Templeton Global Macro using data sourced from the National Bureau of Statistics, China, JP Morgan and People's Bank of China. LHS = left-hand scale; RHS = right-hand scale.

Given the sharper-than-expected deceleration in economic growth and the persistent deflation in producer prices, policymakers seem to have been behind the curve in their monetary response. This probably reflects their desire not to compromise efforts to deleverage and rebalance the economy. They are concerned that a powerful and generalized relaxation of monetary conditions could rekindle the excesses in debt accumulation and real estate investment just as they undertake the delicate process of reducing them. Weaker final demand and worsened profitability, on the other hand, would limit the corporate sector's ability and willingness to absorb additional credit to finance productive investment.

Policymakers have therefore favored more targeted intervention, relying on policy banks to deliver increased credit flows toward infrastructure investments. This has been coupled with a renewed increase in infrastructure programs, notably under the One Belt, One Road initiative discussed above. The resulting combination of fiscal and monetary expansion can deliver a more effective jolt to economic growth.

At the same time, as we have seen above, policymakers have launched a deep reform of local government financing, restricting their ability to raise financing through LGFVs, but allowing them to issue bonds that can be swapped against existing debt.

The debt swap program has attracted comparisons with QE. The program will allow local governments to swap LGFV borrowing, trust loans and other forms of debt with provincial bonds. Provincial bonds benefit local governments through longer maturities and lower interest rates. The swaps will enable local governments to reduce their debt servicing costs and extend the average debt maturity.

This implies that creditors will be holding assets with a longer maturity and lower yield. In exchange, provincial bonds will be eligible as collateral for PBOC liquidity operations such as Standing Lending Facilities, Medium-Term Lending Facilities and Pledged Supplementary Lending. In addition, provincial bonds will carry a lower risk weighting than bank loans (20% vs. 100%), so that the swap will reduce the banks' capital charges.

From a monetary policy perspective, the swap program resembles the ECB's Long-Term Refinancing Operations (LTRO) rather than QE, as the assets will not be purchased outright by the central bank. The PBOC has, in fact, pointed out that direct government financing is forbidden by law, indicating that it does not intend to purchase provincial bonds. As we know from the eurozone's experience, however, liquidity facilities such as the LTRO can be extremely powerful in injecting liquidity into the economy. Banks could repo provincial bonds at the PBOC and deploy the resulting liquidity in additional lending. The extent to which the swap program results in domestic credit expansion, therefore, will depend partly on the banks' behavior and partly on the PBOC's decision on how many bonds to accept as collateral and at what

conditions. The bank has indicated these decisions will be guided by its monetary policy objectives.

The curb on LGFVs has coincided with a downturn in the real estate market, which has limited the ability of local governments to raise revenue through land sales. While there have been efforts to stimulate public-private partnerships (PPPs) to fund infrastructure projects, the net effect has still been a decline in local government financing abilities and a reduction in their spending, which has further contributed to the economic slowdown. The anti-corruption campaign and the pressure to prioritize the quality of growth (i.e., pollution control and sustainability) have also contributed.

This suggests that China's monetary easing will likely intensify in the coming months. This could be through additional reductions in interest rates and RRR, which would release more liquidity into the system, and/or through the use of the debt swap program. At end-June 2015, the PBOC announced another set of rate cuts; both one-year lending and deposit rates were reduced by 25 basis points. The PBOC also cut the RRR for qualified banks by 50 basis points.

So far, policymakers have appeared determined to strike the right balance, easing monetary and credit conditions to support economic activity, but without halting or reversing the deleveraging in local government debt and shadow banking financing. If the pace of economic activity decelerates further, however, pressure to ease monetary policy even more will increase. This creates risk of the debt swap "liquefying" current non-performing debt, opening the way for a new wave of debt-fueled spending by local governments. The extent to which this does occur bears extremely close watching, as it would be clearly undesirable. We do not believe that China needs or should embark on a QE program, given the ongoing concerns about leverage.

