

# People's Republic of China Rating Report

SCOPE

A+

STABLE  
OUTLOOK

## Credit strengths

- Strong growth within a large and diversified economy
- High external resilience, alongside internationalisation of the FX
- Control over parts of the economy facilitates effective reform

## Credit weaknesses

- Significant increases in non-financial sector debt
- Large public deficits and growing public sector debt stock
- Higher than potential economic growth creates imbalances

## Ratings and outlook

### Foreign currency

Long-term issuer rating	A+/Stable
Senior unsecured debt	A+/Stable
Short-term issuer rating	S-1+/Stable

### Local currency

Long-term issuer rating	A+/Stable
Senior unsecured debt	A+/Stable
Short-term issuer rating	S-1+/Stable

**Rating rationale and outlook:** The downgrade of China's long-term sovereign rating to A+ reflects the significant increase in non-financial sector debt since 2008; large public sector deficits; a growing public sector debt stock, including that of local government financing vehicles; as well as weaker current account surpluses and international reserve levels. Renewed momentum in significant economic reforms will be critical to breaking this trajectory of debt – the 19th National Congress next month could present greater clarity on that point. China maintains material credit strengths, including strong external resilience, low external debt and the internationalisation of the yuan. Moreover, growth in China's large and diversified economy remains high and the government retains significant scope to facilitate effective reform. The Outlooks are Stable.

## Lead analyst

Dennis Shen  
+49 69 6677389-68  
[d.shen@scoperatings.com](mailto:d.shen@scoperatings.com)

## Team leader

Dr Giacomo Barisone  
+49 69 6677389-22  
[g.barisone@scoperatings.com](mailto:g.barisone@scoperatings.com)

## Scope Ratings AG

Neue Mainzer Straße 66-68  
60311 Frankfurt am Main

Phone + 49 69 6677389 0

## Headquarters

Lennéstraße 5  
10785 Berlin

Phone +49 30 27891 0  
Fax +49 30 27891 100

[info@scoperatings.com](mailto:info@scoperatings.com)  
[www.scoperatings.com](http://www.scoperatings.com)


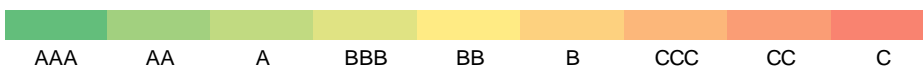
  Bloomberg: SCOP

Figure 1: Sovereign scorecard results

Scope's sovereign risk categories	China	Peer Comparison		
		Average	Japan	Spain
Domestic Economic Risk				
Public Finance Risk				
External Economic Risk				
Financial Risk				
Political and Institutional Risk				
Qualitative adjustment (notches)	+1		+1	-1
Final rating	A+		A+	A-



NB. The comparison is based on Scope's Core Variable Scorecard (CVS), which is determined by relative rankings of key sovereign credit fundamentals. The CVS peer group average is shown together with two selected countries chosen from the entire CVS peer group. The CVS rating can be adjusted by up to three notches depending on the size of relative credit strengths or weaknesses.

## Positive rating-change drivers

- Acceleration of reforms, breaking the trajectory of rising debt ratios
- Significant consolidation of fiscal deficit, restraining public sector debt
- Yuan increases as reserve currency

## Negative rating-change drivers

- Continued rise in non-financial sector debt, threatening financial stability
- Deterioration in public finances
- Renewed capital outflows, undermining external resilience

### Domestic economic risk

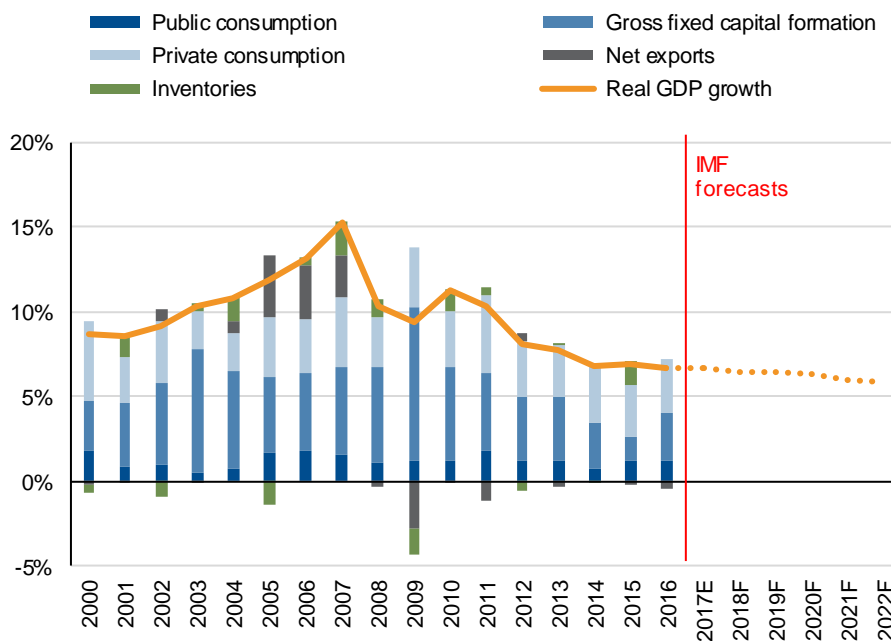
#### Growth transition continues

China is continuing its transition towards more sustainable growth. Real growth slowed to 6.7% in 2016, down from 6.9% in 2015 (and a recent peak of 10.6% in 2010), but was in line with the authorities' 2016 target of 6.5-7.0%. Despite this slowdown on an annual basis, the momentum of the Chinese economy accelerated over the course of the year and into 2017. In part, after a near constant deceleration in annual output growth since early 2010, the modest re-acceleration since the second half of 2016 reflects the government's interest in stronger growth ahead of next month's 19th National Congress, which will decide a future generation of leaders. Fiscal policy has remained expansionary, and credit growth, while slowing down, still stands at above 10% YoY.

#### China will meet 2017 growth target

China's annual growth rate in 2017 is expected to remain robust thanks to the effects of stronger external demand (owing to a recovering global economy), strong consumer trends and support from policy stimulus. Real growth increased to 6.9% in the first half of 2017. While growth momentum should slow late in the year, owing to regulatory tightening of financial conditions and the removal of fiscal stimulus after October's congress, Scope expects the government to meet its 2017 growth target of around 6.5% 'or higher if possible in practice'.

Figure 2: Percentage point contribution to real GDP growth, annual change



Source: IMF, Scope Ratings AG calculations

#### Table of Contents

- Domestic economic risk..... 2
- Public finance risk ..... 2
- External economic risk ..... 5
- Financial stability risk..... 8
- Institutional and political risk ..... 11
- I. Appendix: CVS and QS results... 16
- II. Appendix: CVS and QS results... 17
- III. Appendix: Peer comparison ..... 18
- IV. Appendix: Statistical tables..... 19
- V. Regulatory disclosures ..... 20

High frequency indicators have sent mixed signals so far in Q3. While factory output, fixed-asset investment (+7.8% YoY in the first eight months of 2017, the slowest increase since 1999) and retail sales cooled in July and August, the Manufacturing Purchasing Managers' Index (PMI) remained resilient in August while steel output reached new peaks in August. Though the non-manufacturing PMI fell to 53.4 in August from 54.5 in July and cement output shrank on an annual basis, an index for consumer confidence rose in July to the highest level since 1996, recovering sharply from 2016 lows.

**Risk that government will facilitate 2020 growth target via expansionary policy**

Moving ahead, growth should remain high, though Scope expects the rate to fall gradually – reflecting the ongoing structural adjustment. Official GDP growth targets have been adjusted downwards gradually and government emphasis is shifting towards the quality rather than the quantity of growth. However, this adjustment is unlikely to be rapid as economic growth remains essential to meeting the goals of China's current Five-Year Plan and is still seen as critical for the maintenance of social stability. Given the use of stimulus to meet economic targets in recent years, there remains the significant possibility that the government will do enough, by maintaining an adequately expansionary macroeconomic policy, to enable a doubling of 2010 real GDP by 2020 as per objectives. This scenario was incorporated in the IMF's upwardly revised baseline expectations for average growth over 2018-20, to 6.4% from 6.0%. China's Five-Year Plan calls for average growth of about 6.5% over the 2016-20 period.

**Scope expects medium-run potential growth to decline towards 5%**

While China's GDP growth will remain high compared to that of the sovereign's peer group, potential growth is likely to continue falling in the coming years. Scope expects medium-run potential growth in China to move towards 5%. While China's total population is not expected to enter decline until around 2030, the country's working-age population started to decrease in 2015 owing to demographic ageing. The working-age population is projected to average a fall of about 0.1% per annum over the medium term as per UN forecasts (a sharp decline from average working-age population growth of 1.4% over 2000-09)<sup>1</sup>. In addition, Scope's estimate of medium-term potential growth assumes a modest negative contribution from reductions in labour force participation and a neutral contribution from changes in the employment rate. Implicitly, Scope assumes that labour productivity growth will recede to between 5% and 5.5% over the medium run.

