AMRO Annual Consultation Report

China - 2017

The ASEAN+3 Macroeconomic Research Office (AMRO)

March 2018

Acknowledgments

1. This Annual Consultation Report on China has been prepared in accordance with the functions of AMRO to monitor, assess and report to its members on their macroeconomic status and financial soundness and to identify the relevant risks and vulnerabilities, and assist them, if requested, in the timely formulation of policy recommendation to mitigate such risks (Article 3(a) and (b) of AMRO Agreement).

2. This Report is drafted on the basis of Annual Consultation Visit of AMRO to China during August 21 to September 1, 2017 in Chengdu, Chongqing and Beijing (Article 5 (b) of AMRO Agreement). The mission team was headed by Dr. Chaipat Poonpatpibul, AMRO's Group Head and Lead Economist. The team members also included Dr. Li Wenlong (Senior Economist and Country Economist for China), Dr. Simon Liu Xinyi (Economist and Back-up Economist for China), Mr. Yoichi Kadogawa (Specialist and Back-up Economist for China), Mr. Anthony Tan (Senior Economist) and Mr. Tang Xinke (Researcher). AMRO Director Dr. Junhong Chang and Chief Economist Dr. Hoe Ee Khor also participated in key policy meetings with the authorities. This AMRO Annual Consultation Report on China was prepared by Dr. Chaipat Poonpatpibul, Dr. Li Wenlong, Dr. Simon Liu Xinyi, Mr. Yoichi Kadogawa, Mr. Anthony Tan and Mr. Tang Xinke; peer reviewed by Dr. Xianguo Huang (Economist) and approved by Dr. Hoe Ee Khor.

3. **The analysis in this Report is based on information available up to 26 January 2018.**

4. By making any designation of or reference to a particular territory or geographical area, or by using the term "member" or "country" in this Report, AMRO does not intend to make any judgments as to the legal or other status of any territory or area.

5. On behalf of AMRO, the Mission team wishes to thank the Chinese authorities for their comments on this Report, as well as their excellent meeting arrangements and hospitality during our visit.

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Executive Summary

*In the AMRO's **2016** Annual Consultation Report, AMRO staff pointed out that China's growth continued along a moderating trend amid on-going structural adjustments. Since then, while the overall external conditions have improved compared to 2015 and early 2016, external developments still need to be closely monitored as capital outflows could still recur down the road. Shadow banking activities have grown rapidly and could be a source of vulnerability, especially for small banks. Risks in the property sector need to be closely monitored and macro-prudential measures in top-tier cities should be further strengthened. While monetary policy is still accommodative to support growth, attention should be paid to safeguarding financial stability as vulnerabilities are building up in some areas, such as the property sector and weakly-regulated financial products. Given the relatively low government debt-to-GDP ratio, there is scope for fiscal policy to play a more proactive role in smoothing structural adjustment. Persistent industrial overcapacity, slow SOE reforms and high corporate debt are highly interconnected challenges that pose increasing risk to sustainable growth. Further policy commitment and coordination are critical to addressing overcapacity and rising debt.*

China's economy grew strongly in 2017, driven by expanding consumption, exports and services. GDP grew 6.9 percent, exceeding the official target and most forecasts. On the demand side, growth was driven increasingly by consumption and less by investment. Meanwhile, the contribution of net exports increased. On the supply side, growth drivers include expanding industrial production partly on the back of incentives from rising prices and higher profits, and a growing services sector**. AMRO projects that GDP growth is expected to moderate slightly to 6.6 percent in 2018,** with momentum sustained by further expansion in private consumption, services, as well as the booming e-economy. On the other hand, the downside risks include weaker private investment and exports.

Overall external conditions have improved compared to 2016, with surpluses in both the current account and the capital and financial account. The financial and capital account was in surplus in 2017 on the back of strong macroeconomic performance, the slowing pace of U.S. Fed rate hikes, and counter-cyclical management on cross-border capital flows via macro-prudential policies. On the other hand, the current account surplus moderated, mainly due to a narrowed goods surplus, reflecting a faster import growth than exports. Foreign reserves have edged up since February 2017 amid moderating capital outflows. RMB depreciation sentiments have dissipated and exchange rate flexibility has increased.

The fiscal stance is assessed to be expansionary with a greater emphasis on supporting structural adjustments, mainly reflecting higher spending on items related to the boosting of potential growth and strengthening social safety net. Fiscal revenue has grown robustly recently, on the back of rising corporate and personal incomes. Continued efforts to manage local government debt have resulted in declining local government debt-to-GDP ratio and less reliance on bank loans and shadow banking borrowing. Investments in Public-Private Partnership (PPP) projects have accelerated, and are mainly focused on transportation and municipal construction.

Monetary policy has focused on safeguarding macro-financial stability. AMRO staff is of the view that while monetary policy has remained neutral, monetary conditions have been

tightened to safeguard macro-financial stability, but measures have also been used to facilitate credit extension to targeted sectors in the real economy. CPI inflation has remained low while PPI inflation has moderated after a sharp rise in early 2017. Regulation in the financial sector have been strengthened significantly and the leverage in the financial sector has started to decline although risks have to be further mitigated. Total social financing (TSF) has continued to grow steadily but M2 growth has moderated further. The property market has cooled down in bigger cities amid tightening restrictions on property purchases as well as increasing efforts to improve the rental system.

Near-term risks to growth and domestic macroeconomic stability have diminished. Backed by a rebound in growth and corporate profitability, as well as stronger measures to rein in overcapacity, financial and corporate leverage, and property market speculation, downside risks to growth receded in 2017. The property speculations have declined while the high leverage in the corporate and financial sectors has peaked and started to moderate. However, high corporate debt continues to be a risk. With regard to local government debt, implicit guarantees and illicit borrowing remain a concern. Meanwhile, persistent efforts are needed in SOE reforms to yield desirable market-oriented outcomes. On the external side, risks related to capital outflows have diminished but sentiments may turn averse if the economy were to falter. Against the background of a high goods deficit with China, trade relation between the U.S. and China has remained tense and may lead to an imposition of protectionist measures on China's exports.

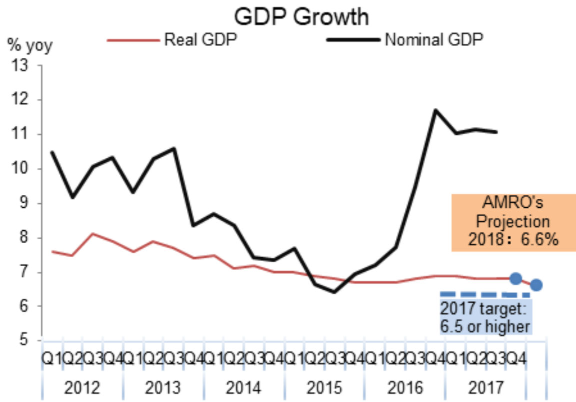
Mitigating macroeconomic and financial risks and pursuing reforms ought to be the two policy priorities going forward. For the last five years, China's economy has been rebalancing and slowing and appears to have soft-landed. With the shift towards consumption and services, growth and employment are assessed to be more sustainable than under the previous investment-driven growth model. Against this backdrop as well as the strengthened and preemptive financial regulations to address leverage, an economic hard landing is no longer considered to be a significant risk. We commend the authorities for their skillful macroeconomic management and the substantial reduction in macro-financial risks. However, while the short-term risks have diminished, structural challenges remain, which need to be addressed in order to maintain macro-financial stability and sustainable growth over the medium-to-long term. In particular, continued efforts are needed in the following areas. Fiscal policy should focus on strengthening structural adjustments and improving the efficiency of spending. Stricter and more fundamental measures are needed to control local government debt. Monetary policy should continue to focus on maintaining macro-financial stability. Exchange rate should be allowed to move more flexibly while capital controls should be liberalized at a pace consistent with external stability. Macro-prudential policies and financial regulation should continue to prioritize the need to curb excessive leverage and mitigate risks. To curb the high corporate debt, comprehensive efforts are warranted to manage vulnerable sectors and mitigate financial risks. Efforts to transform SOEs into independent entities should be continued. Lastly, improved coordinated measures are crucial to achieving desirable results of structural adjustments in different areas.

A. Recent Developments and Outlook

A.1 Macroeconomic Developments and Outlook

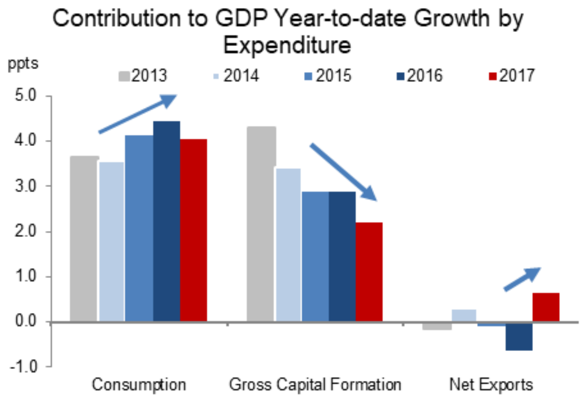
1. **China's economic growth in 2017 was stronger than expected, driven by expanding consumption, exports and services.** GDP grew by 6.9 percent in 2017, 0.2 percentage points higher than 2016 and also exceeding the official target for 2017 (6.5 percent or higher), as shown in Figure 1. On the demand side, growth was driven increasingly by consumption and less by investment. That said, rising infrastructure investments, partly in the form of public-private partnerships (PPPs), contributed significantly to growth. Meanwhile, the contribution of net exports also increased (Figure 2). On the supply side, growth drivers include expanding industrial production partly on the back of incentives from rising prices and improved profits, and a rapidly growing services sector, especially in transportation, wholesale and retail sales and information technology (IT).

Figure 1. GDP grew relatively fast in 2017 as compared to 2016



Source: NBS, AMRO

Figure 2. Growth was mainly driven more by consumption and less by investment



Source: NBS

2. **The authorities have recently drawn up a long-term development plan for China's economy.** The 19th National Congress of the Communist Party of China (CPC) highlighted that China will leverage on the fundamental role of consumption to promote economic growth and pursue high-quality growth. Meanwhile, the government has designed a development plan for the period from 2020 to the middle of the 21st century, aimed at developing China further into a "great modern socialist country" (Table 1).

Table 1. The Highlights of the 19th National Congress of the CPC

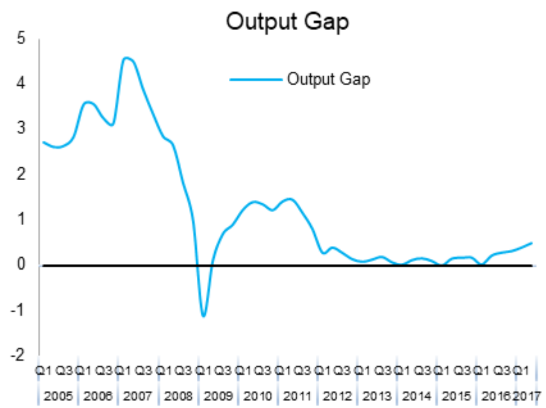
Development Plan	• (2020-2035): Achieving modernization on the whole • (2035-mid 21st century): Becoming a great modern socialist country
Economic Transition	• Fundamental role of consumption as a growth driver • Transitioning from rapid growth to high-quality development
Market Openness	• Deepening reforms on interest rates and exchange rates • Easing market access and protecting the rights and interests of foreign investors
Fiscal Policy	• Establishing a fiscal relationship between the central and local governments built upon clearly defined powers and responsibilities, appropriate financial resource allocation, and greater balance between regions • Expediting the creation of a modern public finance system
Financial Regulation	• Improving the regulation framework underpinned by monetary and macro-prudential policy

SOE Reforms	• Developing mixed-ownership economic entities • Turning Chinese enterprises into world-class, globally competitive firms
International Cooperation	• Actively promoting the Belt and Road Initiatives (BRI) • Participating in global governance and reforms

Source: Authorities, AMRO

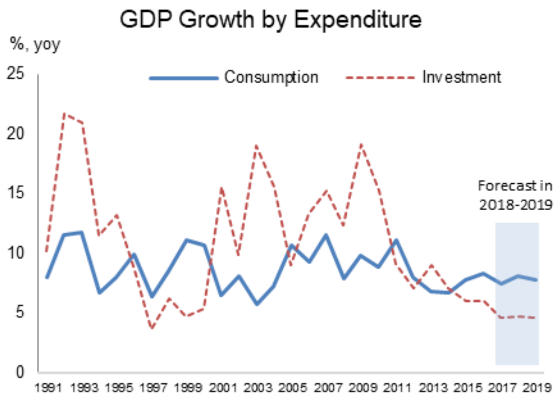
3. **Going forward, growth is expected to moderate slightly**. According to our analysis, the Chinese economy is in the middle of the business cycle and current real output is slightly higher than potential output (Figure 3). Growth in 2018 will likely be at around 6.6 percent, with momentum sustained by further expansion in private consumption, services as well as the booming e-economy. A hard landing is unlikely in the near term. On the other hand, the downside risks include a weakening in private investment (Figure 4) and exports, the latter deriving from the trade tension between China and the U.S.