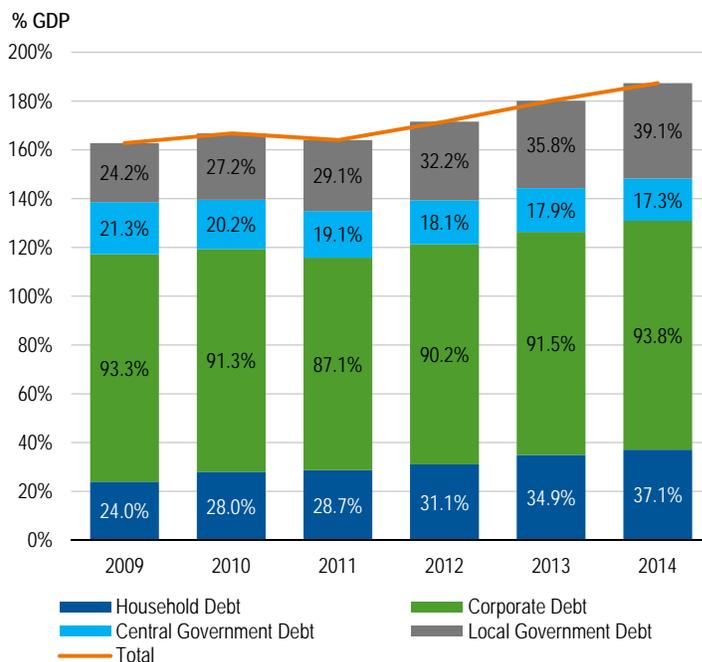
## Debt Sustainability

Any discussion on the risks facing China would be incomplete without a discussion of debt sustainability and the true level of debt. One important issue needs to be stressed up front: China has rapidly accumulated a substantial stock of debt over the past decade, a lot of it through local governments and the shadow banking sector. At the same time, China has a very substantial amount of assets, partly in FX reserves, but mostly in the form of market capitalization of the strongest SOEs. In this regard China differs significantly from most Western economies, where governments do not control such large swathes of commercial assets. Moreover, as we have discussed above, interest rates are still controlled as financial sector reform is ongoing. A traditional debt sustainability analysis based on primary fiscal balances and a comparison between real GDP growth and real interest rates would therefore be of limited use. To assess debt sustainability, we reach a reliable estimate of the existing debt stock and set it against a reliable measure of available assets.

In the chart below we have constructed a series for total debt by adding the debt of different groups of borrowers. The household debt and corporate debt are taken from the National Bureau of Statistics (NBS) database. To this we have added data from the NBS and the PBOC on the debt levels of the central government and finally the debt levels of local governments. On this basis we construct our first estimate of the total indebtedness of China as of end-2014 at 187.3% of GDP.

## A Borrower-Based Estimate of China's Total Debt

Exhibit 46: China: Total Debt  
2009–2014



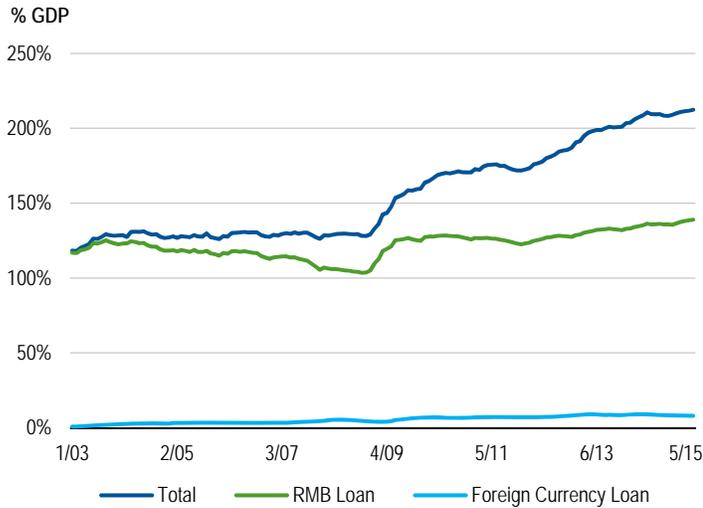
Sources: National Bureau of Statistics, China; Peoples Bank of China, IMF.

A second measure of total debt uses a new statistic, called Total Social Financing (TSF). This is a statistic developed by the PBOC in an attempt to measure total liquidity in the system. TSF is a flow, rather than stock, concept, so net increases in each component are measured in each time period. We have TSF data from January 2002 on a monthly basis. The PBOC does not report a stock counterpart for TSF. We have calculated the implicit stock data by cumulating the flow series from January 2002 onwards. This does not result in double counting as each month only the net increase is reported (so maturing loans are removed). As the charts on page 31 show, the outstanding derived stock of TSF has been increasing since 2008, and we estimate it currently stands at 211% of GDP. This figure is higher than the first estimate of debt presented above because TSF attempts to include all off-balance sheet items in the financial system in addition to the debt levels reported by the NBS. As demonstrated in the charts on page 31, the largest part of the increase came in the aftermath of the global financial crisis, and was due to the rise in trust loans and bankers' acceptance bills.<sup>18</sup>