**Continued debt accumulation drives rating downgrade**

China's actual growth will probably exceed Scope's estimate for potential growth, which implies continued above-potential growth supported by policy accommodation. As such, elevated (even if gradually declining) growth in the next years will come at the cost of probable further increases in private and public sector debt, even though a new government focus on financial risks will mitigate this to an extent. Based on the downsides associated with higher growth in China's case, Scope views higher near-term growth in China – if fuelled by continued debt accumulation – to be credit-negative, increasing risks for a harder correction later on. In turn, this impacts Scope's downgrade of China's sovereign rating: we consider policymakers' continued attention on high growth to be a core weakness.

**Economic rebalancing has moved ahead**

China's economy is rebalancing towards services and consumption. Manufacturing's share in the economy declined to 40% in 2016, from 46% in 2010, with a parallel rise in services' share to 52% from 44% in 2010. Total consumption's share of nominal GDP rose to 54% in 2016, from 48% in 2010. Likewise, gross fixed investment's share declined to 43% from 45% in 2010. The transition to a more consumption-based economic model could be credit-positive in the medium term, if it reduces the dependence on debt-financing of economic growth and enhances overall public and private sector debt sustainability.

The household savings rate remains very high at 38% in 2014, but is down from peaks of over 42% in 2010.

**Economic and financial reforms support ratings**

Policymakers have concentrated on addressing financial sector risks, resulting in a tightening of financial conditions in advance of the party's National Congress. More restrictive policies have been implemented, including new rules to reduce regulatory arbitrage and the establishment of the Financial Stability and Development Commission to intermediate between financial supervisors. Investigations were launched into

<sup>1</sup> UN Population Division's average forecast for annual working-age population change in 2021 and 2022.

excessive lending practices and the People's Bank of China (PBOC) started to remove monetary policy accommodation. As a result, credit expansion to corporates has moderated since the end of 2015.

The government's broader reform agenda supports China's ratings. Furthermore, the authorities have initiated changes to reduce overcapacity in the coal and steel sectors, and are expanding overcapacity cuts to other sectors. The government has also set up a state enterprise restructuring fund to boost the competitiveness of some lagging state-owned enterprises (SOEs), a key area of concern. In the latest Article IV, the IMF showed that, if broadened, such efforts to resolve weak firms and comprehensively raise the efficiency of the economy could increase the contribution of productivity to growth by about 1 pp over the long term. This would hypothetically allow China to reduce dependence on investment for growth whilst keeping growth levels broadly unchanged.

Reforms are expected to be advanced during and after October's party congress, which could include an extension of capacity cuts to industries like cement and glass, and/or further changes to enhance the productivity and profitability of SOEs. The additional tightening of credit conditions as well as the implementation of government spending cuts are also anticipated. The inventory in the real estate sector could be reduced as part of ongoing efforts to curb housing bubbles. Given the momentum behind increases in China's debt and the continued prioritisation of economic growth targets that drive higher debt, significant reforms to reduce fiscal and financial vulnerabilities will constitute the critical metric to be evaluated in decisions on China's ratings over the coming period.

#### Tighter monetary policy necessary

China's monetary policy framework remains in a transition phase, with the seven-day interbank reverse repo rate providing a new central instrument. The policy stance remains accommodative, despite the seven-day repo rate being raised in two 10 bp hikes to 2.45% in Q1 2017<sup>2</sup>. With consumer price inflation at 1.8% YoY in August 2017 (having climbed from 0.8% in February) and core inflation at 2.2% YoY in the same month, the real short-term rate is only just positive and low compared with China's real growth rate. This points to the need for meaningfully tighter monetary policy to complement tougher supervisory controls on the financial system – to control against overheating economic activity, excessive lending practices and inflated asset price gains.

The PBOC's effectiveness is complicated by the institution's multiple and competing goals, including stabilising the exchange rate and domestic inflation (at around 3%), while supporting growth and financial sector resilience. In addition, while the central bank has operational independence, the central government – via the State Council – makes the decision in the end regarding the setting of rates. This subjects monetary policy to possible policy mistakes.

#### Regional initiatives to enhance China's economic and political clout

On the economic agenda, President Xi Jinping's 'Belt and Road Initiative' underlines an objective to define a China-centred trading network focusing on connectivity and cooperation between Eurasian countries. This initiative could enhance multinational cooperation in trade, investment and finance, with the aim of creating new markets for Chinese goods in the long term and enhancing the country's influence in the region. China will also play a greater role in regional economic and trade matters after the institutionalisation of the Asian Infrastructure Investment Bank alongside negotiations over the Regional Comprehensive Economic Partnership – a proposed multilateral trade agreement between 16 nations in the Asia-Pacific centred on China, following the withdrawal of the United States from the Trans-Pacific Partnership trade agreement.

<sup>2</sup> The 7-day, 14-day and 28-day reverse repo rates were raised by 10 bps twice (in February and March 2017) to 2.45%, 2.60% and 2.75%. The supplementary 6-month and 1-year medium-term lending facility loan rates were raised 10 bps twice (in January and March 2017) to 3.05% and 3.20%.

**Most significant risk to ratings  
remains rising debt**

The most significant risk to the sovereign ratings remains China's large and rising private and public (explicit and implicit) debt levels. Household debt remains moderate despite recent rapid growth, and though China's corporate sector has faced tighter scrutiny with an associated slowdown in new borrowings, the sector's debt ratio is among the highest in major economies in the world. This year's congress comes at a time when the necessity for reforming China's economic model has become apparent. However, there is still no consensus on how to proceed: some party factions advocate further liberalisation; others argue for greater state control. The result has been a sometimes convoluted policy mix representing the competing visions of China's future. Moreover, specific data limitations on China's economy restricts the rating, increasing uncertainty on current conditions and risk assessments.

Risks to China also stem from the new US administration's more protectionist policies. This remains a concern despite a 100-day plan signed in April between the US and China on increasing trade. Selective US sanctions related to the North Korea crisis are a threat to Chinese banks and oil companies, though these risks have eased somewhat after China halted the shipment of some petroleum products to North Korea and instructed lenders to suspend North Korean accounts subject to sanctions under a UN Security Council resolution. A simulation based on the IMF's Global Integrated Monetary and Fiscal Model showed that, in an extreme scenario, if the US places a 10% tariff on Chinese exports and China allowed its real exchange rate to adjust, real GDP in China would fall by about 1 pp in year one.<sup>3</sup> This effect would be greater if China retaliated with similar tariffs on US imports.

**China maintains significant  
credit strengths**

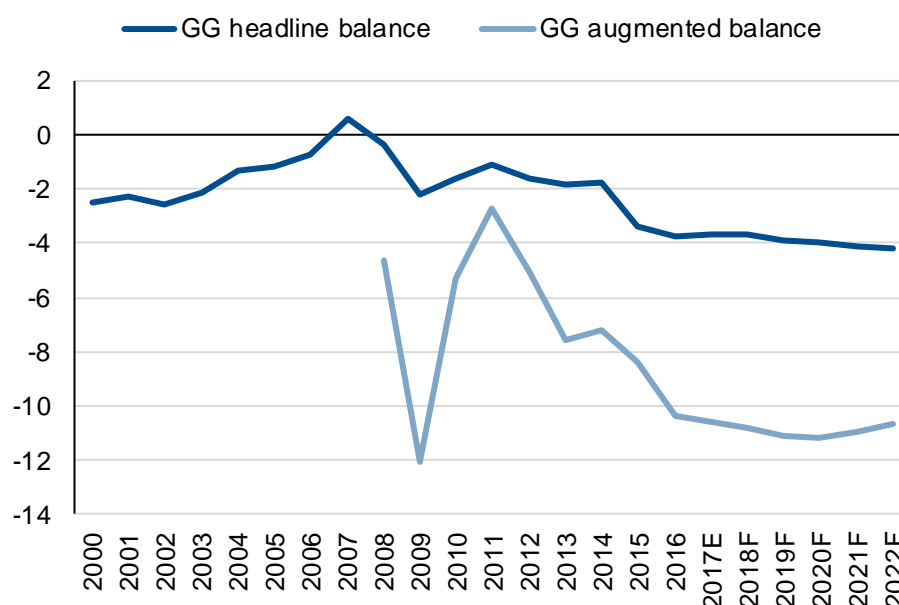
China maintains significant credit strengths through its large and well-diversified economy (with a nominal GDP of USD 11.2trn in 2016, second largest in the world; in addition, China's economy is the world's largest under purchasing power parity terms). China's ratings are also underpinned by a macroeconomic track record that has seen the transformation of China's economy since market-oriented reforms began in 1978 and the economy's resilience in the face of various financial crises. However, as China's growth eases and debt levels rise, the risks should not be understated. In addition, China's level of income and development (GDP per capita of USD 8,123 as of 2016) remains low compared with that of many 'a'-category sovereign peers. The strengths of China's credit profile, including scope for effective and rapid reform afforded by the government's partial control of the economy and financial system, allow for resilience to shocks in the near term, giving the government the breathing room to pursue further reforms in stemming prevailing imbalances.