Figure 3. The output gap turned positive



Source: NBS, AMRO

Figure 4. Consumption growth increases faster than investment and will continue



Source: NBS, AMRO

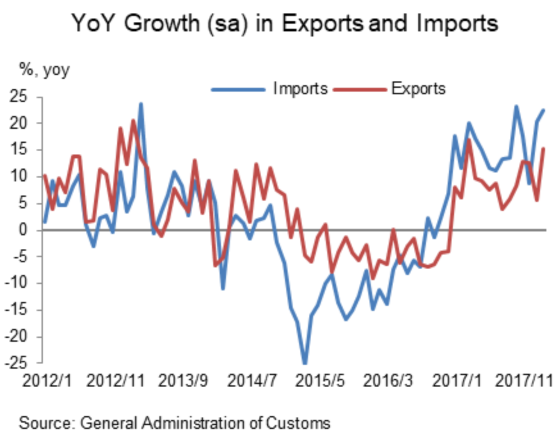
The Authorities' Views

4. **The authorities stress that China is at an important phase of economic development where the economy is transitioning from investment-led and high-speed growth towards consumption-led and high-quality development.** The authorities highlight several favorable factors supporting the transition that will lead to steady growth and high-quality development over the longer term. In their view, there is significant room for development in consumption upgrading, services, high-end manufacturing and urbanization. Meanwhile, they stress that employment conditions continue to improve, with economic restructuring creating more new jobs. For 2018, they highlight that GDP growth is expected to maintain in the rational range.

A.2 External Sector

5. **Overall, the external position has improved compared to 2016, with surpluses in both the current account and the capital and financial account.** The financial and capital account was in surplus in 2017 on the back of stronger macroeconomic performance, the slowing pace of U.S. Fed rate hikes, and counter-cyclical management on cross-border capital flows via macro-prudential policies. In comparison, the current account surplus moderated, mainly due to a narrowed goods surplus. This is because that exports have continued to expand against the backdrop of global trade recovery but imports have risen at a fast pace in tandem with growing domestic consumption (Figure 5). Meanwhile, services deficit remains large due to rising outbound tourism spending.

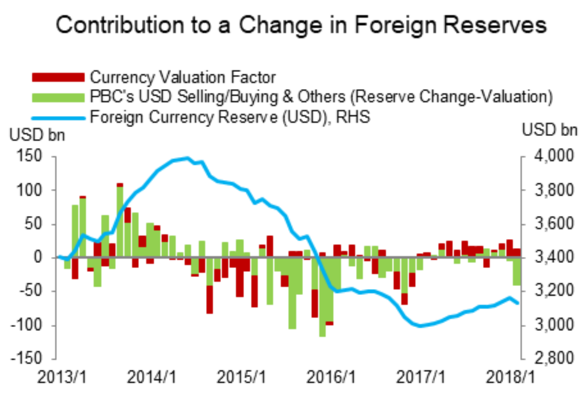
Figure 5. Import growth exceeded that in exports



Source: General Administration of Customs

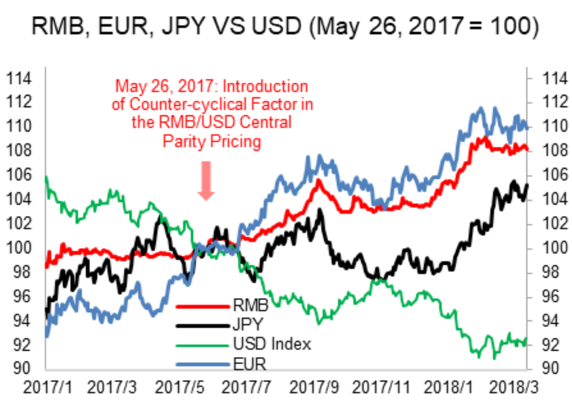
6. **Foreign reserves have edged up since February 2017 amid moderating capital outflows**. Foreign reserves declined by USD995 billion during July 2014-January 2017, reaching a trough of USD3.0 trillion. However, since February 2017, foreign reserves have been edging up and stood at USD3.14 trillion as of end 2017. This reflects receding pressures on capital outflows, thanks to stronger-than-expected economic performance. Also, valuation gains have also boosted the increase in reserves amid a weakening USD (Figure 6).

Figure 6. Foreign reserves have edged up



Source: PBC, AMRO

Figure 7. RMB flexibility has increased



Source: FED, PBC, ECB,BOJ, AMRO

7. **RMB depreciation sentiments have dissipated and exchange rate flexibility has also increased.** In May 2017, the authorities introduced a counter-cyclical adjustment factor in the RMB/USD central parity pricing mechanism, to provide better guidance to markets and to mitigate excessive volatility.[1] A major change after this introduction is that RMB movements

[1] The pricing model for the central parity of the RMB against the U.S. dollar includes three factors: counter-cyclical factor, the previous closing rate and changes in the currency basket. According the PBC, the counter-cyclical factor

are more in line with other major non-USD currencies (Figure 7) and the exchange rate flexibility has increased. The RMB strengthened against the U.S. dollar in June-August 2017 and January 2018 owing to stronger economic performance, the effectiveness of measures in reducing outflows, and the slower pace of Fed rate hikes. While the RMB indices have risen slightly, the volatility in the RMB/USD bilateral exchange rate has increased. The increasing exchange rate flexibility is part of continued reforms in China's exchange rate regime discussed in Selected Issue 1: Reforms in China's Exchange Rate Regime.

8. **China's growing economy and increasingly prominent role in international trade and investment have significant impacts on ASEAN through different channels**. With its high growth rates over the past 40 years, China has become the largest economy in Asia. The expansion of China's economic and trade activities has tremendous impacts on ASEAN. Moreover, China's changing economic structure and ongoing reforms have also impacted on ASEAN, through goods trade, services trade (mainly in tourism), investments (especially through the BRI) and financial markets. During China's ongoing rebalancing from an investment-driven toward consumption-led growth, commodities exporters in ASEAN will continue to face slowing demand from China. However, several ASEAN countries have also adjusted well to the changing demand there and started to gain from rising consumption goods exports to China. Regarding the financial market, market volatility in China will likely affect most emerging and developed countries in ASEAN through the sentiment channel (Please refer to Selected Issue 2: China's Increasing Economic Linkages with ASEAN and the Potential Spillover Effects).

A.3 Fiscal Policy

9. **Fiscal revenue has grown robustly recently, backed by rising corporate and personal incomes.** In 2017, revenues expanded faster than the previous four years, with revenue rising by 7.4 percent. Tax revenue accounted for 83.7 percent of total general public budget revenue and grew by 10.7 percent yoy. In particular, owing to higher PPI inflation, corporate incomes and profits have risen, leading to higher corporate income tax collections. A higher nominal wage supported an increase in taxes related to personal income and consumption (Figure 8).

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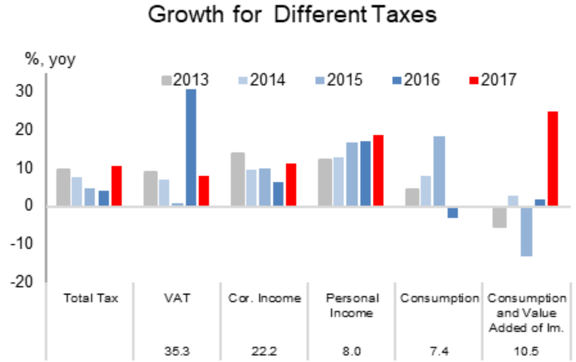
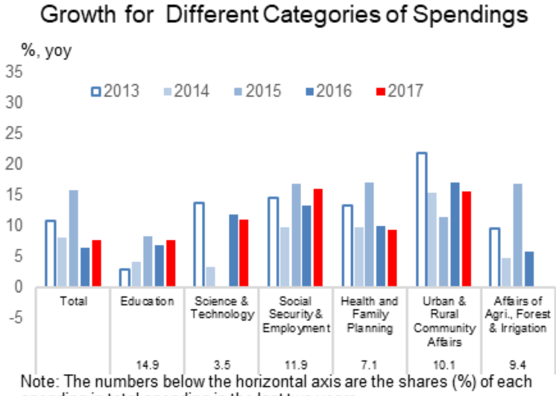
is calculated by removing the impact of the currency basket from the movement between the previous closing rates and the central parity. After doing so, the exchange rate movements mainly reflect market supply and demand. The counter-cyclical factor can be found by adjusting the counter-cyclical coefficient, which is set by the quoting banks based on changes in the economic fundamentals and the extent of pro-cyclicality in the foreign-exchange market.

Figure 8. Robust growth in fiscal revenue



Note: The numbers below the horizontal axis are the shares (%) of each tax in total tax in the last two years
Source: CMOF, AMRO

Figure 9. Fiscal stance continues to be expansionary

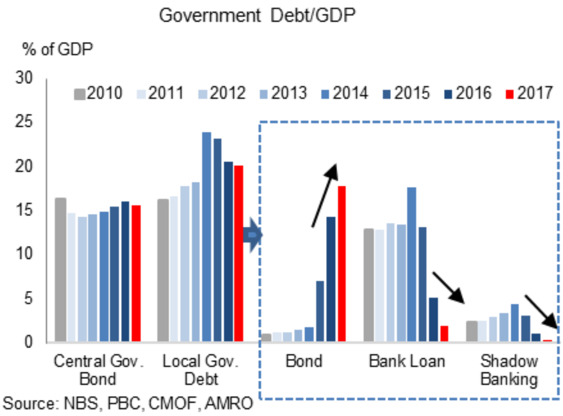


Note: The numbers below the horizontal axis are the shares (%) of each spending in total spending in the last two years
Source: CMOF, AMRO

10. **The fiscal stance is assessed to be expansionary with a greater emphasis on supporting structural adjustments.** General government expenditure grew by 7.7 percent in 2017, mainly reflecting higher spending in the items related to the boosting of potential growth and strengthening the social safety net, such as spending in science and technology, social security and employment, health and education (Figure 9). The authorities have also taken measures to reduce the tax burden and fees on the corporate sector including SMEs. According to the authorities, a new addition of more than RMB1 trillion in taxes and fees (1.2 percent of GDP) was reduced in 2017. The official fiscal deficit target is 3.0 percent of GDP in 2017 and is likely to be met.

11. **Continued efforts to manage local government debt have resulted in declining local government debt-to-GDP ratio and less reliance on bank loans and shadow banking borrowing.** Due to strengthened management of local government debt, the government debt-to-GDP ratio has continued to decline since 2014. According to staff calculation, the local government debt-to-GDP ratio declined to 19.9 percent of GDP by the end of 2017 from 23.9 percent in GDP in 2014. Moreover, the composition of local government debt has changed dramatically due to continued debt-for-bond swap progress, with lower yield bonds rapidly replacing higher interest rate bank loans and shadow banking borrowing (Figure 10).