## A Social Financing-Based Estimate of China's Total Debt

**Exhibit 47: China: Stock of Total Social Financing (TSF)**

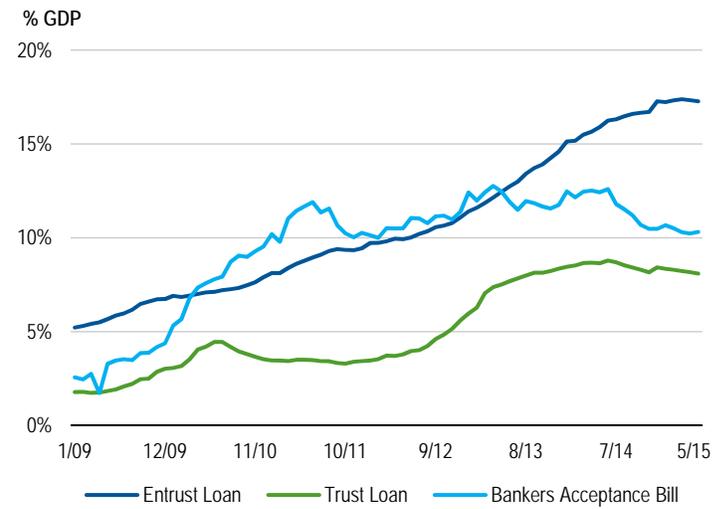
January 2003–May 2015



Source: Calculations by Templeton Global Macro using data sourced from National Bureau of Statistics, China and People's Bank of China.

**Exhibit 48: China: Stock of TSF**

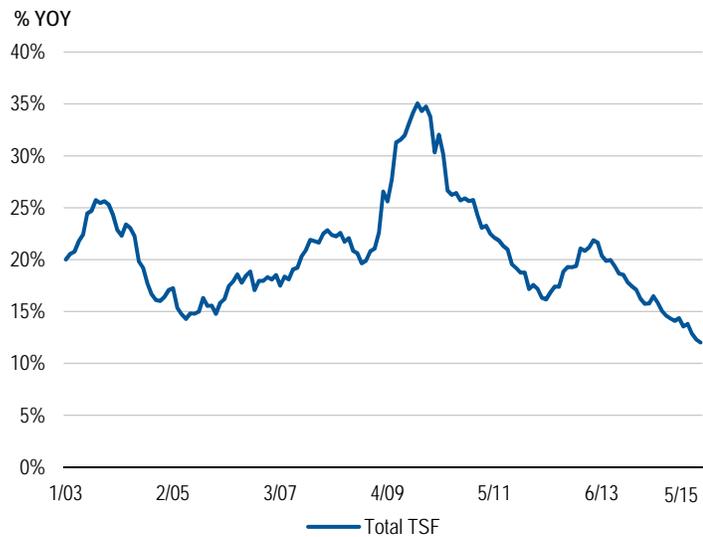
January 2009–May 2015



Source: Calculations by Templeton Global Macro using data sourced from National Bureau of Statistics, China and People's Bank of China.

**Exhibit 49: China: Stock of TSF**

January 2003–May 2015



Source: Calculations by Templeton Global Macro using data sourced from National Bureau of Statistics, China and People's Bank of China.

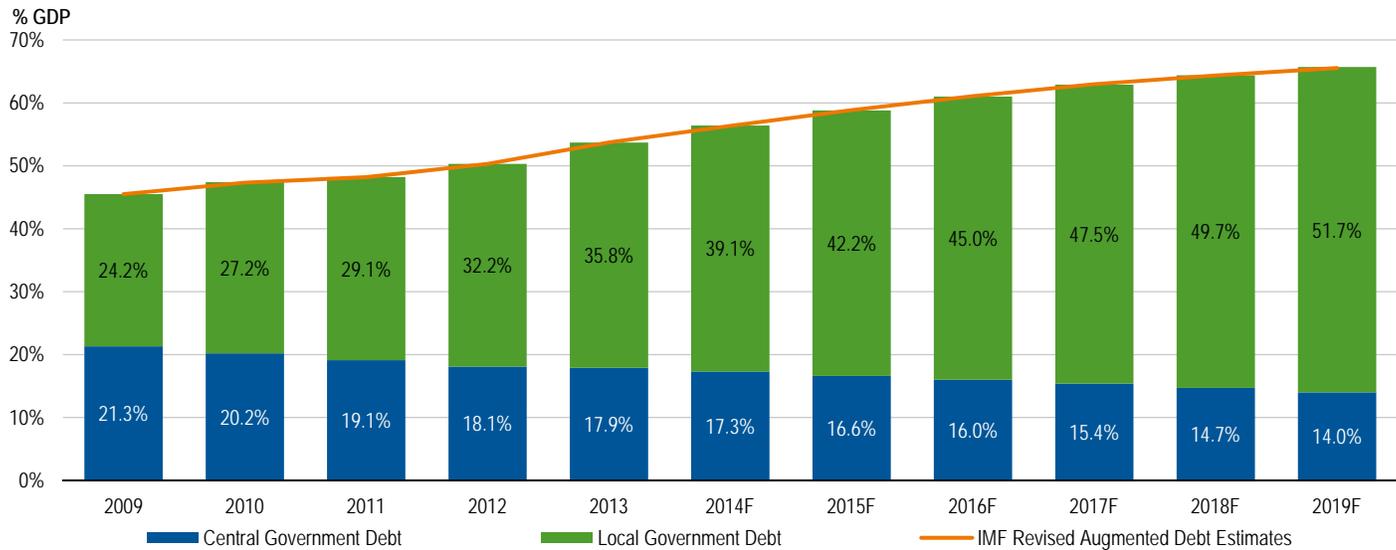
While the stock of TSF grew sharply in the 2008/2009 period, it has also decelerated very sharply, from a peak of 35% yoy growth in 2009 to the most recent low point of 12% yoy, as of May 2015.