**Public finance risk****Higher fiscal deficits**

China's general government deficit increased significantly to 3.8% of GDP in 2016, from a deficit of 3.4% in 2015 and 1.8% of GDP as of 2014. The higher deficit was driven by slowing revenue growth and an increase in expenditures since 2014 – partly to support economic activity, with greater investment in areas including education, social security and employment, as well as urban and rural community affairs. China's official deficit statistics, however, exclude specific off-balance sheet activities of local governments. To tackle this, the IMF has calculated an 'augmented net lending/borrowing' measure for China including infrastructure spending financed by local government financing vehicle (LGFV) debt, and also including the spending of off-budget special construction funds and government-guided funds. This augmented deficit estimate amounted to a significant 10.4% of GDP in 2016, an increase on an augmented deficit of 7.2% of GDP in 2014.

<sup>3</sup> International Monetary Fund. 'People's Republic of China: 2017 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for the People's Republic of China'. IMF Country Report No. 17/247, August 2017.

**Figure 3: General government balance and augmented definition, % of GDP**



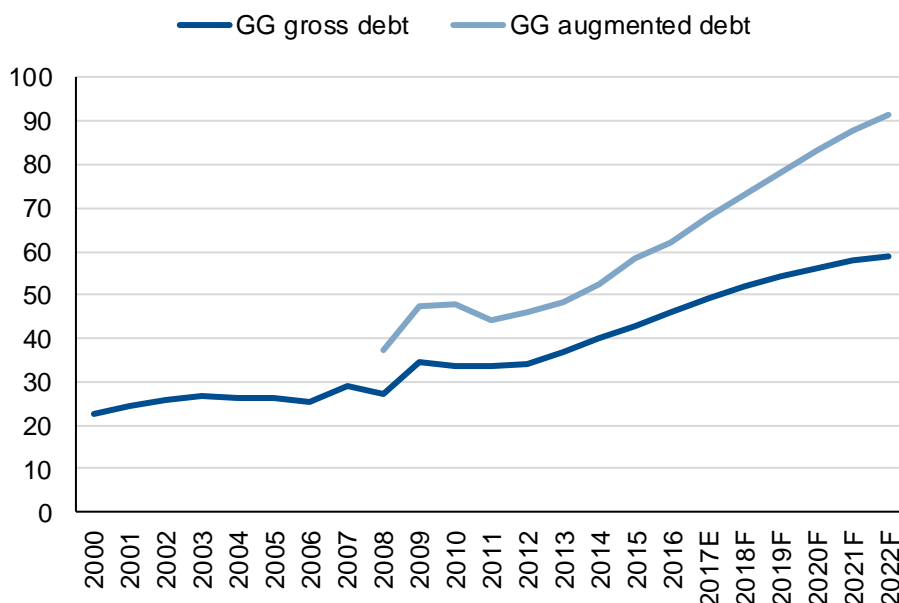
Source: IMF (with latest Article IV forecasts to 2022)

The government's official budget deficit target is 3% of GDP for 2017. With the general government balance for the first seven months of this year amounting to -1.3% of GDP (compared to -0.4% of GDP during the first seven months of 2016), and with deficits typically being much higher in the second half of the year, Scope considers there to be significant risk that the general government deficit for 2017 will exceed 3% of GDP (however, China's official accounting allows it to transfer unspent money from previous years and funds from a central government budget stabilisation fund to the general budget, permitting it to report a final deficit in line with the target). This risk to the fiscal balance exists even accounting for the fact that some spending has been front-loaded in 2017 ahead of October's congress, and will reverse afterwards.

### Public debt ratios rising

Under a narrower definition, China's general government debt totalled 44% of GDP in 2016 – which is low compared to sovereign peers. However, including the debt of LGFVs and additional debt from entities like special construction funds and government-guided funds, the IMF's estimate of the government's 'augmented debt' stood at 62% of GDP in 2016 (of which central government debt accounts for only 16% of GDP). Given continued primary deficits over the medium term, offset partly by a favourable growth-interest rate differential, China's debt ratio under the general government definition is projected to rise gradually to 62% of GDP by 2022. However, given larger augmented deficits (if local authorities retain high investment levels), augmented debt is projected to rise more significantly to 92% of GDP by 2022, according to the IMF. Scope considers this unfavourable trajectory of debt in its revised A+ assessment of China's long-term sovereign ratings.

**Figure 4: General government debt and augmented definition, % of GDP**



Source: IMF (with latest Article IV forecasts to 2022)

### Multiple initiatives have attempted to solve the LGFV debt issue

Before 2015, local governments were required to maintain balanced budgets, without the option of debt financing. This rule was circumvented with the creation of off-budget LGFVs. Under a programme launched in 2015, local governments and provinces were granted the power to issue bonds and use the money to pay down LGFV debt. However, LGFV debt continued to increase. The government's initiatives to disentangle LGFVs from the public-sector balance sheet resulted in several new guidelines restricting local governments from extending direct support to LGFVs<sup>4</sup> and stating the government's desire for LGFVs to be treated by creditors as separate from the government balance sheet. However, the continued implicit support for LGFVs means that Scope considers augmented debt metrics in its assessment of China's creditworthiness.

China's initiative to promote public-private partnerships (PPPs) to fund infrastructure, in order to remove dependence on local government debt financing, will not resolve the issue. The majority of 'social partners' for PPPs have been state-owned enterprises, meaning that new debt stemming from such projects will simply be partially moved from local government balance sheets to other public sector-linked balance sheets. That stated, authorities are tightening oversight of substandard PPP projects.

The fact that local governments in China cover a significant share of national spending yet have limited revenue autonomy results in funding shortfalls. This remains a key challenge. Greater revenue-raising capacities for local governments and adequate official debt quotas to reduce incentives to rely on off-budget borrowing should be part of any long-run solution. There is a gradual push with reforms in this direction.

### Debt structure sound at central level, but weak at local level

China's debt structure is sound at the central government level. Central government debt has an average remaining maturity of around eight years, with most central government debt domestically issued in local currency. Debt at the local level, however, is much more subject to rollover risk and market volatility: debt issued by the LGFVs have tenors of around three years, with the level of foreign currency issuance rising from low levels of

<sup>4</sup> Under the Budget Law, the debt of LGFVs should be paid by the state-owned enterprises themselves, with the government stating that local governments should not cover the liabilities.

### China has significant assets, but much of these are illiquid

late. Despite initiatives to enhance the transparency of outstanding local government debt, and better financing terms through a debt swap programme started in 2015, the short maturity of China's local government debt remains a concern.

The Chinese Academy of Social Sciences (CASS), a government think-tank in Beijing, estimated in a recent report<sup>5</sup> that Chinese government assets stood at about RMB 125trn (USD 19trn) in 2015, or about 182% of 2015 GDP. CASS therefore estimated that government net assets amounted to more than 80% of GDP, concluding that these assets offset rising debt risks. However, many of the assets included in CASS's review – including buildings, cars, land and oilfields – cannot be easily liquidated. Consequently, the metric overestimates the utility of such assets at assumed values in a stressed scenario. China has a more modest amount of liquid assets, however, including cash held in government deposits, the social security fund, and financial institutions.

The government think-tank's research, however, also pointed out risks owing to 'implicit debt' – including obligations that have an implicit state guarantee<sup>6</sup> – with China's total gross debt liabilities, including these implicit liabilities, standing at around RMB 70trn (102% of GDP) in 2015, according to CASS.

### Demographic ageing will be a fiscal issue

Given China's rapid ageing, the ratio of the elderly to the working-age population is forecast to rise from 15% in 2015 to 50% in 2050. While China still enjoys a sizeable life-cycle surplus, rapid ageing alongside increasing consumption habits will begin to erode this. Assuming China increases its social spending benefit level (by around 2050 to the average in OECD countries as of 2009), the share of social spending on education, healthcare and pensions will rise to 20% of GDP in about two decades, and to 30% by the mid-century<sup>7</sup>, requiring significant reform efforts in the coming decades.

### Falling current account surpluses

#### External economic risk

China's current account surplus fell to 1.7% of GDP in 2016, down from 2.7% of GDP in 2015 (and from a peak surplus of 9.9% of GDP in 2007). The drop in the current account surplus is primarily due to a fall in the trade-in-goods surplus, which stood at 4.4% of GDP in 2016, down from 8.5% of GDP in 2007. This fall has, in turn, been caused by: i) tepid global trade growth since 2012 impacting Chinese goods exports; ii) significant rises in China's real effective exchange rate over the past decade (about +30% since 2007) – hurting competitiveness; and iii) China's reorientation towards consumption-centred growth accompanied by a declining household savings rate, driving higher import demand. Moreover, the services balance moved to -2.2% of GDP in 2016, from +0.1% of GDP in 2007. This owes in part to higher tourism outflows, a result of the spending preferences of an increasingly middle-class public (though due to data limitations, tourism imports may be somewhat overstated, reflecting misclassified capital outflows).

In 2017, the current account surplus should further narrow to 1.4% of GDP as per IMF forecasts, due primarily to robust domestic demand and a deterioration in terms of trade, before edging gradually lower to 0.4% of GDP by 2022. The driver of this reduction remains smaller trade-in-goods surpluses.