Figure 10. The components of local debt have changed dramatically



Source: NBS, PBC, CMOF, AMRO

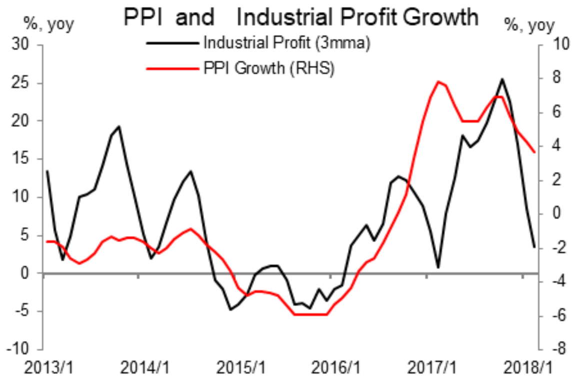
12. **Investments in Public-Private Partnership (PPP) projects have accelerated, and are mainly focused on transportation and municipal construction.** The authorities have actively promoted PPP projects across the country as a major measure to reduce the fiscal burden, improve government efficiency and support growth. As of October 2017, there were

14,059 PPP projects. The total investment value is RMB17.7 trillion, 118 percent higher than that in January 2016. Of this amount, 35 percent has been executed and the rest is in the process of identification, preparation or procurement. By sector, PPP projects are mainly concentrated in transportation and municipal construction, which account for 31 and 27 percent respectively, as of September 2017.

A.4 Inflation

13. **CPI inflation has remained low while PPI inflation has moderated after a sharp rise in early 2017.** CPI inflation has largely edged up since February 2017 but remains low on the back of subdued food prices. In 2017, CPI inflation averaged 1.6 percent, as compared to 2.0 percent a year ago. On the other hand, core CPI inflation continued to trend up, from 1.2 percent in January 2015 to 2.2 percent in December 2017. CPI inflation is likely to rise slightly in the near term should higher food prices and positive output gap persist. After peaking at 7.8 percent in February 2017, PPI inflation moderated to 4.9 percent in December 2017, partly owing to moderation in mining prices. Overall, PPI inflation remains high this year, reflecting a shortage of some commodities due to the continued reduction of overcapacity and the shutdown of some heavily polluting factories. The price surge may also have been caused partly by financial speculations. PPI inflation has contributed to improving industrial profits (Figure 11), especially in the upstream sector, encouraging the industrial sector to expand business and contribute more to GDP growth. PPI inflation is expected to moderate further in 2018, partly reflecting the base effect.

Figure 11. High PPI inflation has contributed to improving industrial profits



Source: NBS

A.5 Monetary Policy and Financial Regulation

14. **Monetary policy has focused on safeguarding macro-financial stability.** According to the People's Bank of China (PBC), it will continue to conduct a "sound and neutral" monetary policy and provide liquidity to the market in a flexible manner. AMRO staff is of the view that the overall monetary policy has shifted to a slightly tighter stance with a greater focus on safeguarding macro and financial stability, but measures have also been used to facilitate credit extension to targeted sectors in the real economy. In the face of declining base money growth due to smaller FX purchases, the PBC has managed liquidity via open market operations and lending facilities. The interest rates of lending facilities were also raised in early 2017. On 14 December 2017, the PBC raised interest rate by five bps for reverse repo and

medium-term lending facility (MLF) in response to the U.S. Fed's 25 bps rate hike.[2] On the other hand, to support the loans for inclusive financerelated to SME, agro-linked and other sectors,[3] the PBC cut the Required Reserve Ratio (RRR) for banks that meet certain requirements for lending to these sectors from January 2018 onwards.[4] On 29 December 2017, the PBC set up the "Contingent Reserve Allowance" to meet the temporary liquidity demand of commercial banks due to large cash injections in the run-up to the Chinese New Year.

15. **Policy efforts to enhance regulation in the financial sector have been strengthened significantly.** In Q1 2017, the assets of wealth management products (WMP) were included in the definition of broad credit in the Macro-Prudential Assessment (MPA).[5] Meanwhile, the China Banking Regulatory Commission (CBRC) has strengthened the enforcement of regulations to reduce regulatory arbitrage. In November 2017, the authorities established the Financial Stability and Development Committee under the State Council as a decision-making body to deliberate and coordinate major reforms, regulation and development programs for the financial sector. Meanwhile, the regulators announced measures to strengthen regulation for the asset management businesses of financial institutions.[6] Due to these policy measures, the leverage in the financial sector has started to decline but risks have to be further mitigated.

A.6 Financial and Property Markets

16. **Total social financing (TSF) has continued to grow steadily but M2 growth has moderated further.** TSF registered a growth rate of 12.0 percent in 2017. Growing bank loans were the main contributor while corporate bond financing expanded at a slower pace due to the higher interest rates.[7] M2 growth, which was in line with TSF growth, has decelerated since early 2017 (Figure 12) due to moderating off-balance sheet lending following the strengthened regulation as well as increasing fiscal savings partly due to increasing tax collection and government bond issuances. Meanwhile, the stricter mortgage loan policy has

[2] According to the PBC, this policy move aimed to help markets form reasonable expectations for interest rates and prevent financial institutions from adding excessive leverage and expanding broad credit supply. We view that this indicates a slight tightening bias and helped mitigate risks of RMB depreciation in an environment where a prospective U.S. tax cut may lead to some capital repatriation. On the other hand, the intention of the very small magnitude was to avoid a negative impact on the market.

[3] According to UN, inclusive finance strives to enhance access to financial services for both individuals and micro-, small and medium-sized enterprises.

[4] According to the PBC, if the proportion of the outstanding loans for inclusive finance (or new loans for inclusive finance) of commercial banks has reached 1.5 percent in the total outstanding balance of loans (or new loans) in the previous year, these banks' RRR will be cut by 0.5 percentage point. For those commercial banks whose outstanding loans for inclusive finance (or new loans for inclusive finance) has reached 10% in the total outstanding balance or (new loans) in the previous year, their RRR shall be cut by an additional 1 percentage point.

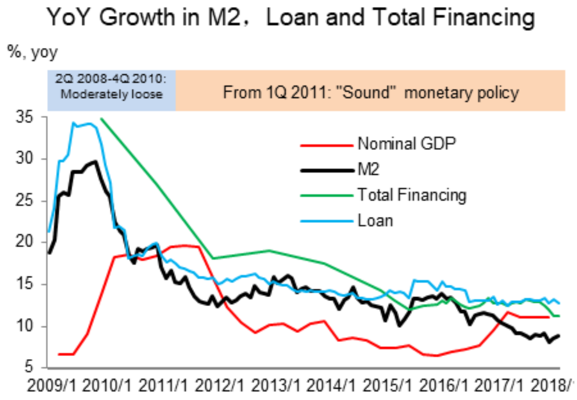
[5] According to the PBC, this helps prevent and control financial risks and enhance the soundness of the banking system.

[6] The purpose of the move is to harmonize supervisory standards, to implement fair market access and supervision, as well as to eliminate regulatory arbitrage.

[7] The drivers behind rising loans include the following reasons. Overall economic growth has expanded steadily; the stricter financial regulation has reduced the demand for non-standard financing, leading to increasing loan demand. The corporate sector issued less bonds amid higher bond yields.

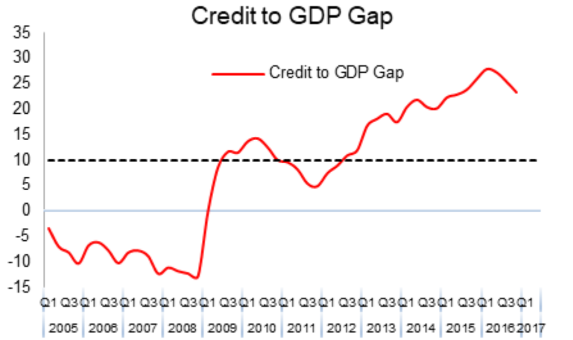
made it harder for households to borrow from banks to purchase properties. Overall, due to efforts to curb corporate and financial sector leverage as well as a sharp increase in nominal GDP, the credit-to-GDP gap has declined from its peak in 2016 (Figure 13).

Figure 12. Total social financing (TSF) has grown steadily while M2 growth has moderated



Source: PBC, AMRO

Figure 13. Credit-to-GDP gap has come down from the peak

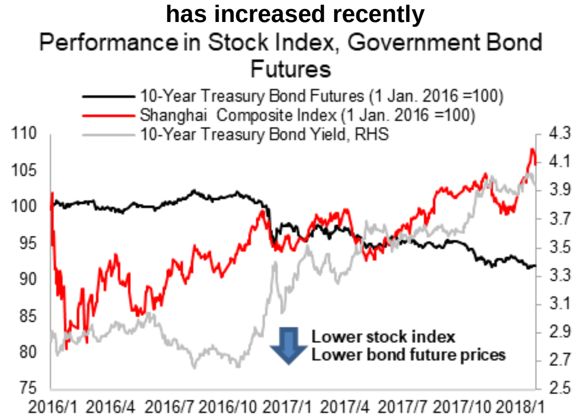


Note: The methodology AMRO uses for credit cycles follows closely the methodology in the paper by Mathias Drehmann, Claudio Borio and Kostas Tsatsaronis et, "Characterising the financial cycle: don't lose sight of the medium term!", BIS Working Paper No. 380, June 2012.
Source: NBS, BIS, AMRO

17. **Stock markets have been largely edging up since Q2 2017.** The improved macroeconomy led to stabilized market sentiments. On 21 June 2017, MSCI, a leading provider of global equity indexes, announced that beginning in June 2018, it would include China A shares in the MSCI Emerging Markets Index and the MSCI ACWI Index, which has increased domestic and foreign investors' interests to buy Chinese stock, especially blue-chips. The reforms and commitments announced at and after the 19th National Congress of the CPC have also strengthened the prospects of China's economy, bolstering the sentiments in the stock markets to some extent. As such, the stock index gradually risen during Q2 2017-end 2017. The IT stocks have outperformed the overall markets, especially those related to the internet, big data and artificial intelligence (AI).

18. **The stress in the onshore bond market has increased partly due to tightening regulation and liquidity conditions.** Compared to the stock market, the bond market has been in a correction since end 2016. The tightening regulation to curb leverage in the financial market has led to liquidity constraints and dampened the market sentiments to some extent. Improving macro-economy with edging up inflation has raised expectation of rising interest rates. In addition, the U.S. Fed's rate hikes have impacted China's bond market to a certain degree through the increasing bond yield correlation between the two countries. Since October 2016, there have been bouts of

Figure 14. The stress in the onshore bond market has increased recently

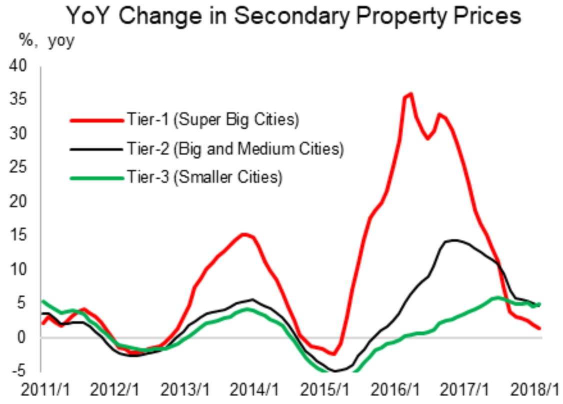


Source: Financial Futures Exchange, Shanghai Stock Exchange, AMRO bond market corrections especially during October-December 2016 and the period of September-November 2017 (Figure 14).