A third way to calculate the total debt involves using the sum of bank loans plus the off-balance sheet items as calculated using TSF to proxy private sector debt and to add in the government debt (central and local). Rather than using NBS data for central and local government debt, we have used a series that the IMF has created, which augments the NBS data with a more complete picture for local governments. The IMF fiscal augmented debt

includes off-budget fiscal activities. This widens the perimeter of government to include off-budget and LGFV activity. The augmented debt captures borrowing by LGFVs through market financing channels but excludes the liabilities of SOEs and other state entities and contingent liabilities such as NPLs in the banking sector. For discussion, see Zhang and Barnett (2014).<sup>19</sup>

## China's Fiscal Augmented Total Debt/GDP

Exhibit 50: China: Fiscal Augmented Debt/GDP  
2009–2019F



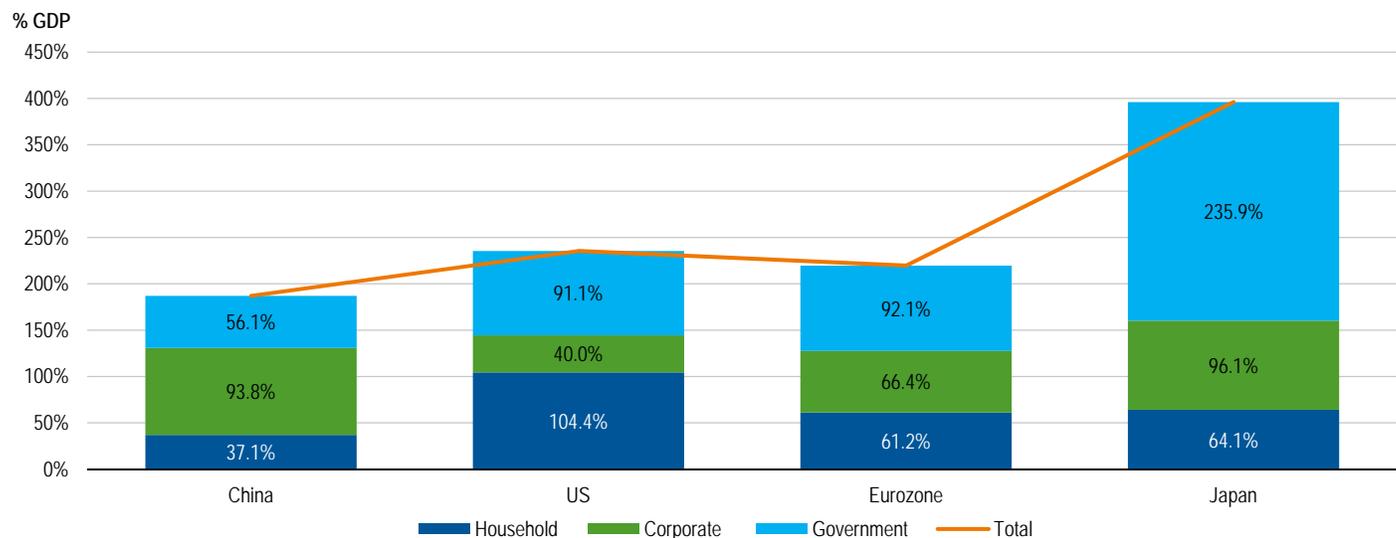
Sources: National Bureau of Statistics, China; Peoples Bank of China, IMF, as of 2013.

Based on this more complete measure of local government debt, we arrive at a measure of total debt of about 243% of GDP as of the end 2014. Thus we see the level of debt in China as being between the 187% and 243% of GDP range.

To put this number in perspective, we have compared China to a few other countries. Since we do not have measures for the wider debt definitions to make an international comparison, we can only use the first measure of China's indebtedness described above.

## China's Debt Levels Are Likely Lower Than or Comparable to Other Countries

Exhibit 51: Total Debt  
As of December 31, 2014



Sources: National Bureau of Statistics, China; Peoples Bank of China, IMF.

Even on the most conservative third measure described above, China's debt levels would still be comparable to those of the eurozone and the US; but unlike those countries, it should be noted that China's state still owns very large assets. This half of the government's balance sheet goes a long way toward mitigating concerns about the sustainability of China's debt. The asset side of the government's balance sheet includes its foreign reserves, the assets of the China Investment Corporation (CIC), the National Social Security Fund (NSSF), and of listed SOEs. In the table below, we attempt to get a sense of the size of the asset side of the government's balance sheet. The assets of the SOEs are taken from Fortune Global 500 listings, in an attempt to include only those SOEs that are large and relatively well run. For the CIC, the data are taken from the 2013 Annual Report.