China's net international investment position peaked in 2007 and has eased to +15% of GDP as of Q1 2017. Total external debt remains low at 12.6% of GDP at end-2016.

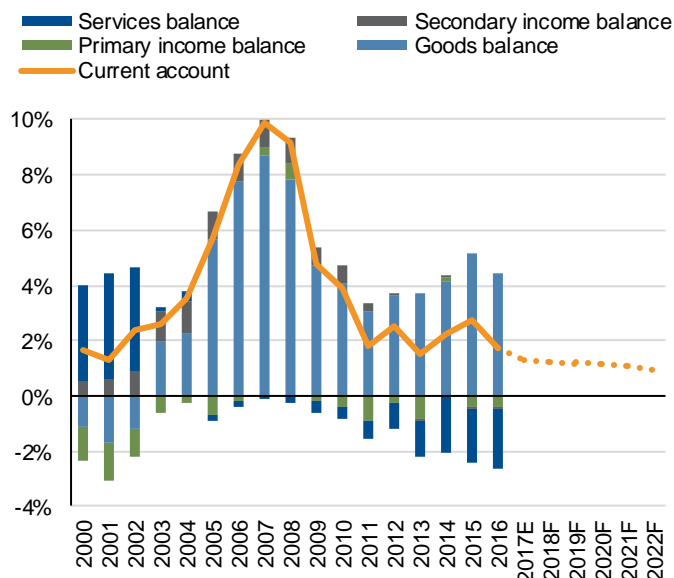
<sup>5</sup> [http://www.cass.cn/keyandongtai/xueshuhuiyi/201709/t20170901\\_3627142.html](http://www.cass.cn/keyandongtai/xueshuhuiyi/201709/t20170901_3627142.html)

<sup>6</sup> This includes bond issuance by quasi-governmental organisations like policy banks, state railway debt, contingent local government liabilities, non-performing loans held by state-owned financial institutions, hidden foreign debt, and a potential shortfall in the country's pension fund.

<sup>7</sup> Feng, Wang, Shen Ke and Yong Cai. 'Fiscal implications of aging and economic change in China'. Paper prepared for presentation at the PAA 2017 annual meeting.

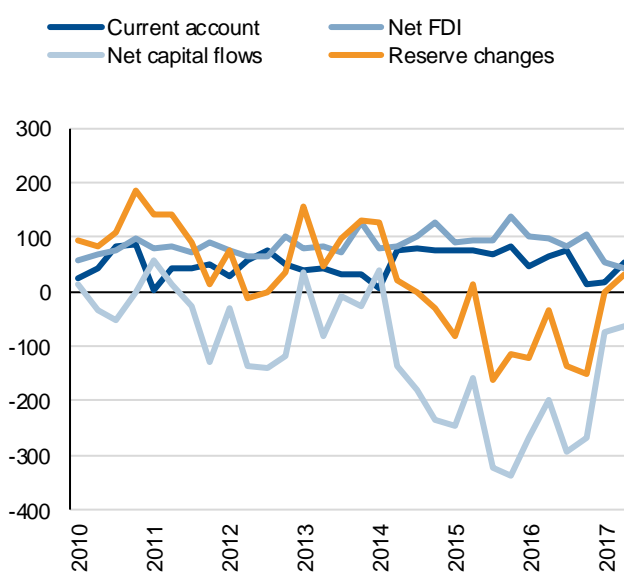


**Figure 5: Current account balance, % of GDP**



Source: IMF (with forecasts to 2022), Scope Ratings AG calculations

**Figure 6: Quarterly drivers of changes in reserves, USD bn**



Source: State Administration of Foreign Exchange (SAFE), Haver Analytics, Scope Ratings AG calculations

### Capital outflows have eased, but risks remain

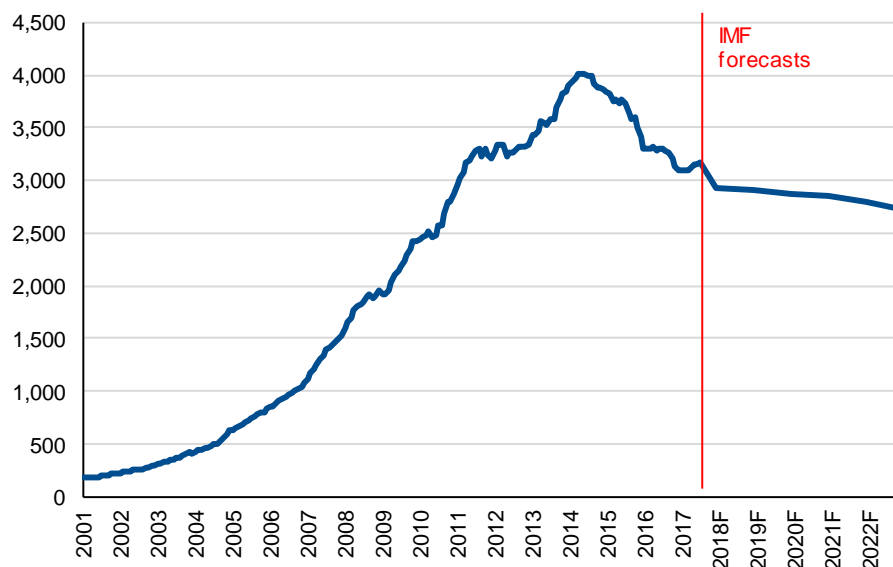
Capital outflow pressures have moderated in 2017, after persistent pressures from Q2 2014 to Q4 2016. This easing in outflows has owed to tighter enforcement of capital controls on domestic money, a somewhat stronger growth outlook in 2017 than expected, and more stable exchange rate expectations amid dollar weakness. After the renminbi depreciated 5% in nominal effective terms in 2016, it has only depreciated 1% to date in 2017 and strengthened against the dollar. Restrictions on access to foreign currency and on cross-border renminbi flows, alongside new rules on ‘irrational’ overseas mergers and acquisitions, have eased outflows – though specific restrictions have started to be lifted amid greater exchange rate stability.

Given the likely further slowdown in China’s growth rate, Scope notes the high risk that capital outflows and exchange rate pressures resume at a later stage. Capital controls – while important for affording time to redress underlying issues – are not alone a panacea, given the likelihood that methods to circumvent controls are found long term. For example, during 2015 and 2016, after access to hard currency was made difficult, Chinese companies adapted by moving money offshore in renminbi.

### Reserves remain at a very high level, but have fallen since 2014

Amid greater stability in the financial account, pressures on China’s forex reserves have eased in 2017, standing at USD 3.09trn in August, up from January 2017’s near six-year low of USD 3trn. China’s reserve stock, while still accounting for 28% of all global FX reserves (global FX reserves totalled USD 11trn as of end-May), has declined substantively from a peak of USD 4trn (in June 2014), as the PBOC sold dollars aggressively to support the renminbi. While China’s still sizeable arsenal of reserves remains a significant credit strength, giving the PBOC an abundant resource to preserve macroeconomic stability and stem balance-of-payment issues, the weaker level alongside possible further future drops (in an environment of more modest future current account surpluses and possible resumption of capital outflows) weakens coverage ratios (gross reserves to short-term debt stood at a high 356% at end-2016). This hurts China’s external strength.

**Figure 7: Official reserve assets, USD bn**

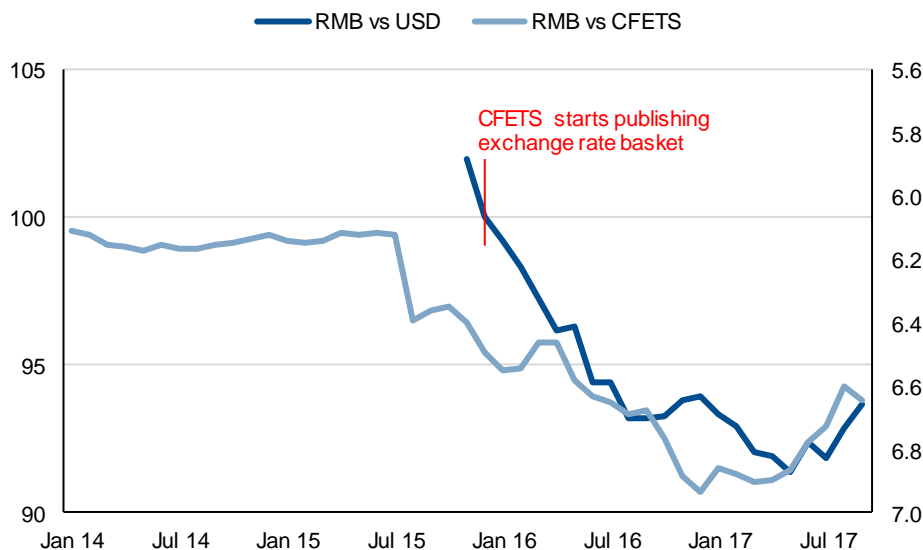


Source: State Administration of Foreign Exchange, IMF

**FX liberalisation has taken a step back**

China officially maintains a managed floating exchange rate, with a policy objective of gradually increasing exchange rate flexibility. In December 2015, the China Foreign Exchange Trade System (CFETS) started publishing an RMB Effective Exchange Rate Index (CFETS basket), with the PBOC's daily RMB/USD central parity fixing assuming adjustments in the new basket of currencies. Though the new CFETS basket has not fully replaced the dollar (as the reference), it has increased the FX's linkage to a nominal effective exchange rate. In May 2017, CFETS requested that banks further include a 'countercyclical adjustment factor' in yuan quotes with the objective of reducing 'irrational' depreciation expectations and market 'herd actions', enforcing an adjustment for economic fundamentals. This adjustment factor marks a step back in increasing the role of market forces in forex setting, indicating some concern on ensuring renminbi stability and stemming future capital outflows through administrative control.