19. **NPL ratio has remained stable while the special mentioned loan (SML) ratio has declined compared to Q3 2016.** After the official NPL ratio edged up to 1.75 percent as of end Q1 2016, this ratio has stayed at that level up to Q3 2017 (large commercial banks even saw declined NPL ratio), partly due to improved macro-economy and profits. Meanwhile, SML ratio declined to 3.6 percent as of end Q3 2017 compared to 4.1 percent a year ago. The stabilizing NPL ratio and declining SML ratio may indicate easing pressures on the banking system as a whole. However, rural commercial banks continued to witness rising NPL ratio partly due to worsening probability in some borrowers and the slow pace of disposing NPLs.

20. **The property market has continued to cool down in bigger cities amid strengthening restrictions on property purchases as well as increasing efforts to improve the rental system**. Since the second half of 2016, the authorities have taken macro-prudential measures to limit property speculations and have expanded and improved the rental market, in order to reduce demand pressure on the property market. These measures have led to slowing price increase or even price decline in some Tier-1 and Tier-2 cities (Figure 15), and the property stock has moderated to some extent. On the other hand, property prices in some lower-tier cities have remained relatively flat.

Figure 15. The property market has continued to cool down in bigger cities



Source: Wind

The Authorities' Views

21. **The authorities highlighted the improving developments across the various sectors of the economy.** On the external sector, the authorities assessed that both imports and exports grew rapidly and the composition of export has continued to improve with more high-end products. At the same time, cross-border capital flows have become more balanced. The demand and supply of foreign exchange has been largely balanced. In addition , the flexibility of the RMB/USD exchange rate has increased and the two-way movements were more visible. Exchange rate expectations have become more stable. On price movements, the authorities stressed that consumer prices increased only modestly while producer prices for industrial products have moderated after a sharp increase. In the banking sector, asset quality and profitability have been stable, while banking sector resilience against potential risks has strengthened. With regard to the property market, the authorities were of the view that the measures implemented so far have been effective. They are confident that these measures have not impacted negatively on the economy and that further measures will be taken to stabilize the property market.

B. Risks, Vulnerabilities and Challenges

22. **Near-term risks to growth and domestic macroeconomic stability have diminished.** Table 2 below demonstrates the development of risks in China during 2016-2018. In the 2016 China Annual Consultation Report, the major risks then included uncertainties on investment and external demand, increasing leverage and speculation in top-tier property markets, persistent overcapacity, slowing state-owned enterprise (SOE) reforms and rising corporate debt. Backed by a rebound in growth and profitability, as well as strengthening policy measures to rein in overcapacity, financial and corporate leverage and property market speculation, downside risks to growth have receded in 2017 and overcapacity reduction has proceeded according to the government's plan.[8] The price growth of property prices in first- and second-tier cities has declined while the high leverage in the corporate and financial sectors has started to plateau.

Table 2. Development of Risks in China

Risks		Likelihood			Potential Impact in 2018
		2016	2017	2018	
Domestic	Economic hard landing				High
	High property prices				Medium
	Continued overcapacity				Small
	Slowing SOE reforms				Medium
	High corporate debt				Medium
	Rising local government debt				Small
	Risks in the financial markets				Medium
External	Trade tension				Small to medium
	Capital outflow pressures				Medium
	Geopolitical risks				Small

Low Risk	Low to Medium Risk	Medium Risk	High Risk

Source: AMRO

23. **The major risks that remain to be tackled mostly pertain to corporate and government debt, financial leverage and SOE reform.** High corporate debt continues to be a significant risk, even though its growth has moderated and risk has receded somewhat. With regards to local government debt, the authorities have made continued efforts to curb debt growth but risks related to PPP projects, implicit guarantees and illicit borrowing remain. Meanwhile, it needs to take further efforts on SOE reforms to achieve desirable market-oriented outcomes. Financial leverage, which has started to decline due to strengthened regulation, still needs to be kept in check. On the external side, capital outflow pressures have

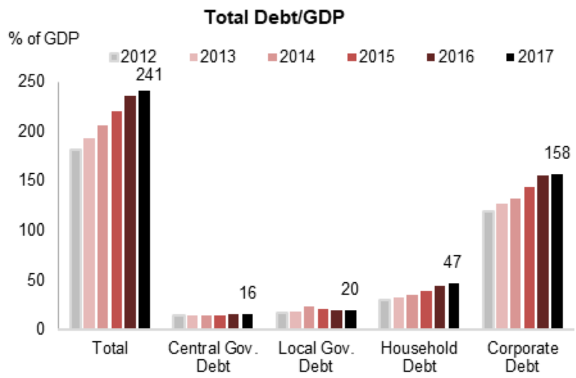
[8] According to NBS, the capacity utilization rose to 77% in 2017, the highest in the past five years.

moderated but these risks could heighten if the U.S. and other advanced economies' monetary policy normalization proceeds at a faster-than-expected pace, or if growth in China were to falter. In addition, geopolitical risks are tail risks, which will likely to stay.

B.1 Rising Debt

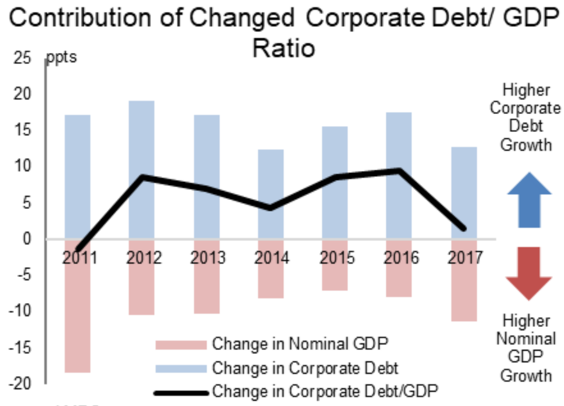
24. **Although total debt is still rising, its growth has moderated in 2017.** Partly due to increasing efforts to control debt, growth in overall debt in 2017 (including government debt, household debt and non-financial corporate debt) has moderated as compared to 2016 (Figure 16). According to AMRO's calculations, total debt is estimated to reach 241.0 percent of GDP as of end-2017. Although it is 4 percentage points higher than in 2016, the increase is the lowest over the last six years. Corporate debt, accounting for two-thirds of total debt, has also risen at a much slower pace. It grew by 2 percent of GDP in 2017, much lower than the average of 8.0 percent per annum between 2012 and 2016.

Figure 16. Overall debt growth has moderated



Source: NBS, PBC, CMOF, AMRO

Figure 17. Slowdown of corporate debt/ GDP due partly to higher nominal GDP growth



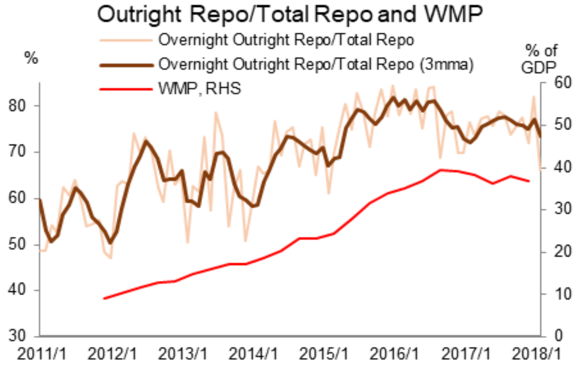
Source: AMRO

25. **High corporate debt in vulnerable sectors and rising household debt remain a concern**. The corporate debt-to-GDP ratio remains higher than in any other major countries globally and significant reforms are warranted to reverse this trend. According to AMRO's calculations, the slowdown of the corporate debt-to GDP ratio has been due partly to higher nominal GDP growth (Figure 17) on the back of a sharp rise in PPI in 2017. If PPI growth moderates in 2018, slower nominal GDP growth may lead to an increase in the corporate debt-to-GDP ratio. High leverage and a heavy debt burden continue to put pressure on certain corporates such as state-owned enterprises (SOEs) in steel, mining, utility, transport, and manufacturing with eroding profitability and competitiveness (See Selected Issue 3: High Corporate Debt in China: Macro and Sectoral Risk Assessments). After the removal of implicit guarantee expectations of corporate debenture bonds, the market's risk awareness has strengthened, though there is still room for improvement in credit risk management. Another concern is that among various kinds of debt, household debt has registered the highest growth, reflecting fast-rising household borrowings primarily to purchase property. Following this rapid growth in household debt, the household debt-to-GDP ratio is estimated to 47.3 percent by the end of 2017, up from 27.2 percent in 2010.

B.2 Financial Leverage

26. **The deleveraging process in the financial sector has progressed but risks associated with the complexity and opacity of certain financial products remain.** In the 2016 country surveillance report, we highlighted an increase in financial market risks following a rise in NPL ratios, more prevalent shadow banking activities and rising bond default pressure. Over the past year, partly owing to a rebound in PPI and profits, the NPL ratio has stabilized. The authorities have also taken measures to curb the rise in leverage in the financial sector (Figure 18). However, given the complexity and interconnectedness of these financial products, the risks related to the underlying assets have not yet been fully identified, which could pose contagion risks across markets. Inconsistent regulatory rules and standards for the asset management industry among different regulators also result in regulatory arbitrage. In addition, the deleveraging process, while necessary, has partly led to liquidity constraints in the bond market and subsequently to bouts of bond market corrections. Market volatility could therefore heighten, highlighting the need to deal with potential unintended consequences of related policies.

Figure 18. Deleveraging in the financial sector has progressed

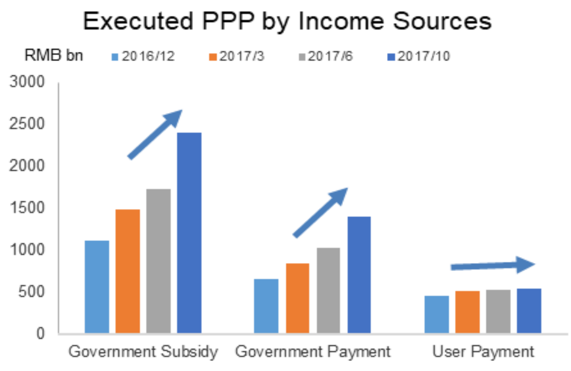


Source: National Interbank Funding Center, AMRO

B.3 Potential Risks Associated with PPP Projects

27. **Although PPP projects were set up to reduce the local government burden and curb the rise in local government debt, illicit operations are likely to contribute to fiscal pressures**. PPP projects have become a priority for many local governments and are gaining popularity, especially over the last three years. To limit the fiscal burden, local governments' investment in PPP projects is limited to no more than 10 percent of local government's budget. However, in order to promote PPP projects, some local governments have broken this ceiling by using government funds or other forms of fiscal funding, which increases the fiscal burden and crowds out other fiscal spending. Furthermore, to attract non-government funding, local governments provide guarantees over the income or return from these PPP projects, which could potentially increase the fiscal burden should these guarantees be called. Figure 19 shows that 85 percent of outstanding executed PPP projects

Figure 19. PPP projects rely mainly on government as their income source



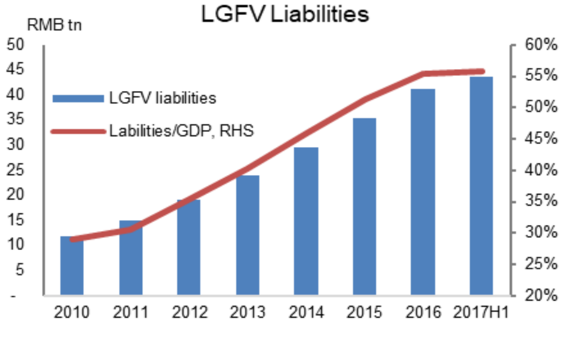
Source: CMOF, AMRO

rely on government subsidies or payments as their income source.[9] In addition, some local governments are focusing more on establishing new PPP projects rather than ensuring that the ongoing PPP projects are been operating well. Moreover, in order to support certain ineligible projects, such as the construction of commercial properties, some local governments have classified them as PPP projects with the aim of obtaining more government support. If such illicit PPP operations cannot be prevented, there may be greater potential pressure on local governments finance in the medium term. The questionable viability of these illicit operations and projects could lead to PPP-related defaults or even bankruptcies, which could be a threat to economic and financial stability at the local levels.