### China's Strong Balance Sheet Helps Mitigate Debt Sustainability Risks

Exhibit 52: China's Balance Sheet Components

As of December 31, 2014

	USD bn	% of GDP
Foreign Reserves	3,843.02	37.0
China Investment Corp.	652.7	6.3
Social Security Fund	236.0	2.3
Listed SOEs	19,670.3	189.5
<b>Total Assets</b>	<b>235.1</b>	

Sources: People's Bank of China, National Bureau of Statistics, China. Listed SOEs reflect Templeton Global Macro calculations based on based on available asset data.

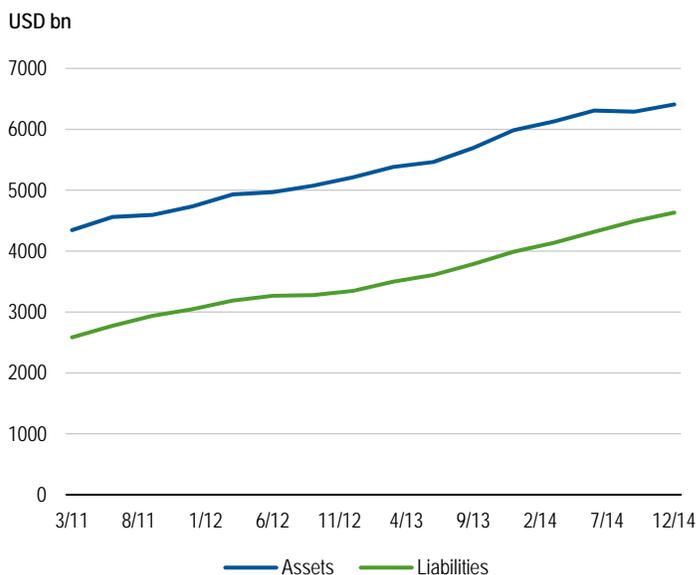
As noted above, China benefits from very high international reserves, leading to a very strong net international investment position (IIP). The assets side of the IIP mostly consists of international reserves, which stood at US\$3.7 tn as of March 2015. The liability side is dominated by strong inward FDI flows, although the "Other Investment" category, considered a proxy for "hot money," has been rising.

Therefore, we believe that at this stage debt sustainability risks are limited. While debt has increased rapidly, it has been matched by an extremely high level of assets, and China has no external debt and a strong net international investment position. Looking forward, two risks bear close monitoring: (i) the possibility that the deleveraging of local government debt, combined with financial market liberalization, could cause sudden shocks to the banking system, disrupting growth; and (ii) the possibility that the deleveraging effort might be abandoned as growth slows, resulting in additional debt accumulation.

### China Maintains a High International Investment Position

Exhibit 53: China: International Investment Position (IIP)

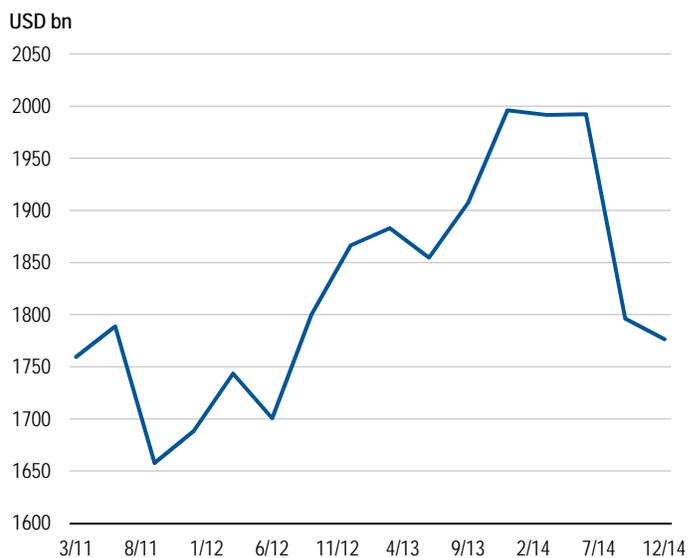
March 2011–December 2014



Source: National Bureau of Statistics, China.