**Figure 8: RMB parity setting, vs USD (rhs), and vs CFETS basket (Dec. 2015=100)**



Source: Bloomberg, SAFE

**Greater use of RMB in global reserves**

The increasing use of the renminbi in global markets enhances China's external resilience. According to the Bank for International Settlements, the renminbi was traded in 4% of global over-the-counter forex turnover in 2016<sup>8</sup>, up from 2.2% in 2013 and 0.9% in 2010. The internationalisation of the renminbi has, moreover, seen its inclusion in global official reserves; presently, the share of yuan claims in total global FX reserves stands at 1.1% as of Q2 2017. The renminbi's greater stability since 2017 and the currency's inclusion in the IMF's Special Drawing Rights basket of currencies (now with five currencies) since October 2016 should support demand for renminbi-denominated assets in the coming period. In Scope's view, the internationalisation of the RMB and its future increasing use in global reserves is credit-positive. However, further internationalisation of the currency may require greater liberalisation of China's capital account, which could increase China's exposure to international investor sentiment and bouts of foreign capital outflows. This could increase the volatility of the economy and financial system.

**Greater openness to global investors in the domestic bond market**

Ongoing initiatives to increase foreign participation in China's domestic bond market include the launch of the Bond Connect scheme, reflecting the opening-up of China's financial markets and the objective of enhancing access to renminbi-denominated assets. While capital account liberalisation and greater convertibility further the RMB's internationalisation, China should pace such changes as domestic financial systems and regulations are improved and made ready to cope.

**Significant increase in size of China's banking system**

China's banking sector assets amount to 310% of GDP as of Q2 2017, an increase from 192% of GDP as of Q3 2008. The size of China's banking system is above the advanced economy average and much higher than an emerging market average. The sharp growth in recent years reflects both a rise in credit to the real economy and within the financial system. The increase in the magnitude and complexity of these exposures has raised risks to financial stability.

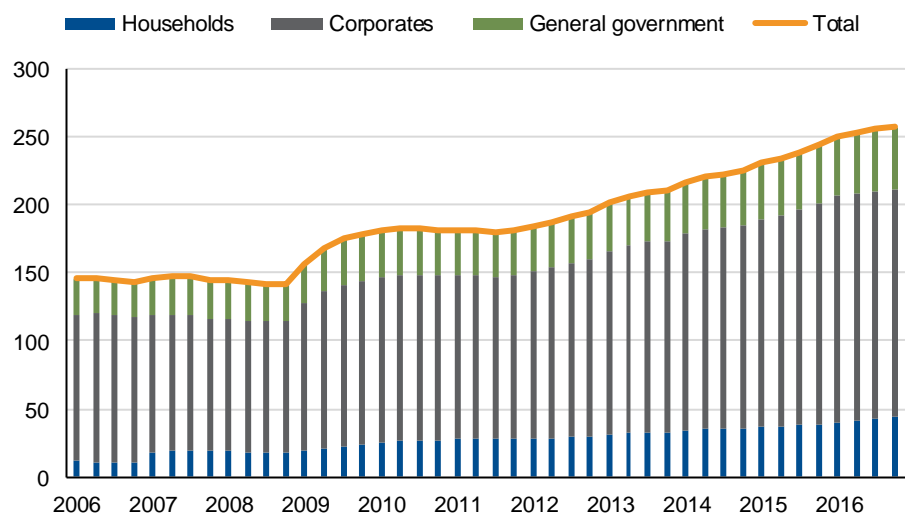
**Rising non-financial sector debt a major concern**

Economy-wide non-financial sector debt rose to 257% of GDP as of Q4 2016, according to data from the Bank for International Settlements (BIS), having risen quickly from 141% of GDP as of Q4 2008. Alongside rising general government sector debt stocks, non-financial corporate debt rose sharply to 166% of GDP in 2016 from 96% of GDP in 2008 (with much of this debt tied to the SOE sector). Increases in corporate leverage moderated over 2016 owing to increased policy attention ahead of October's party congress. However, household debt has continued to increase rapidly to 44% of GDP in 2016, from a low base of 18% of GDP as of 2008. In the latest Article IV, the IMF estimated total non-financial sector debt (which under its definition stood at a lower 236% of GDP at end-2016) to continue its rise to 297% of GDP by 2022. Debt levels will increase despite initiatives to tackle segments of the problem, due to a continued importance still attached by officials to economic growth, requiring credit and investment to offset evolving structural impediments. However, in a 'proactive reform scenario'<sup>9</sup>, the IMF added that if China implemented specific reforms to enhance productivity growth and rebalance fiscal policy away from debt-fuelled investment, China's total debt could peak instead over the medium term at 270% of GDP, an increase of 35 pp of GDP.

<sup>8</sup> Bank for International Settlements. (2016) 'Triennial Central Bank Survey: Foreign exchange turnover in April 2016'. September 2016.

<sup>9</sup> International Monetary Fund. 'People's Republic of China: 2017 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for the People's Republic of China'. IMF Country Report No. 17/247, August 2017.

**Figure 9: Non-financial sector debt by sectoral contribution, % of GDP**



Source: BIS, Scope Ratings AG calculations

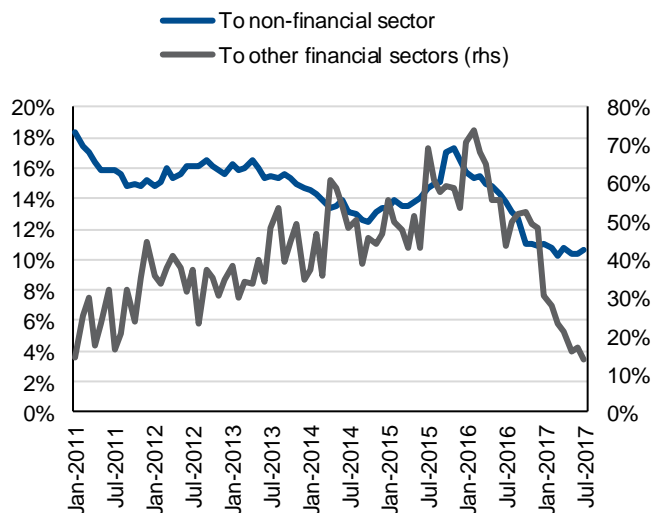
Such significant debt increases over such a short time have been associated with sharp growth slowdowns and, frequently, financial crises. The IMF estimated that, had credit growth been kept to a sustainable rate, real GDP growth would have been around 5.5% between 2012 and 2016, rather than 7.3%.<sup>10</sup> This unfavourable trajectory of public and private sector debt (and consequently, of direct and contingent state liabilities) informs Scope's revised assessment of China's sovereign ratings. While China's debt levels are not uncommon in highly rated countries, they are less frequent in countries with China's per-capita income and financial market depth.

### Areas of credit growth have moderated, and property price growth has cooled

Total lending in China to the non-financial sector rose 10.6% YoY in July 2017, a sharp drop from the more than 17% YoY growth as of late 2015. Mortgages have accounted for a significant share of new loans, adding fuel to the property market boom that has recently showed signs of cooling: property price growth in tier 1 cities (Beijing, Shanghai, Guangzhou, etc.) has eased to around 12% YoY as of July 2017, from over 20% YoY in late 2016, though real estate price growth has picked up in certain smaller cities. New-home prices, excluding government-subsidised housing, rose in 46 of 70 cities in August 2017, the smallest number of increases since January. The nation is currently pursuing a city-by-city campaign to rein in house prices, including requiring greater down payments, increasing eligibility requirements for buyers, and banning home resales in the years after purchase. Intra-financial system lending also dropped sharply to 13.9% YoY in July, from more than 70% YoY in early 2016.

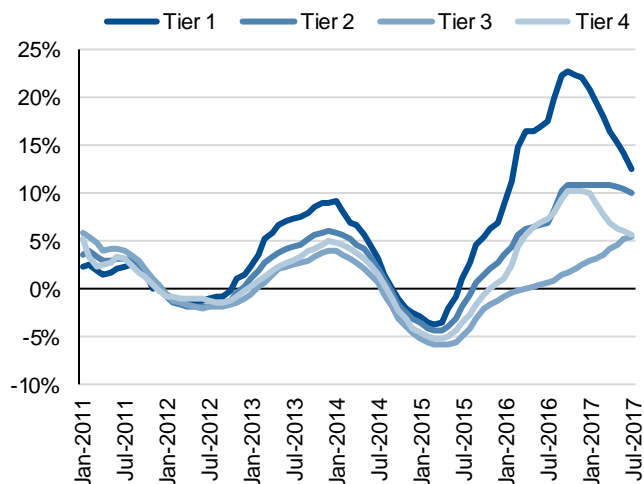
<sup>10</sup> International Monetary Fund. 'People's Republic of China: 2017 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for the People's Republic of China'. IMF Country Report No. 17/247, August 2017.