B.4 The Challenges of LGFVs

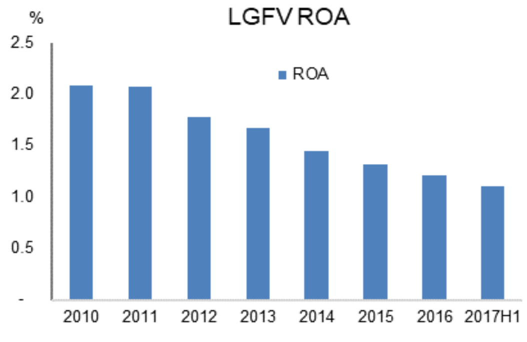
28. **Local Government Financing Vehicles (LGFVs) continue to pose a potential fiscal burden and it takes long time to transit towards market-oriented entities.** In October 2014, the State Council released its "Document 43" forbidding LGFVs from any further borrowings for the government. LGFV debt would also be excluded from government debt from 2015 onwards. In addition, LGFVs would be required to transformed into normal SOEs or PPP projects, or else be liquidated. Even so, LGFV debt has continued to rise rapidly since 2015 as LGFVs have had to incur further borrowings to complete unfinished projects and municipal construction. According to data collected from Wind, total LGFV liabilities was RMB44 trillion (or 55 percent of GDP) as of end H1 2017 (Figure 20).[10] Meanwhile, progress is slow with respect to the transformation of LGFVs into market-oriented entities and the profitability and debt payment capacity of some LGFVs have deteriorated. According to AMRO staff's calculation, LGFVs' return of asset (ROA) dropped to 1.1 percent in H1 2017 from 2.1 percent in 2010 (Figure 21). Inefficient and troubled LGFVs pose a fiscal burden given that local governments are the largest shareholders of LGFVs and provide large amounts of financing or subsidies to the LGFVs.

Figure 20: LGFV debt has continued to rise rapidly



Source: AMRO,Wind

Figure 21: LGFV profitability deteriorated



Source: AMRO,Wind

[9] There are three income sources for PPP projects: 1) "Government subsidy," which refers to government subsidies; 2) "Government payment," which refers to payments from the government for the services provided by the PPP projects; and 3) "User payment," which refers to payment by users or the general public for the PPP services.

[10] This calculation is based on 2008 LGFV liabilities data rather than debt data. The liabilities data is usually bigger and more available than debt data. IMF estimates that total LGFV borrowing was around 41 percent of GDP in 2015. Deutsche Bank estimated that LFGV debt was around 42 percent of GDP as of end H1 2017.

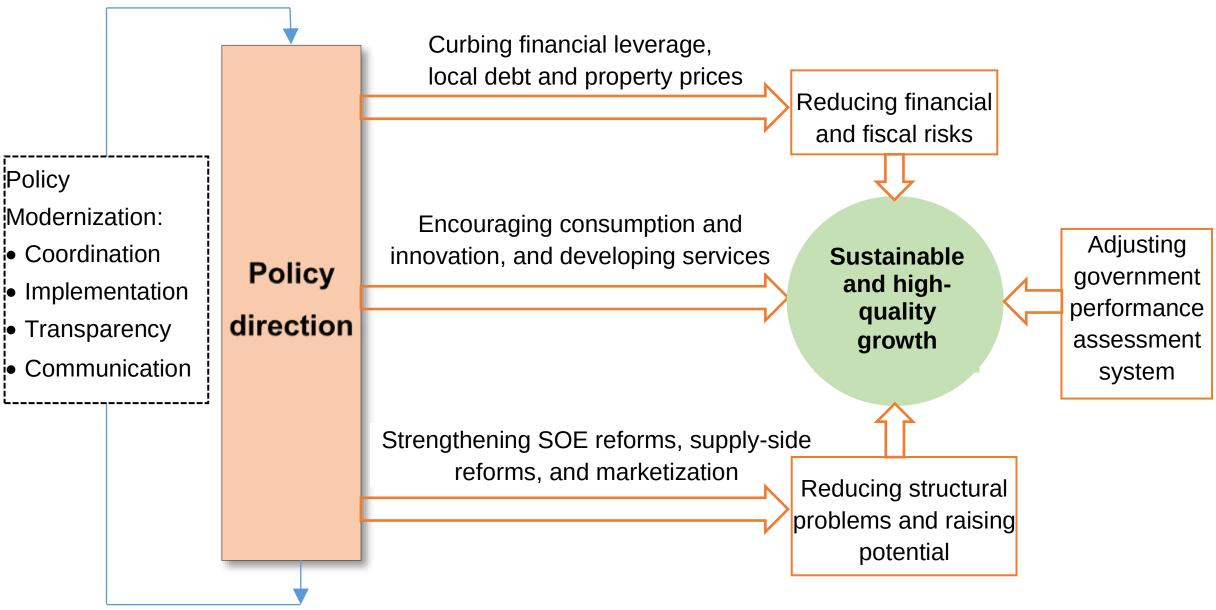
The authorities' Views

29. The authorities are aware of the risks and challenges facing China and they highlight that there is still much room for improvement in terms of structural adjustment and reform. The recent improvement in corporate performance is mainly due to upstream and midstream industries, such as the coal, steel, and chemical industries. However, bottlenecks in some of the weaker industries have yet to be addressed and the aggregate leverage remains elevated. Enterprises, especially SOEs, face bigger debt servicing pressures due to high leverage and lower operational efficiency. The task of guarding against financial risks and deleveraging has progressed but it is still arduous, especially due to the complexity of financial products. On external risks, the authorities acknowledge that China still faces a highly complicated and unpredictable international environment and pressures. They are vigilant about likely changes in monetary policies in the U.S. and other advanced economies, which may have an impact on the global economy and on capital flows. Overall, global trade and investment are not seen to be on a stable growth path as yet while geopolitical risks and uncertainties could also increase.

C. Policy Discussion

30. **Mitigating macroeconomic and financial risks and pursuing reforms ought to be the two major priorities going forward.** For the last five years, China's economy has been rebalancing and slowing, giving rise to widespread concerns of a hard landing which would have major spillovers to the global economy. However, recently the economy appears to stabilize, reflecting significant progress in structural adjustments toward more consumption-led growth. With the expansion in consumption and services, growth and employment are assessed to be more sustainable than the previous investment-driven growth model. Against this backdrop as well as the strengthened and preemptive financial regulation to address leverage, a hard landing risk is no longer a significant risk in the near term. We commend the authorities for their skillful macroeconomic management and structural adjustments of the economy. However, despite the reduction in near-term risks, structural challenges remain and they could pose a risk to sustainable growth and macro-financial stability if unaddressed. In particular, policymakers should continue to prioritize risk mitigation stemming from the investment-led growth of the past, such as high corporate leverage and low efficiency. Further efforts are needed to contain the rise in local government debt, encourage financial deleveraging and curb high property prices. Reducing these risks will help increase China's economic resilience against both domestic and external shocks. Besides guarding against these risks, the pursuit of further market-oriented reforms will significantly increase efficiency in SOEs. It is also important that policymakers modernize the macro-policy framework, such as by reforming the monetary policy framework and enhancing transparency and communication of policies. Also, the performance indicators for the economy should be adjusted to support the new focus on high-quality growth and the environment (Figure 22).

Figure 22. Policy Framework to Mitigate Macro and Financial Risks and Pursue Reforms

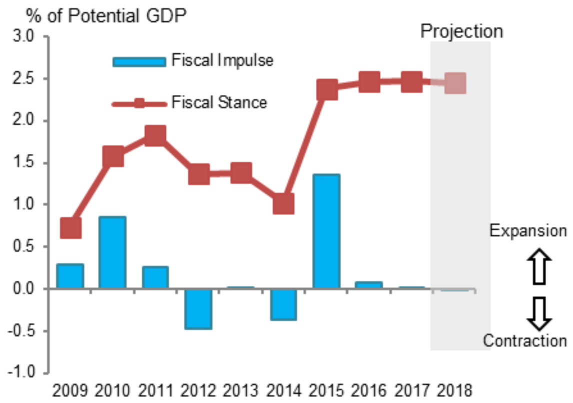


Source: AMRO

C.1 Fiscal Policy and Local Government Debt

31. **Fiscal policy should focus on supporting structural adjustments and improving efficiency of spending.** According to the authorities, a "proactive" fiscal policy stance has been employed since 2008 and they have highlighted that it would be "more proactive and efficient" in 2017. As a result, the fiscal deficit rose to 2.9 percent in 2016-2017. Given the current fiscal deficit and the potential pressure on social spending due to aging population in the future, the authorities can consider a cap on the fiscal deficit-to-GDP (Figure 23), which will build buffers against increasing fiscal spending in the future. Regarding current fiscal spending, it should be further prioritized to support the rebalancing towards a consumption-led growth. In particular, establishing comprehensive social safety net is key, as it will help reduce high precautionary savings rate and support consumption. Another priority is to support SOE reforms, including the transfer of the social functions of SOEs to the government and support the impacted workers and facilitate their reemployment. So far, the work of reducing taxes and fees has made significant progress while further efforts are needed to reduce the corporate tax burden to increase international competitiveness. It is also crucial that the authorities remain committed to improving spending efficiency and fiscal investment returns, especially related to PPP projects. For example, a process to scrutinize approvals of costly but underutilized infrastructure projects could be further strengthened.

Figure 23. Fiscal stance and fiscal impulse should be less expansionary



Note: Potential GDP is calculated by using HP filter (annual data, λ=6.25).
Source: AMRO staff calculation

32. **Stricter and more fundamental measures are needed to control local government debt.** The authorities' efforts to curb local government debt since 2014 have helped stabilize the local government debt-to-GDP ratio. However, officially, local government debt only includes the debt to be repaid by the government and excludes government-guaranteed debt and debt that is entitled to certain government relief. More efforts are needed to control the growth of such contingent liabilities to ensure that the government's debt burden does not balloon should they materialize. Meanwhile, continued efforts are needed to prevent illicit borrowing and strengthen PPP regulation. A reasonable performance indicator for the local government should be established, taking into account the need to maintain a balance between curbing debt growth while supporting GDP growth. Fundamentally, local government debt has been growing rapidly because of their unbalanced fiscal revenue and spending responsibilities, whereby local governments account for 86 percent of total government spending but only 45 percent of total government revenue. The two options, shifting spending responsibilities from local governments to the central government or shifting revenue from the

central government to local governments, need to be comprehensively assessed so that appropriate measures can be introduced to reduce this imbalance.

The Authorities' Views

33. **The authorities assess that the government debt risk is under control but highlight further measures to contain debt growth**. According to the authorities, the establishment of sound and standardized debt financing mechanisms across all levels of government to mitigate financial risks, have achieved remarkable results since 2015. At present, local governments can only borrow by issuing local government bonds within the ceiling approved by the central government. As of end-2017, total government debt was 36.2 percent of GDP, lower than that of major advanced and emerging market economies. The overall risk is therefore considered to be well-contained. Going forward, the authorities pledge to promote the transformation of LGFVs into market-oriented SOEs and allow market-based financing. The authorities are well aware of the need to balance the fiscal relationship between the central government and local governments as well as the need to establish a modern fiscal system.

C.2 Monetary Policy and Financial Regulation

34. **Monetary policy should continue to focus on maintaining macroeconomic and financial stability.** The strong GDP growth in 2017 has turned the output gap positive and inflation is gradually edging up, albeit at a low level. While growth is expected to moderate somewhat this year, it will remain above potential and the output gap will remain positive. Given the strong growth outlook and low inflation in the near term, monetary policy should prioritize macroeconomic and financial stability in order to further curb the excess leverage and risks in the financial sector. Increased flexibility in liquidity management continues to be important to ensure that the financial markets function smoothly. In addition, if core inflation were to rise significantly, then a tighter monetary policy stance should be considered.