Exhibit 54: China: Net IIP

March 2011–December 2014



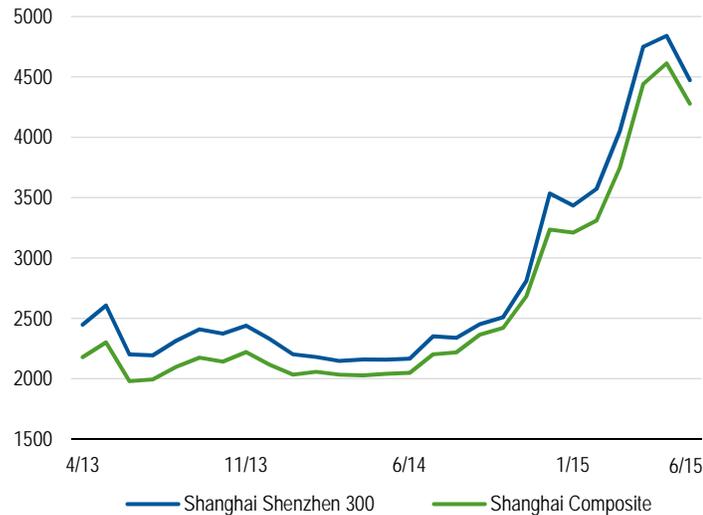
Source: National Bureau of Statistics, China.

## Equity Markets

China's domestic equity market has experienced a sharp rally, doubling over the last 12 months even as economic growth decelerated and corporate profitability weakened (see chart below). Over its relatively short history, China's domestic stock market has always been prone to extreme fluctuations, partly because it has been closed to international investors. Even though price/earnings ratios are still far from historic highs, the recent run up in valuations suggest that the market might be in bubble territory, with the attendant risk of an ensuing crash. Policymakers have taken steps to slow the rally, with restrictions on margin trading and lending. A sharp correction at end-June has confirmed the risk of a crash, and the PBOC has promptly stepped in with a cut in interest rates to slow the market's fall.

### China's Stock Market Might Be in Bubble Territory

Exhibit 55: China Stock Market  
April 2013–June 2015



Source: Bloomberg, Shanghai Stock Exchange.

A strong equity market carries benefits: (i) It provides a more attractive backdrop for IPOs, and therefore for private equity financing, opening up a new financing opportunity for small and medium-sized enterprises which have more limited access to credit; (ii) it creates a better backdrop for privatizations, supporting the SOE reform process; and (iii) as share ownership has broadened over the course of the rally, it can also give some support to domestic consumption via a wealth effect, even if limited (equity ownership remains extremely low in China at less than 2% of household assets). Policymakers are therefore trying to strike the right balance. They want to prevent a stock market crash, which would not only pose a risk to economic growth, but also set back the progress in making the equity market a more important part of the economy, both as a source of financing for corporates and as an investment opportunity for savers. They will prefer, however, to help the market stabilize rather than to fuel another sharp run-up in valuations that could set the stage for a full-fledged crash.

# Conclusion

---

---

Discussions on China are often polarized between two extremes: the doomsday view of the hard-core skeptics and the unconditional optimism of the perma-bulls. In this paper we have strived to provide a deeper, more nuanced and balanced analysis of China's economic outlook. We believe that China's deep and complex transformation has reached a critical juncture:

- Contraction in three key areas will continue to curb growth: the traditional manufacturing sector, real estate and construction, and local government financing. These had been China's traditional growth engines; they have all stalled at the same time.
- Traditional manufacturing has lost competitiveness due to rising wage pressure. This has been triggered by a significant slowdown in labor force growth—the Lewis turning point.
- Slower labor force growth, however, means that the rising service sector should be able to maintain full employment. Together with rising wages, this drives the increase in consumption needed to rebalance the economy. The development of a high-tech and high-value-added manufacturing sector will support this shift.
- Meanwhile, SOE reform, capital account liberalization and exchange rate stability strengthen long-term prospects. A number of planned domestic and cross-border infrastructure projects could also promote significant growth as the economy continues to rebalance.

Policymakers have the right strategy in place, but three significant risks bear watching: (i) Responding to the growth slowdown, monetary policy might halt the deleveraging process and fuel another round of excess credit growth; (ii) the unwinding of local government debt could cause sudden shocks to the banking system; or it might be reversed, leading to unsustainable debt accumulation; and (iii) China's buoyant equity market could crash, harming economic growth and delaying the time when equity markets can play a bigger role in the funding and savings markets.

Overall, based on our detailed analysis we believe China's search for a new equilibrium will succeed. We reaffirm our baseline view that China remains on course, with GDP growth soft-landing to about 6% as the economy rebalances. This would give important support to global growth and put a floor under commodity markets—though China's absorption of industrial metals will likely diminish further. China's trade will gradually reorient from commodity producers to advanced economies providing finished and industrial goods; and sustained wage growth implies that China should gradually export a more inflationary push to the rest of the world, reinforcing our view that, starting with the US, the outlook remains for higher inflation rates and higher interest rates.

## WHAT ARE THE RISKS?

All investments involve risks, including possible loss of principal. Bond prices generally move in the opposite direction of interest rates. Thus, as the prices of bonds in an investment portfolio adjust to a rise in interest rates, the value of the portfolio may decline. Special risks are associated with foreign investing, including currency fluctuations, economic instability and political developments. Investments in developing markets, of which frontier markets are a subset, involve heightened risks related to the same factors, in addition to those associated with these markets' smaller size, lesser liquidity and lack of established legal, political, business and social frameworks to support securities markets.