**Figure 10: Lending to non-financial sector and to other financial sectors, % YoY**



Source: People's Bank of China, Scope Ratings AG calculations

**Figure 11: Real estate price annual growth, tier 1 cities, tier 2, tier 3, tier 4**



Source: China National Bureau of Statistics, Scope Ratings AG calculations

### The government's commitment to reform is a credit strength

Important supervisory and regulatory action has been taken to contain financial sector risks. The government's commitment and ability to reform represents a continued credit strength, in Scope's view. The tightening in financial conditions has sharply cut intra-financial sector credit, a key channel that financial institutions use to raise leverage while avoiding regulatory oversight like capital and provisioning requirements on bank loans. In addition, growth in bank claims on non-bank financial institutions and off-balance sheet wealth management products has slowed after booming in recent years. In early 2017, the PBOC extended the coverage of its 'Macro-Prudential Assessment' to off-balance sheet activity for the first time by including wealth management products.

Reforms have also included those in the corporate bond market, in which market mechanisms have been dysfunctional due to the government's guarantees on the debts of SOEs. Recently, the government has taken steps to contain the rise in SOE debt and discourage some SOEs from investment, particularly in overcapacity sectors. Another reform is a programme of debt-equity swaps that aims to lower leverage in parts of the SOE sector, transferring the risks to the banking system. So far, however, the value of swaps announced is small.

Importantly, the Chinese government has started to move towards a policy of allowing selective defaults, and the number of corporate bond defaults has risen sharply since the start of 2016<sup>11</sup>. This financial tightening is welcome; however, given the size of growing imbalances, the depth of reforms remains inadequate. Debt-at-risk<sup>12</sup> rose to over 12% of total liabilities in 2016, from about 4% in 2010. Against this, banks have raised core Tier 1 capital ratios modestly, to 10.8% as of end-2016, from 10% at end-2013.

### Financial system regulation still underdeveloped

The supervision of China's financial system remains underdeveloped; and with increased scrutiny on capital outflows, the capital account remains largely closed. While this shields the economy from global financial volatility, it also restricts the development of domestic markets. However, the government's still-pervasive ownership and influence across the

<sup>11</sup> Seki, Shinichi. 'Moral hazards in China from the Perspective of the Corporate Bond Market'. RIM Pacific Business and Industries Vol. XVII, 2017 No. 63.

<sup>12</sup> Defined as the ratio of the borrowings of listed companies with interest coverage ratios of below 1 to the borrowings of total listed companies (for methodology, see the IMF's April 2016 Global Financial Stability Report).

financial system broadens the scope and effectiveness of available policy options to mitigate more adverse scenarios.

### **Institutional and political risk**

China is a semi-presidential socialist republic run by a single party, the Communist Party of China. President Xi Jinping is the head of state, while Premier Li Keqiang is the head of government, overseeing the State Council – China's cabinet. The National People's Congress is the national unicameral legislature. As a one-party state, the General Secretary of the Communist Party of China – President Xi – holds ultimate power and authority over the state and government.

China has routinely scored weakly in the World Bank's Worldwide Governance Indicators, with governance standards lagging that of 'a'-category sovereign peers. Under the Rule of Law indicator, China scored in the 44th percentile of countries in 2015, up from the 38th in 2005. Under Government Effectiveness, China's ranking stood at the 68th percentile in 2015, from the 53rd in 2005. China's Control of Corruption score stood at the 50th percentile, from the 32nd in 2005.

The anti-corruption campaign launched by President Xi in 2012 to clean up misbehaviour and shore up unity within the party has resulted in officials being removed from office, facing accusations of bribery and abuse of power. The campaign has resulted in more than 100,000 people being indicted for corruption, though the number of investigations, after peaking in 2014, has subsequently fallen. The far-reaching campaign is a major move to improve governance standards that could support greater confidence in the rule of law, improvements in the business environment and more austere public spending, though it also represents a significant consolidation of power by President Xi.

China's twice-a-decade Party Congress next month (opening on 18 October) promises to be a critical moment that will shape the political and economic outlook. With economic policy increasingly under Xi's purview, this congress will provide greater clarity on how Xi plans to manage the economy – to be outlined in his work report on day one of the Congress. With as many as five of the seven members of the Politburo Standing Committee (China's top decision-making body) expected to retire, far-reaching changes will come in the makeup of the top brass of the Communist Party.

A key area of interest will be whether President Xi (who will be confirmed in October for a further five years) consolidates greater power – potentially to an extent making him akin to 'Party Chairman', a position formally abolished in 1982 in favour of a more consensus-driven leadership model. Since then, the Communist Party General Secretary – the position held by Xi, and which replaced the Chairmanship – has been technically first among equals in the Standing Committee under a collective leadership model designed to avoid one-man rule, following the lessons of China's history. There will also be great attention on any signs that Xi may stay on in some top leadership capacity after his second term concludes in 2022 (he is required by the Constitution to step down as President after two five-year terms), whether he anoints a successor, and the extent that the Party Constitution is revised with Xi's doctrines. Alternatively, the Congress may be remembered as the moment when it became clear that the party leadership would be unwilling to allow Xi to significantly extend his powers.

It has been argued that power consolidation is needed so that a unified leadership can push ahead with critical reforms resisted by vested interests, including measures to expand productivity-enhancing transformations, a move away from 'hard' GDP growth targets and measures to boost deleveraging and crack down on China's financial sector. In Scope's view, such economic reform would be an important credit-positive element (particularly relating to the near- to medium-term outlook) that could derive from the

**Anti-corruption campaign may improve rule of law, but also represents power consolidation**

**Next month's Party Congress will prove critical for the outlook going forward**

**Party Congress could forward critical economic reforms, but consolidation of power a risk**

aftermath of the Party Congress, alongside any tempering of fiscal stimulus after the congregation's conclusion. However, Scope's view is that any significant consolidation of power, even if it bolsters important reforms in the near term, holds credit-negative implications over the long term, potentially undermining the delicate collective leadership structure in place for the decades of China's economic miracle, and reducing the quality of governance and economic policymaking over the longer term. Scope also notes the increasing role of the party in government affairs, which has intervened in the technocratic style of government of past decades.

However, given the example of past party congresses at which policy announcements were broad and unspecific, we may need to wait until the Central Economic Work Conference in December, if not the National People's Congress in March 2018 or the Third Plenum in the autumn of 2018, for greater clarity on the post-congress policy agenda.

### Geopolitical risks on the rise

Geopolitical risks to China have increased, including the danger of conflict on the Korean Peninsula, ongoing tensions in the South China Sea and other neighbouring island conflicts, and the threat of a trade war with the United States. Scope is monitoring these risks closely in its ongoing assessment.

### Methodology

The methodology applicable for this rating and/or rating outlook, 'Public Finance Sovereign Ratings', is available on [www.scoperatings.com](http://www.scoperatings.com).

Historical default rates of Scope Ratings can be viewed in the rating performance report on <https://www.scoperatings.com/governance-and-policies/regulatory/esma-registration>.

Please also refer to the central platform (CEREP) of the European Securities and Markets Authority (ESMA): <http://cerp.esma.europa.eu/cerp-web/statistics/defaults.xhtml>.

A comprehensive clarification of Scope's definition of default, definitions of rating notations can be found in Scope's public credit rating methodologies at [www.scoperatings.com](http://www.scoperatings.com).

The rating outlook indicates the most likely direction of the rating if the rating were to change within the next 12 to 18 months. A rating change is, however, not automatically ensured.

### I. Appendix: CVS and QS results

#### Sovereign rating scorecards

Scope's Core Variable Scorecard (CVS), which is based on relative rankings of key sovereign credit fundamentals, signals an indicative 'A' ('a') rating range for the People's Republic of China. This indicative rating range can be adjusted by the Qualitative Scorecard (QS) by up to three notches depending on the size of relative credit strengths or weaknesses versus peers based on analysts' qualitative analysis.

For the People's Republic of China, the following relative credit strengths are identified: 1) growth potential of the economy, 2) economic policy framework, 3) market access and funding sources, 4) external debt sustainability, 5) low vulnerability to short-term external shocks, and 6) recent events and policy decisions. Relative credit weaknesses are signalled for: 1) macroeconomic stability and imbalances, 2) fiscal performance, 3) debt sustainability, 4) current-account vulnerabilities, and 5) macro-financial vulnerabilities and fragility. Combined relative credit strengths and weaknesses generate a one-notch adjustment and signal a sovereign rating of A+ for China. A rating committee discussed and confirmed these results.