35. **Exchange rate should be allowed to move more flexible and further measures on capital account liberalization should be consistent with external stability.** The counter-cyclical adjustment factor introduced in 2017 has helped the RMB exchange rate reflect economic fundamentals better and has increased its flexibility. Capital outflow pressures have receded and the RMB/USD rate has become more stable. Notwithstanding, the authorities should remain vigilant about the potential impact of U.S. Fed's rate hikes, which may be faster than expected in view of the recent U.S. tax reduction. As the RMB has become an international reserve currency, further efforts to strengthen policy communication and transparency are encouraged.

36. **Macro-prudential policies and financial regulation should continue to prioritize the need to curb excessive leverage and mitigate risks.** The inclusion of off-balance sheet activities in the MPA framework by the PBC early this year as well as enhanced financial regulation by regulators are welcome moves to curb financial leverage. Meanwhile, rising

interest rates have increased interbank financing costs and curbed off-balance sheet activities. Although leverage in the financial system has moderated recently due to the stepped-up policy efforts, there is room for further improvement. In particular, the transparency of shadow banking and off-balance sheet activities should be enhanced given the complicated and close inter-connection between different financial institutions and the complexity of financial products. In this regard, further regulatory coordination and standardization of overall financial areas and products (including internet financing) should be implemented to uncover underlying, cross-sector and systematic risks. In addition, when pursuing further deleveraging, the effects of tightened liquidity on financial market activities need to be closely monitored.

The Authorities' Views

37. **Maintaining financial stability is the authorities' policy priority.** The PBC pledged to strengthen financial regulatory coordination and take concerted measures to safeguard financial stability and alleviate systemic financial risks. The authorities stressed that further improvements to the two pillars of macroeconomic adjustment, including monetary and macro-prudential measures, will be made. From 2018, interbank certificates of deposit, a form of interbank liabilities, are included in the MPA. As for monetary policy, the PBC highlighted that they will continue with a "sound and neutral" monetary policy to create neutral and appropriate monetary and financial environments needed for supply-side structural reforms and high-quality growth. The authorities reiterated that the reduction in the target RRR from January 2018 does not change the "sound and neutral" monetary policy stance. They explained that this policy move is an improvement and replacement of the existing targeted RRR arrangement. Meanwhile, coordination of monetary policy with other policies will continue to be strengthened. As well, the authorities will continue to pursue marketization reforms in the interest rate and exchange rate.

C.3 Structural Reforms and Control of Corporate Debt

38. **Further efforts are needed to transform SOEs into independent market entities**. SOE reform is a priority in China's structural adjustment agenda, without which structural adjustments cannot succeed. SOE reforms would address the issue of high corporate debt and overcapacity substantially as SOE debt accounts for more than half of total corporate debt and SOE output accounts for more than half of the total output of steel, coal mining and other overcapacity sectors. Further efforts are needed to win the support of the private sector towards mixed-ownership reforms. These will necessarily include implementing measures to protect the rights of private shareholders and encouraging them to actively monitor and participate in the decision-making process. As mixed-ownership reforms involve transferring the state's share to the private sector, measures to prevent underpricing of the state's shares during the process shall be warranted. Meanwhile, the work of transforming SOEs into globally competitive firms should focus on enhancing their efficiency rather than on allocating more resources on a non-market basis in a bid to make them into monopolies. More monopolistic

SOEs may dampen the development of the private sector and result in a greater deterioration in management and operational efficiency.

39. **Coordinated measures are crucial for SOE reforms.** In driving the SOEs towards a more market-oriented operating environment, their social functions need to be removed as soon as possible by establishing fully-covered and centralized national social safety net for all employees. Meanwhile, sufficient fiscal funding should be allocated to support SOE reforms. In addition, more efforts are needed to support the transition of LGFVs, which shall be treated as SOEs. As these entities are less market-oriented and therefore face vulnerabilities in terms of high debt and low profitability, targeted and concrete measures should be taken to expedite their transition toward becoming market-orientated entities.

40. **To curb the high corporate debt, comprehensive efforts are warranted to manage vulnerable sectors and mitigate financial risks**. Curbing SOE debt is crucial and reforms to enhance their efficiency are important. Successful crackdowns on "zombie" enterprises and further reductions in overcapacity will help improve profitability and market-driven investment returns, and in turn, reduce the bad debt. Meanwhile, macro-prudential measures in the real estate sector should be maintained to rein in growing debt. In the utilities, transport, and construction sectors, PPP projects could be promoted as an alternative source of financing. Strengthening the buffers of financial institutions with high exposures to the vulnerable sectors can help mitigate risks to financial stability. Moreover, corporate and financial sector data should be improved to facilitate more comprehensive risk assessment and monitoring. Enhanced coordination among relevant policymakers is crucial for corporate debt reduction and risk mitigation.

The Authorities' Views

41. **The authorities highlight that mixed-ownership reforms are progressing and that they support SOEs to become stronger.** The authorities point out that SOE reforms have made further progress, whereby 69 percent of central SOEs and 47 percent of local SOEs have implemented mixed-ownership reforms respectively.[11] This has led to an improvement in the corporate governance structure and enhanced operational efficiency. However, the authorities admit that the unreasonable structure of the state-owned economy remains prominent. They pledged to take steps to deepen SOE reforms further, develop the mixed-ownership economy and strengthen certain SOEs into globally competitive firms. They also explained that the Party branch would play a key role in helping implement the Party's requirements, while improving SOE discipline and stamping out corruption.

42. **The authorities point out that while debt risks have moderated, further steps will still be taken to curb the risks.** With reference to BIS data, the authorities highlighted that the corporate leverage in China was on a downward trend.[12] Looking forward, they stress that

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[11] These numbers are from a statement by the National Development and Reform Commission (NDRC) issued on October 5, 2017.

[12] According to the BIS, as of Q2 2017, the non-financial corporate leverage (credit to GDP) ratio was 163.4 percent, lower the peak of 166.8 percent in Q2 2016.

lowering SOE leverage ratio remains a policy priority and “zombie” enterprises will be liquidated as an important step towards reducing corporate debt. The authorities continue to support the use of debt-to-equity swaps on a market basis to help reduce corporate debt. They also believe that debt-to-equity swap is an important measure to promote SOE reforms.

Annexes: Selected Issues

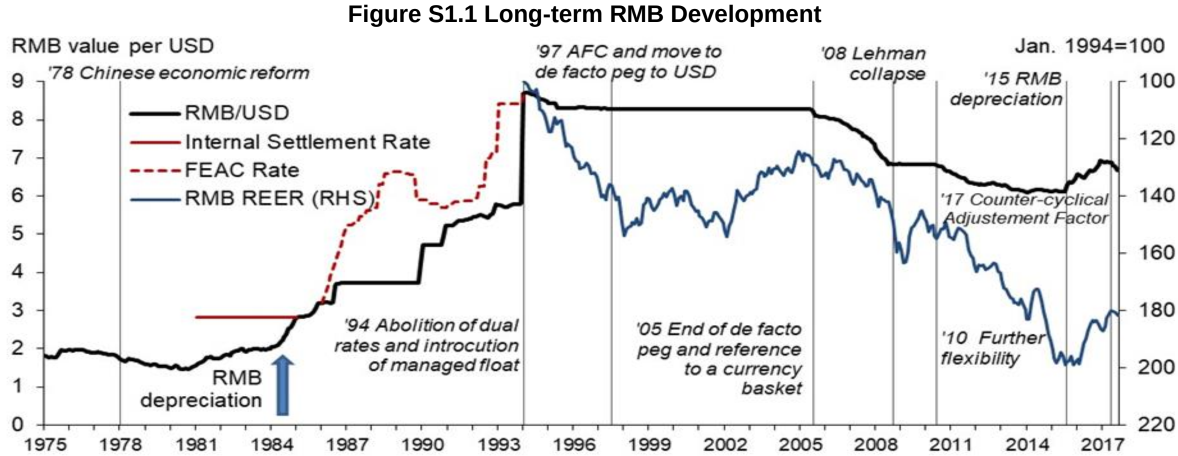
Selected Issue 1: Reforms in China's Exchange Rate Regime

This selected issue summarizes long-term developments of China's exchange rate regime and examines challenges along the way. Over the past decades, China's exchange rate regime has evolved considerably as policy priorities shifted from a primary emphasis on reaping trade and investment benefits to safeguarding financial stability and managing external pressures.

1. Dual exchange rate regime (1981 to 1993)

The official and market-based exchange rates were applied to planned and non-planned trade transactions respectively, and both depreciated over time in response to the deficits in the current accounts. Before the 1978 Chinese economic reform and opening up, the exchange rate did not play an important part in the planned economy as the economy was closed and external trade was quite limited.[13] After the launch of economic reforms and opening up, China began to gradually open its door to foreign trade and the exchange rate began to play a more significant role. While the official exchange rate moved within the rage of RMB1.5-1.8 to the USD, a more depreciated internal settlement rate of RMB2.8 to the USD was introduced in 1981 for non-planned trade transactions.[14] Subsequently, to meet the needs of enterprises for foreign exchange transactions, Foreign Exchange Adjustment Centers (FEAC) were established in major cities in 1986, enabling enterprises to adjust their foreign currency positions.[15] Unlike the official exchange rate, the exchange rates at these adjustment centers (hereafter referred to as the "FEAC rate") reflected the supply and demand conditions of the enterprises. As China became more open and imports of capital goods surged, China saw current account deficit during this period, leading to depreciation pressures on the RMB (Figures S1.1-S1.3).

Figure S1.1 Long-term RMB Development



Note: Due to the lack of data, the FEAC series in 1986 was linearly interpolated.
Source: CEIC, World Bank (1994), "China: Foreign Trade Reform"

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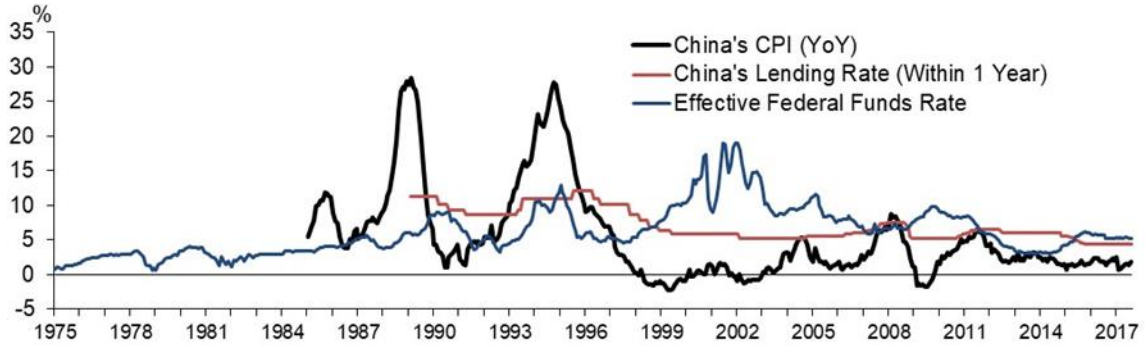
[13] The official rate was mainly used for measurement purposes such as in the preparation of financial statements and statistics. It was pegged to the USD starting in 1956 and then to a currency basket in 1973 when major advanced economies introduced the floating exchange rate regime.

[14] The internal settlement rate reflected the average export cost in 1978 plus an additional 10 percent profit margin.