## IMPORTANT LEGAL INFORMATION

This material reflects the analysis and opinions of the authors as of July 8, 2015, and may differ from the opinions of other portfolio managers, investment teams or platforms at Franklin Templeton Investments. It is intended to be of general interest only and should not be construed as individual investment advice or a recommendation or solicitation to buy, sell or hold any security or to adopt any investment strategy. It does not constitute legal or tax advice.

The views expressed and the comments, opinions and analyses are rendered as of the publication date and may change without notice. The information provided in this material is not intended as a complete analysis of every material fact regarding any country, region or market, industry or strategy. **All investments involve risks, including possible loss of principal.**

Data from third party sources may have been used in the preparation of this material and Franklin Templeton Investments ("FTI") has not independently verified, validated or audited such data. FTI accepts no liability whatsoever for any loss arising from use of this information and reliance upon the comments opinions and analyses in the material is at the sole discretion of the user.

Products, services and information may not be available in all jurisdictions and are offered outside the U.S. by other FTI affiliates and/or their distributors as local laws and regulation permits. Please consult your own professional adviser for further information on availability of products and services in your jurisdiction.

Issued in the U.S. by Franklin Templeton Distributors, Inc., One Franklin Parkway, San Mateo, California 94403-1906, (800) DIAL BEN/342-5236, franklintempleton.com - Franklin Templeton Distributors, Inc. is the principal distributor of Franklin Templeton Investments' U.S. registered products, which are available only in jurisdictions where an offer or solicitation of such products is permitted under applicable laws and regulation.

**Australia:** Issued by Franklin Templeton Investments Australia Limited (ABN 87 006 972 247) (Australian Financial Services License Holder No. 225328), Level 19, 101 Collins Street, Melbourne, Victoria, 3000.

**Austria/Germany:** Issued by Franklin Templeton Investment Services GmbH, Mainzer Landstraße 16, D-60325 Frankfurt am Main, Germany. Authorized in Germany by IHK Frankfurt M., Reg. no. D-F-125-TMX1-08.

**Canada:** Issued by Franklin Templeton Investments Corp., 5000 Yonge Street, Suite 900 Toronto, ON, M2N 0A7, Fax: (416) 364-1163, (800) 387-0830, [www.franklintempleton.ca](http://www.franklintempleton.ca).

**Dubai:** Issued by the branch of Franklin Templeton Investment Management Limited (FTIML) in Dubai. Gate, East Wing, Level 2, Dubai International Financial Centre, P.O. Box 506613, Dubai, U.A.E., Tel.: +9714-4284100 Fax: +9714-4284140. Authorized and regulated by the Dubai Financial Services Authority.

**France:** Issued by Franklin Templeton France S.A., 20 rue de la Paix, 75002 Paris France.

**Hong Kong:** Issued by Franklin Templeton Investments (Asia) Limited, 17/F, Chater House, 8 Connaught Road Central, Hong Kong.

**Italy:** Issued by Franklin Templeton Italia Sim S.p.A., Corso Italia, 1 – Milan, 20122, Italy.

**Japan:** Issued by Franklin Templeton Investments Japan Limited.

**Korea:** Issued by Franklin Templeton Investment Trust Management Co., Ltd., 3rd fl., CCMM Building, 12 Youido-Dong, Youngdungpo-Gu, Seoul, Korea 150-968.

**Luxembourg/Benelux:** Issued by Franklin Templeton International Services, S.à r.l. – Supervised by the *Commission de Surveillance du Secteur Financier* - 8A, rue Albert Borschette, L-1246 Luxembourg - Tel: +352-46 66 67-1 - Fax: +352-46 66 76.

**Malaysia:** Issued by Franklin Templeton Asset Management (Malaysia) Sdn. Bhd. & Franklin Templeton GSC Asset Management Sdn. Bhd.

**Nordic regions:** Issued by Franklin Templeton Investment Management Limited (FTIML), Swedish Branch, Blasieholmsgatan 5, Se-111 48 Stockholm, Sweden. FTIML is authorised and regulated in the United Kingdom by the Financial Conduct Authority and is authorised to conduct certain investment

services in Denmark, Sweden, Norway & Finland.

**Poland:** Issued by Franklin Templeton Investments Poland Sp. z o.o.; Rondo ONZ 1; 00-124 Warsaw.

**Romania:** Issued by the Bucharest branch of Franklin Templeton Investment Management Limited, 78-80 Buzesti Street, Premium Point, 7th-8th Floor, 011017 Bucharest 1, Romania. Registered with CNVM under no. PJM05SSAM/400001/14.09.2009, and authorized and regulated in the UK by the Financial Conduct Authority.

**Singapore:** Issued by Templeton Asset Management Ltd. Registration No. (UEN) 199205211E, 7 Temasek Boulevard, #38-03 Suntec Tower One, 038987, Singapore.