#### Rating overview

CVS category rating range	a
QS adjustment	A+
Final rating	A+

To calculate the rating score within the CVS, Scope uses a minimum-maximum algorithm to determine a rating score for each of the 22 indicators. Scope calculates the minimum and maximum of each rating indicator and places each sovereign within this range. Sovereigns with the strongest results for each rating indicator receive the highest rating score; sovereigns with the weakest results receive the lowest rating score. The score result translates to an indicative rating range that is always presented in lower-case letters.

Within the QS assessment, analysts conduct a comprehensive review of the qualitative factors. This includes but is not limited to economic scenario analysis, review of debt sustainability, fiscal and financial performance and policy implementation assessments.

There are three assessments per category for a total of 15. For each assessment, the analyst examines the relative position of a given sovereign within its peer group. For this purpose, additional comparative analysis beyond the variables included in the CVS is conducted. These assessments are then aggregated using the same weighting system as in the CVS.

The result is the implied QS notch adjustment, which is the basis for the analysts' recommendation to the rating committee.

#### Foreign- versus local-currency ratings

China's debt is issued predominantly in yuan (99.8% of central government debt was denominated in local currency as of Q1 2017). Because of China's history of debt repayment, low outstanding foreign currency debt, managed floating currency alongside significant FX reserves (which stem from balance-of-payment crises and sudden risks to the repayment of foreign currency-denominated debt), Scope sees no evidence that China would differentiate among any contractual debt obligations based on currency denomination.



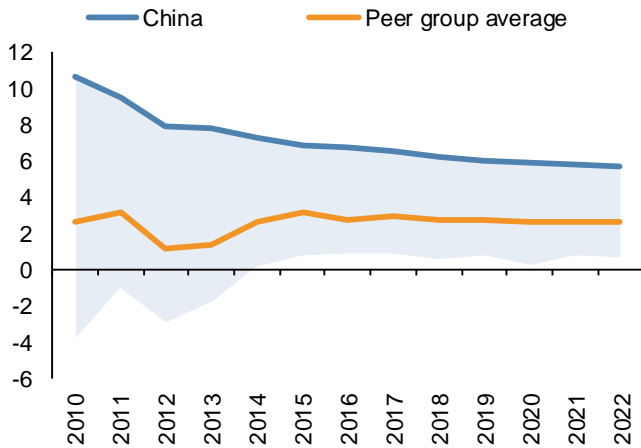
### II. Appendix: CVS and QS results

CVS		QS					
		<i>Maximum adjustment = 3 notches</i>					
Rating indicator	Category weight	+2 notch	+1 notch	0 notch	-1 notch	-2 notch	
<b>Domestic economic risk</b> 35%	Growth potential of the economy	Excellent outlook, strong growth potential	Strong outlook, good growth potential	Neutral	Weak outlook, growth potential under trend	Very weak outlook, growth potential under trend or negative	
	Economic growth Real GDP growth Real GDP volatility GDP per capita Inflation rate	Excellent	Good	Neutral	Poor	Inadequate	
	Labour & population Unemployment rate Population growth	Excellent	Good	Neutral	Poor	Inadequate	
	<b>Public finance risk</b> 30%	Fiscal performance	Exceptionally strong performance	Strong performance	Neutral	Weak performance	Problematic performance
		Debt sustainability	Exceptionally strong sustainability	Strong sustainability	Neutral	Weak sustainability	Not sustainable
		Market access and funding sources	Excellent access	Very good access	Neutral	Poor access	Very weak access
Interest payments		Excellent	Good	Neutral	Poor	Inadequate	
<b>External economic risk</b> 15%	Current-account vulnerabilities	Excellent	Good	Neutral	Poor	Inadequate	
	External debt sustainability	Excellent	Good	Neutral	Poor	Inadequate	
	Vulnerability to short-term shocks	Excellent resilience	Good resilience	Neutral	Vulnerable to shock	Strongly vulnerable to shocks	
	Total external debt	Excellent	Good	Neutral	Poor	Inadequate	
<b>Institutional and political risk</b> 10%	Perceived willingness to pay	Excellent	Good	Neutral	Poor	Inadequate	
	Recent events and policy decisions	Excellent	Good	Neutral	Poor	Inadequate	
	Geo-political risk	Excellent	Good	Neutral	Poor	Inadequate	
<b>Financial risk</b> 10%	Financial sector performance	Excellent	Good	Neutral	Poor	Inadequate	
	Financial sector oversight and governance	Excellent	Good	Neutral	Poor	Inadequate	
	Macro-financial vulnerabilities and fragility	Excellent	Good	Neutral	Poor	Inadequate	
<b>Indicative rating range</b>	a						
<b>QS adjustment</b>	A+	* Implied QS notch adjustment = (QS notch adjustment for domestic economic risk)*0.35 + (QS notch adjustment for public finance risk)*0.30 + (QS notch adjustment for external economic risk)*0.15 + (QS notch adjustment for institutional and political risk)*0.10 + (QS notch adjustment for financial stability risk)*0.10					
<b>Final rating</b>	<b>A+</b>						

Source: Scope Ratings AG

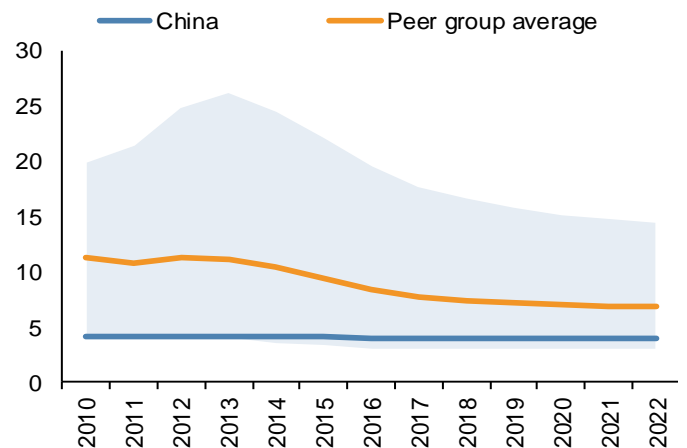
### III. Appendix: Peer comparison

**Figure 12: Real GDP growth**



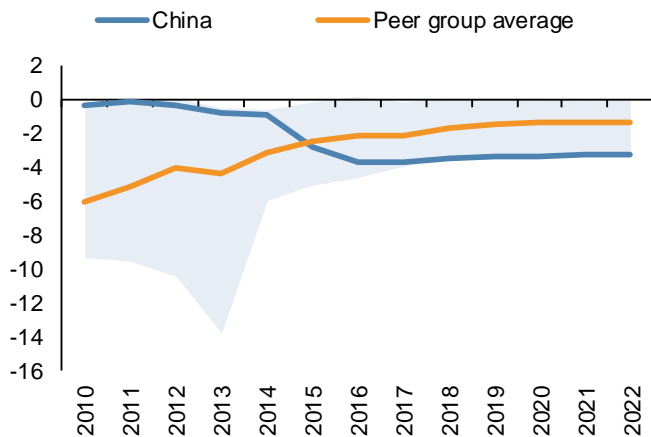
Source: IMF, Calculations Scope Ratings AG

**Figure 13: Unemployment rate, % of total labour force**



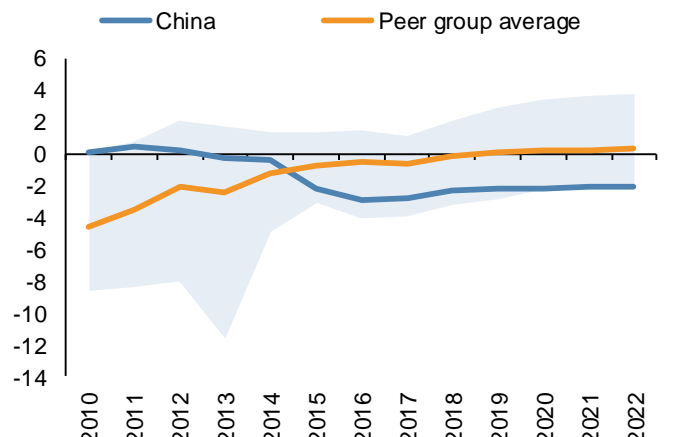
Source: IMF, Calculations Scope Ratings AG

**Figure 14: General government balance, % of GDP**



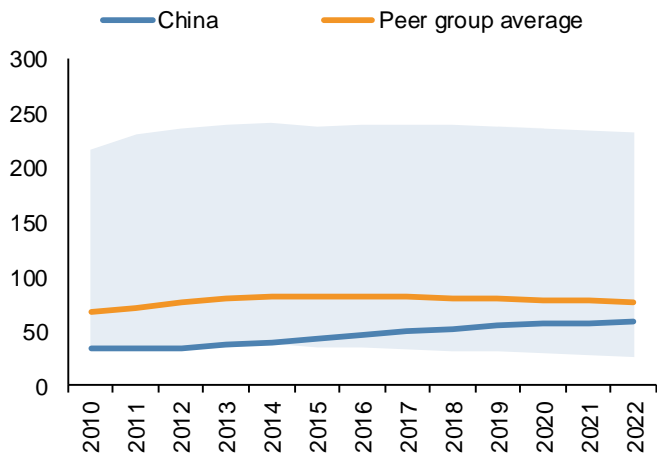
Source: IMF, Calculations Scope Ratings AG