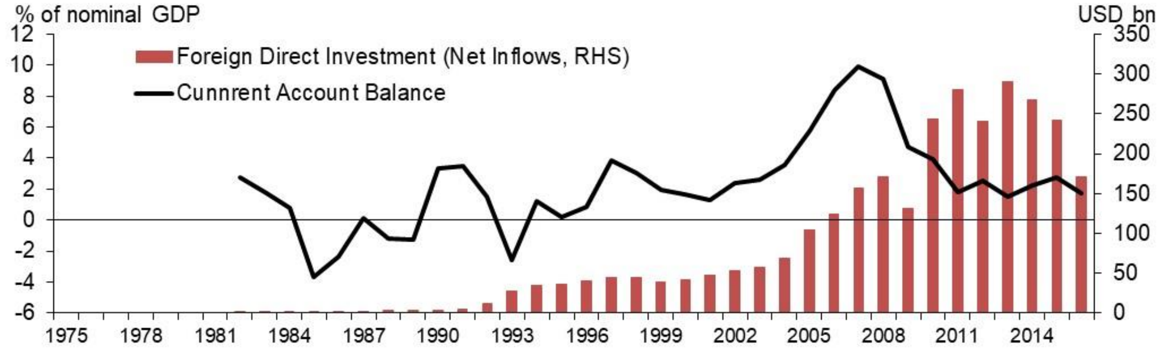
[15] In 1979, the government allowed companies to hold a portion of their foreign currency earnings gained through foreign trade. This generated demand for foreign exchange transactions.

Figure S1.2 Inflation and Interest Rates



Source: CEIC

Figure S1.3 Current Account Balance and Foreign Direct Investments



Source: CEIC

2. Single exchange rate regime with a de facto peg to the USD (1994-2005)

The dual exchange rate regime was abolished in 1994 and replaced by a unified exchange rate which was de facto pegged to the USD in 1997. In 1994, the official exchange rate depreciated toward the FEAC rate, and both were eventually unified at RMB8.7 per USD, mainly because (1) elimination of the dual rates was a requirement for membership into the GATT (General Agreement on Tariffs and Trade) and (2) the official rate became less meaningful with reduced planned trade. Under the new regime, the RMB was allowed to fluctuate within a +/-0.3 percent band from the previous day's closing value, although actual fluctuations were more contained compared to the band. Meanwhile, in order to centralize all foreign currency trading activities, the China Foreign Exchange Trade System (CFETS), an electronic trading system, was established in 1994 and FEACs were subsequently closed in 1998. Between 1994 and 1996, the RMB appreciated by 4.6 percent against the USD in nominal terms and 33.3 percent in real effective terms, on the back of large current account surpluses as well as strong FDI inflows following Deng Xiaoping's 1992 Southern Tour to restart "pro-market" reforms. In 1997, as the Asian Financial Crisis (AFC) broke out and emerging Asia currencies depreciated sharply, the stabilization of the RMB, especially against the USD, became a policy priority to help maintain financial stability amid the significant depreciation of other regional currencies. As a result, the RMB was de facto pegged to the USD at around RMB8.28 to the dollar beginning November 1997.

3. Managed float based on market supply and demand with reference to a basket of currencies (2005 onwards)

In July 2005, the de facto peg to the USD was replaced with a more flexible managed float with reference to a basket of currencies. Concomitantly, the RMB was revalued about 2 percent higher against the USD.[16] The move to end the fixed dollar peg reflected China's policy shift towards an exchange rate that would be more flexible and market-oriented. The trading band against the USD widened to +/-0.5 percent in May 2007 from the previous +/-0.3 percent. Meanwhile, the RMB was allowed to trade within a +/-1.5 percent band against other currencies, wider than the previous +/-1.0 percent band. Domestically, one major consideration is to pursue further market-oriented reforms and increase exchange rate flexibility to help improve resource allocation and enhance export competitiveness. Another reason is that there was increasing international pressure, amid claims that the RMB was undervalued, exacerbating global current account imbalances.[17] The revaluation in the RMB exchange rate was expected to help induce domestic reforms and address external imbalances. Between June 2005 and the outbreak of the global financial crisis (GFC) in September 2008, the RMB appreciated by 17.2 percent against the USD and by 14.6 percent in real effective terms.

While maintaining RMB stability was emphasized during the GFC to safeguard overall financial stability, the RMB was allowed to move more flexibly once the adverse effects of the crisis began to ease. During the GFC, the RMB/USD exchange rate was mostly flat and international peer pressure subsided as the focus shifted towards securing the stability of financial systems of advanced economies. During this time, China undertook a sizable economic stimulus package which helped support the global economy and led to a decline in its current account surplus. China's strong recovery, from a GDP growth of 6.4 percent at its trough in Q1 2009 to 12.2 percent in Q1 2010 increased the authorities' confidence to allow for more flexibility in the exchange rate. In June 2010, the PBC issued a statement announcing further RMB reform which would accord greater flexibility to the exchange rate. This move was timely given that inflationary pressures were building up following a period of accommodative monetary conditions. As the U.S continued to suffer from low growth and amid continued claims of external imbalances, international peer pressure, particularly from the U.S., began to build up again. In response, China reaffirmed its commitment to allow the exchange rate to be set by market forces once the strong headwind subsided. Subsequently, the RMB appreciated, and the band of fluctuation against the USD widened to +/-1.0 percent in April 2012 and to +/-2.0 percent in March 2014.

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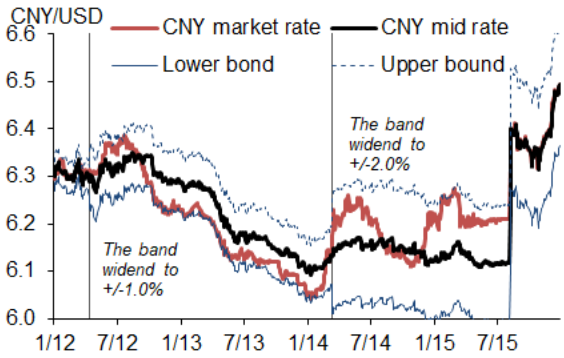
[16] The currency weights in the RMB basket are not disclosed.

[17] In 2003, the U.S. Secretary of Treasury publicly expressed Washington's preference for a more flexible renminbi. In April 2005, the G7 statement emphasized that "more flexibility in exchange rates is desirable for major countries or economic areas that lack such flexibility to promote smooth and widespread adjustments in the international financial system, based on market mechanisms." The G7 released a statement to welcome China decision after the exchange rate reform announcement.

In August 2015, the PBC announced changes in the daily fixing methodology, resulting in a 1.9 percent depreciation in the official RMB/USD fixing rate. Reflecting the appreciation in the USD prior to the Fed's imminent policy normalization, the market exchange rate had moved toward the upper bound of the band in the first half of 2015 (Figure S1.4). In August 2015, the midpoint of the band was adjusted upward towards the previous market rate. More importantly, to better incorporate market mechanisms into the fixing, the PBC announced changes in the way the daily fixings would be determined. The closing prices (not the mid-prices) of the previous day would be taken into consideration in the fixing of the following day's central parity rate. This marked another important step towards continued reform of the RMB to a more market-oriented exchange rate and came four months before the IMF's decision to include the RMB in the SDR basket. This policy move preceded a period of exchange rate depreciation which peaked at RMB6.96 to the USD around the end of 2016 due mainly to massive capital outflows reflecting concerns over the growth slowdown, the unwinding of the carry trade, and the pace of U.S. monetary policy normalization. Regional currencies were affected and depreciated significantly in tandem with the RMB depreciation. More recently in May 2017, another adjustment was made to the exchange rate mechanism, namely the introduction of the counter-cyclical adjustment factor to enable the exchange rate to better reflect the economic growth momentum and, in turn, mitigate irrational and self-reinforcing dynamics in the market. This resulted in the stabilization of the RMB exchange rate and led to its gradual appreciation against the weakening U.S. dollar.

Figure S1.4 Fixing Rate and Market Rate



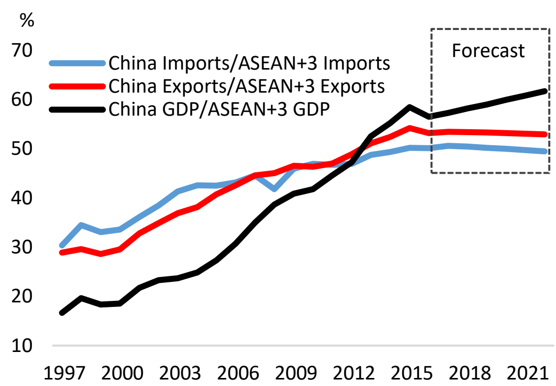
Source: Bloomberg

In conclusion, the RMB has gradually become more flexible and market-determined over the past few decades, even as the authorities continue to intervene to avoid excessive volatility in its movements. The timing and sequencing of further reforms towards a more flexible exchange rate regime, alongside ongoing measures towards capital account liberalization, RMB internationalization, and the further development of the monetary policy framework, need to be well-planned taking into consideration both domestic and external stability conditions. Moving forward, clear communication remains crucial in avoiding unintended short-term effects of any policy changes and enhancing the effectiveness of the exchange rate policy over the longer term.

Selected Issue 2: China's Increasing Economic Linkages with ASEAN and the Potential Spillover Effects

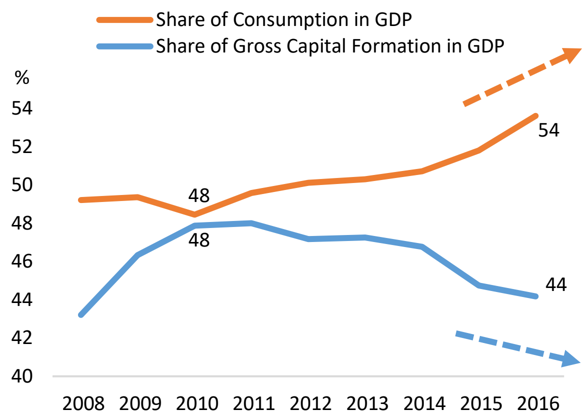
With China's economy growing and economic restructuring further proceeding, China's economic linkages with ASEAN countries have been rising with potential spillover effects through different channels. With high growth rates over the past 40 years, China has become the largest economy in Asia. China's GDP (market value) accounted for 19 percent of the ASEAN+3 in 2000, and increased rapidly to 57 percent in 2016. Considering that China's growth is likely to be higher than the regional average in the medium term, the share is expected to rise further to more than 60 percent in the next five years (Figure S2.1). Meanwhile, China's external trade has also increased rapidly over the past three decades. In this region (ASEAN+3), China's share of trade rose to 52 percent as of end 2016, from around 27 percent in 1996. China's increasing economic linkages with ASEAN have led to potentially large spillover effects on ASEAN. At the same time, China's is undergoing economic restructuring and reforms, including: (1) shifting toward a more consumption-driven growth (Figure S2.2); (2) enhancing environmental protection and energy usage efficiency; (3) further opening up and developing market-oriented financial markets; and (4) increasing ODI through the Belt and Road Initiative (BRI). All these will have increasing linkages with ASEAN countries, through goods and services trade, investments and financial markets. We summarize China's increasing economic linkages with ASEAN and the potential spillover effects through different channels, use model simulations to further examine and quantify the impacts.