**Spain:** Issued by the branch of Franklin Templeton Investment Management, Professional of the Financial Sector under the Supervision of CNMV, José Ortega y Gasset 29, Madrid.

**South Africa:** Issued by Franklin Templeton Investments SA (PTY) Ltd which is an authorized Financial Services Provider. Tel: +27 (11) 341 2300 Fax: +27 (11) 341 2301.

**Switzerland & Liechtenstein:** Issued by Franklin Templeton Switzerland Ltd, Stockerstrasse 38, CH-8002 Zurich.

**UK:** Issued by Franklin Templeton Investment Management Limited (FTIML), registered office: Cannon Place, 78 Cannon Street, London, EC4N 6HL. Authorized and regulated in the United Kingdom by the Financial Conduct Authority.

**Offshore Americas:** In the U.S., this publication is made available only to financial intermediaries by Templeton/Franklin Investment Services, 100 Fountain Parkway, St. Petersburg, Florida 33716. Tel: (800) 239-3894 (USA Toll-Free), (877) 389-0076 (Canada Toll-Free), and Fax: (727) 299-8736. Investments are not FDIC insured; may lose value; and are not bank guaranteed. Distribution outside the U.S. may be made by Templeton Global Advisors Limited or other sub-distributors, intermediaries, dealers or professional investors that have been engaged by Templeton Global Advisors Limited to distribute shares of Franklin Templeton funds in certain jurisdictions. This is not an offer to sell or a solicitation of an offer to purchase securities in any jurisdiction where it would be illegal to do so.

1. ABS = asset-backed securities.
2. Source: Zhang, W., Han, G. and Chan S. "How strong have been the linkages between real estate and other sectors in China" (2014). HKMR Working Paper No. 11/2014.
3. Source: *China Daily*, "China Issues Rules to Manage Local Government Debts," February 10, 2014.
4. Source: National Audit Office of the People's Republic of China.
5. Source: United Nations, Department of Economic and Social Affairs.
6. Source: Lu Yang and Cai Fang "China's Shift from the Demographic Dividend to the Reform Dividend," Australian National University China Update 2014.
7. Source: Wang, Xiaolu and Woo, Wing Thy (2011) "The size and distribution of hidden household income in China," *Asian Economic Papers* 1 (10, 2011): 1–31.
8. Source: Yiping Huang, "Where will the Chinese economy land?" *East Asia Forum*, 2014.
9. Source: National Science Foundation, Science and Engineering Indicators, 2014.
10. Source: Yu Xie, Chunni Zhang and Qing Lai (2014), "China's rise as a major contributor to science and technology," *Proceedings of the National Academy of Sciences Online*, [www.pnas.org](http://www.pnas.org).
11. Ibid.
12. Source: Groombridge, M.A. (2001) "Capital Account Liberalization in China: Prospects, Prerequisites and Pitfalls," *Cato Journal*, Vol. 21(1), pp. 119–131.
13. Source: "Capital account liberalization: international experience and implications for China," opening speech for conference, November 17, 2008, © Hong Kong Monetary Authority.
14. Source: Huang, Yiping and Yang, Ji (2014) "How will financial reform change the Chinese economy? Lessons from other middle-income countries," manuscript, National School of Development, Peking University.
15. Source: Agenor, P.R. and Montiel, P.J. (1999) *Development Macroeconomics*, 2nd edition, Princeton University Press.
16. Source: HSBC, "On the New Silk Road III: Paving the way from vision to reality," April 21, 2015.
17. Source: Xin Wang and Yi Wen (2013) "Is government spending a free lunch? Evidence from China," Federal Reserve Bank of St Louis Working Paper 2013-013A.
18. Trust loans are a direct form of financing. The Trustee (a trust company) invests clients' funds (from rich individuals or corporates) according to pre-specified objectives, purpose, amount, maturity and interest rate. Trust loans are typically invested as loans to the real sector (e.g., firms, real estate companies, local governments) or in financial assets. Trust loans are collateralized. Bankers acceptance bills (BABs) are short-term debt issued by firms, with the debt guaranteed by a commercial bank, typically part of commercial transaction. BABs can be traded at a discount from face value in the secondary market. If accepted by a bank, they become short-term credit and are recorded as bill financing. By definition, BABs are collateralized, they are similar to a letter of credit.
19. Source: Zhang, Y.S. and Barnett, S. (2014) "Fiscal vulnerabilities and risks from local government finance in China," IMF Working Paper WP/14/4.

For Exhibits 20, 23, 43 and 50, there is no assurance that any estimate or projection will be realized.

See [www.franklintempletondatasources.com](http://www.franklintempletondatasources.com) for additional data provider information.



**FRANKLIN TEMPLETON  
INVESTMENTS**

Please visit [www.franklinresources.com](http://www.franklinresources.com) to be directed to your local Franklin Templeton website.