**Figure 15: General government primary balance, % of GDP**



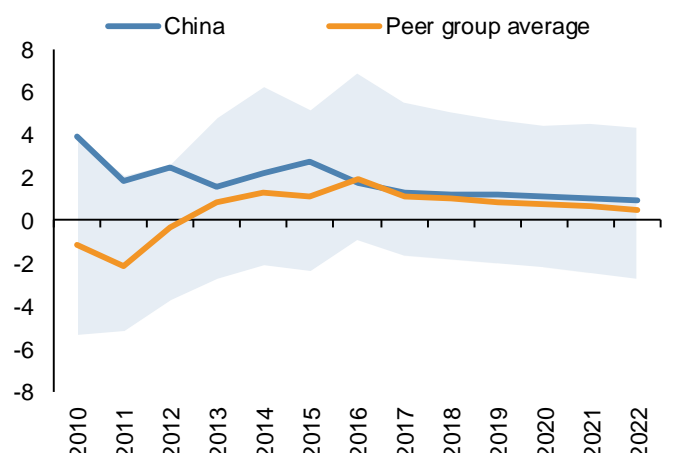
Source: IMF, Calculations Scope Ratings AG

**Figure 16: General government gross debt, % of GDP**



Source: IMF, Calculations Scope Ratings AG

**Figure 17: Current account balance, % of GDP**



Source: IMF, Calculations Scope Ratings AG

### IV. Appendix: Statistical tables

	2012	2013	2014	2015	2016	2017E	2018F
<b>Economic performance</b>							
Nominal GDP (Bil.CNY)	54,099	59,696	64,718	69,911	74,540	81,268	87,943
Population ('000s)	1,375,199	1,382,793	1,390,110	1,397,029	1,403,500	1,409,517	1,415,046
GDP-per-capita PPP (Int'l USD)	11,351	12,368	13,440	14,448	15,535	-	-
GDP per capita (CNY)	39,954	43,871	47,315	50,858	53,908	58,430	62,860
Real GDP growth, % change	7.9	7.8	7.3	6.9	6.7	6.7	6.4
GDP growth volatility (10-year rolling SD)	1.8	2.0	2.2	2.4	2.2	1.4	1.4
CPI, % change	2.6	2.6	2.0	1.4	2.0	2.4	2.3
Unemployment rate (%)	4.1	4.1	4.1	4.1	4.0	4.0	4.0
Investment (% of GDP)	47.2	47.3	46.8	44.7	44.1	44.0	43.4
Gross national savings (% of GDP)	49.7	48.8	49.0	47.5	45.8	45.2	44.6
<b>Public finances</b>							
Net lending/borrowing (% of GDP)	-0.3	-0.8	-0.9	-2.8	-3.7	-3.7	-3.4
Primary net lending/borrowing (% of GDP)	0.2	-0.3	-0.4	-2.2	-3.0	-2.7	-2.3
Revenue (% of GDP)	27.8	27.7	28.1	28.5	28.2	27.4	27.5
Expenditure (% of GDP)	28.1	28.5	29.0	31.3	32.0	31.1	30.9
Net interest payments (% of GDP)	0.5	0.5	0.6	0.6	0.8	1.0	1.1
Net interest payments (% of revenue)	1.8	1.8	2.0	2.0	2.7	3.6	4.1
Gross debt (% of GDP)	34.3	37.0	39.9	42.6	46.2	49.3	52.0
Net debt (% of GDP)	-	-	-	-	-	-	-
Gross debt (% of revenue)	123.5	133.5	142.3	149.3	163.8	179.9	189.4
<b>External vulnerability</b>							
Gross external debt (% of GDP)	-	-	15.1	11.5	11.5	-	-
Net external debt (% of GDP)	-	-	-	-	-	-	-
Current-account balance (% of GDP)	2.5	1.5	2.2	2.7	1.8	1.3	1.2
Trade balance [FOB] (% of GDP)	2.7	2.7	3.7	5.4	4.5	-	-
Net direct investment (% of GDP)	2.1	2.3	1.4	0.6	-0.4	-	-
Official forex reserves (EOP, Bil. USD)	-	-	-	3,330.4	3,010.5	-	-
REER, % change	6.1	6.4	2.1	10.6	-4.3	-	-
Nominal exchange rate (EOP, Yuan/USD)	6.3	6.1	6.1	6.5	6.9	-	-
<b>Financial stability</b>							
Non-performing loans (% of total loans)	1.0	1.0	1.2	1.7	-	-	-
Tier 1 ratio (%)	10.6	9.9	10.8	11.3	-	-	-
Private debt (% of GDP)	121.9	125.7	131.3	137.0	144.5	-	-
Domestic Credit-to-GDP gap (%)	13.3	19.0	21.6	27.2	24.6	-	-

Sources: IMF, China National Bureau of Statistics, People's Bank of China, Ministry of Finance of China, World Bank, BIS, OECD, United Nations, Scope Ratings AG

### V. Regulatory disclosures

This credit rating and/or rating outlook is issued by Scope Ratings AG.

Rating prepared by Dennis Shen, Lead Analyst

Person responsible for approval of the rating: Dr Stefan Bund, Chief Analytical Officer

The ratings/outlook were first assigned by Scope as a subscription rating in January 2003. The subscription ratings/outlooks were last updated on 05.05.2017.

The senior unsecured debt ratings as well as the short-term issuer ratings were assigned by Scope for the first time.

As a "sovereign rating" (as defined in EU CRA Regulation 1060/2009 "EU CRA Regulation"), the ratings on the People's Republic of China are subject to certain publication restrictions set out in Art 8a of the EU CRA Regulation, including publication in accordance with a pre-established calendar (see "Sovereign Ratings Calendar of 2017" published on 21.07.2017 on [www.scooperatings.com](http://www.scooperatings.com)). Under the EU CRA Regulation, deviations from the announced calendar are allowed only in limited circumstances and must be accompanied by a detailed explanation of the reasons for the deviation. In this case, the deviation was due to the recent revision of Scope's Sovereign Rating Methodology and the subsequent placement of ratings under review, in order to conclude the review and disclose ratings in a timely manner, as required by Article 10(1) of the CRA Regulation.

The main points discussed by the rating committee were: (1) China's economic outlook and growth potential, (2) fiscal performance and debt sustainability, (3) the banking and financial sector performance, (4) fiscal and monetary frameworks, (5) the risks from contingent liabilities, (6) recent and coming political developments, (7) peers considerations.

#### Solicitation, key sources and quality of information

The rating was initiated by Scope and was not requested by the rated entity or its agents. The rated entity and/or its agents did not participate in the ratings process. Scope had no access to accounts, management and/or other relevant internal documents for the rated entity or related third party.

The following material sources of information were used to prepare the credit rating: China National Bureau of Statistics, People's Bank of China, Ministry of Finance of China, IMF, BIS, United Nations and Haver Analytics.

Scope considers the quality of information available to Scope on the rated entity or instrument to be satisfactory. The information and data supporting Scope's ratings originate from sources Scope considers to be reliable and accurate. Scope does not, however, independently verify the reliability and accuracy of the information and data.

Prior to publication, the rated entity was given the opportunity to review the rating and/or outlook and the principal grounds upon which the credit rating and/or outlook is based. Following that review, the rating was not amended before being issued.



### **Conditions of use / exclusion of liability**

© 2017 Scope SE & Co. KGaA and all its subsidiaries including Scope Ratings AG, Scope Analysis, Scope Investor Services GmbH (collectively, Scope). All rights reserved. The information and data supporting Scope's ratings, rating reports, rating opinions and related research and credit opinions originate from sources Scope considers to be reliable and accurate. Scope cannot, however, independently verify the reliability and accuracy of the information and data. Scope's ratings, rating reports, rating opinions, or related research and credit opinions are provided "as is" without any representation or warranty of any kind. In no circumstance shall Scope or its directors, officers, employees and other representatives be liable to any party for any direct, indirect, incidental or otherwise damages, expenses of any kind, or losses arising from any use of Scope's ratings, rating reports, rating opinions, related research or credit opinions. Ratings and other related credit opinions issued by Scope are, and have to be viewed by any party, as opinions on relative credit risk and not as a statement of fact or recommendation to purchase, hold or sell securities. Past performance does not necessarily predict future results. Any report issued by Scope is not a prospectus or similar document related to a debt security or issuing entity. Scope issues credit ratings and related research and opinions with the understanding and expectation that parties using them will assess independently the suitability of each security for investment or transaction purposes. Scope's credit ratings address relative credit risk, they do not address other risks such as market, liquidity, legal, or volatility. The information and data included herein is protected by copyright and other laws. To reproduce, transmit, transfer, disseminate, translate, resell, or store for subsequent use for any such purpose the information and data contained herein, contact Scope Ratings AG at Lennéstraße 5, D-10785 Berlin.

Scope Ratings AG, Lennéstraße 5, 10785 Berlin, District Court for Berlin (Charlottenburg) HRB 161306, Executive Board: Torsten Hinrichs (CEO), Dr. Stefan Bund; Chair of the supervisory board: Dr. Martha Boeckenfeld.