Figure S2.1 Share of China's GDP and Trade in ASEAN+3



Source: IMF, Authorities, AMRO estimates

Figure S2.2 China's Structural Adjustment: Shares of Consumption and Investment



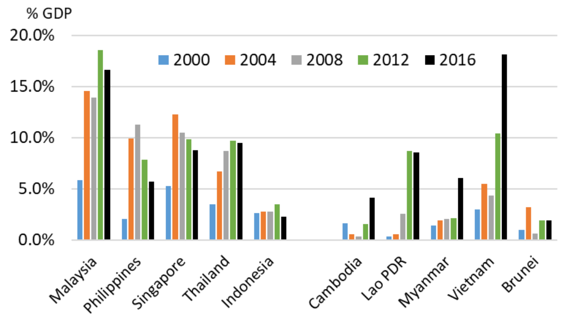
Source: NBS, AMRO estimates

1. Channels of China's Increasing Economic Linkage with ASEAN

1.1 Goods Trade

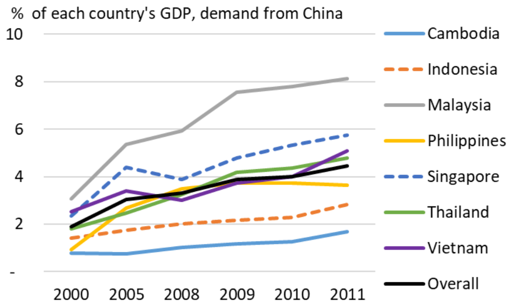
Goods trade is the most important channel, as ASEAN's goods exports to China have been increasing continually and the value accounts for a significant share of GDP in several ASEAN countries. In 1990, exports to China accounted for only 2 percent of ASEAN's total exports, but by 2016, the value increased to more than 12 percent. Measured by share of GDP, most ASEAN countries saw their exports to China rose to high levels in 2016, especially Vietnam (18 percent), Malaysia (17 percent), Thailand (9 percent), Lao PDR (8 percent), Singapore (8 percent) as shown in Figure S2.3. Similarly, in terms of value-added, their exports to China show a rising trend. Therefore, it is clear that the demand from China has become a larger source of GDP growth in these countries (Figure S2.4).

Figure S2.3 Selected Countries' Exports to China as a Share of Their GDP



Source: : UN COMTRADE (reporting country=China), Authorities, AMRO estimates

Figure S2.4 ASEAN's Exports (Value-added) to China as a Share of GDP



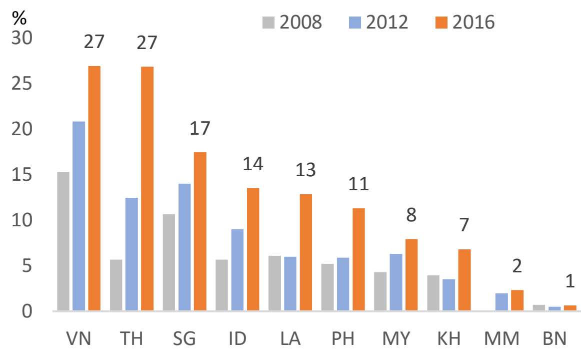
Source: OECD, Authorities, AMRO estimates

1.2 Tourism

China's outbound tourists and tourism spending have accelerated. The outbound number of tourists has accelerated since 2012 with incomes rising and middle-class rapidly growing. As a share of global tourists, China's share rose to 9 percent in 2015 from only 1 percent in 1995. At the same time, spending by Chinese outbound tourists has been rising at a faster pace, and its share in global tourism spending rose to 25.0 percent in 2015, compared to 1.0 percent in 1995.

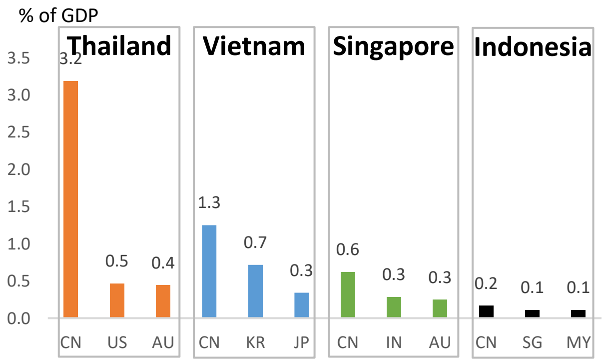
Many ASEAN countries have benefited from the increased number of outbound tourists from China. The number of Chinese tourists visiting ASEAN has increased rapidly in recent years. In 2016, the Chinese tourists make up the largest share of foreign visitors in most ASEAN countries. In particular, China's tourists accounted for 27 percent of all tourists in both Vietnam and Thailand in 2016. As shown in Figure S2.5, the shares were also high in Singapore (17 percent), Indonesia (14 percent), Lao PDR (13 percent) and the Philippines (11 percent). As a percentage of ASEAN countries' GDP, spending by Chinese tourists is also significant in Thailand (3.2 percent), Vietnam (1.3 percent), Singapore (0.6 percent) and Indonesia (0.2 percent) (Figure S2.6).

Figure S2.5 The Share of Chinese Tourists in Total Foreign Visitors in Each ASEAN Country



Source: Authorities in ASEAN, AMRO

Figure S2.6 Top Three Tourists Origins by Spending, as a Percentage of Selected ASEAN Countries' GDP in 2016

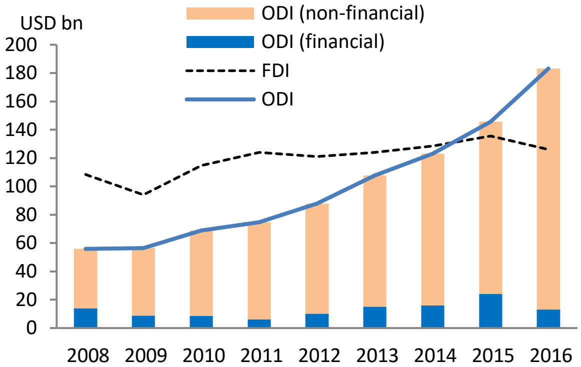


Source: Authorities, AMRO

1.3 Outward Direct Investments

China's ODI has continued to grow rapidly in recent years. China's outbound direct investment (ODI) has increased significantly, and it even surpassed China's FDI in 2015. In 2016, ODI rose further to USD183.0 billion (Figure S2.7) reflecting continued business expansion in overseas markets, increasing demand for investment diversification, the authorities' strategy to encourage enterprises to invest abroad, and the BRI.

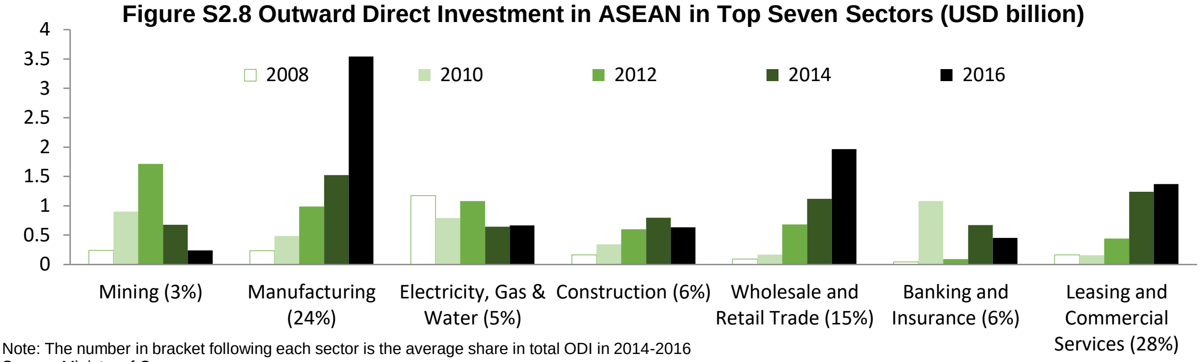
Figure S2.7 Inward and Outward Direct Investment



Source: Ministry of Commerce

China's ODI to ASEAN has increased steadily and are largely concentrated in manufacturing, wholesale and retail trade, as well as leasing and commercial services. China's ODI to ASEAN has grown at a faster pace than Chinese ODI to other regions. As a percentage of China's total ODI, ODI to ASEAN doubled from 2007 (3 percent) to 2015 (6 percent). The cumulative ODI to ASEAN rose to USD63 billion in 2015 from USD4 billion in 2007. By sector, manufacturing received the largest share, due to establishments of regional supply chain with emerging ASEAN economies and competitive labor costs in developing ASEAN economies. ODI in wholesale and retail trade, leasing and commercial services has also grown rapidly, in line with rapidly-growing consumption in several ASEAN economies 1(Figure S2.8).

Figure S2.8 Outward Direct Investment in ASEAN in Top Seven Sectors (USD billion)



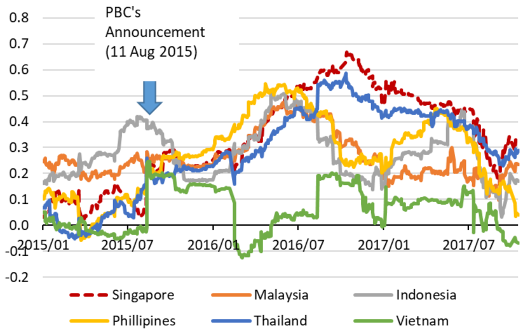
Note: The number in bracket following each sector is the average share in total ODI in 2014-2016
Source: Ministry of Commerce

Regional financial centers have played an important intermediary role in facilitating China's ODI to ASEAN. A growing share of Chinese firms' overseas investments is from mainland China directly, as Chinese investors have become more familiar with the international market and practices. Nevertheless, Hong Kong SAR remains an important financial intermediary hub for China's ODI. This is because Chinese firms usually set up major overseas branches in Hong Kong SAR, where information, funding, specialty and legal system are more favorable for overseas investments. A sizable amount of ODI from China likely comes to ASEAN through Hong Kong SAR. Within ASEAN, China's ODI is much higher in Singapore than elsewhere (51 percent of total Chinese ODI in ASEAN during 2014-2016). This is because most Chinese firms which are expanding their business in ASEAN would set up their regional headquarters/branches in Singapore. A sizable proportion of these ODIs is eventually reallocated into other ASEAN economies through regional headquarters/ branches in Singapore.

1.4 Financial Markets

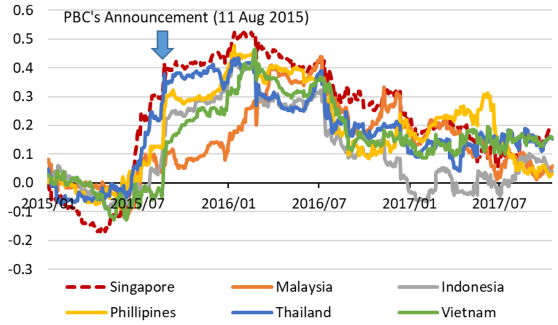
China's financial market has an impact on ASEAN, mostly through the effects of market sentiments. So far, ASEAN investors' portfolio exposure to China's financial markets is quite limited and vice versa. Nevertheless, given that China is the largest economy in the region, and a key growth engine and export market for ASEAN, volatility in China's financial market could affect sentiments in ASEAN's financial markets and lead to greater volatility. For instance, in August 2015 when China reformed its RMB/USD central parity pricing mechanism, the RMB depreciated against the USD by 2.0 percent on 11 August after the announcement. Following the RMB's depreciation, Indonesian Rupiah, Malaysian Ringgit, Singapore Dollar, Philippines Peso and Thai Baht all depreciated. The correlation between the exchange rates went up (Figure S2.9). At the same time, China's stock market also had a significant impact on the region. China's stock market corrections in both late August 2015 and early January 2016 triggered stock market declines in most ASEAN markets. As shown in Figure S2.10, similar to the FX market, the correlation between China's stock market and ASEAN stock market went up in this period, before declining recently.

Figure S2.9 Correlation between RMB Exchange Rate (against USD) and ASEAN Currencies



Note: A moving window of one year is employed.
Source: Bloomberg, AMRO staff calculations

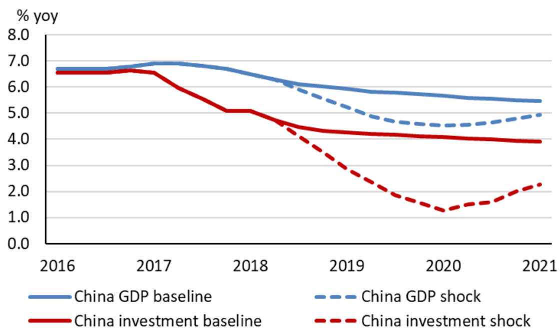
Figure S2.10 Correlation between China Stock Index and ASEAN Stock Index



Note: A moving window of one year is employed.
Source: Bloomberg, AMRO staff calculations

2. Simulation Results of China's Spillover Effects on ASEAN

Figure S2.11 Shocks from China's GDP

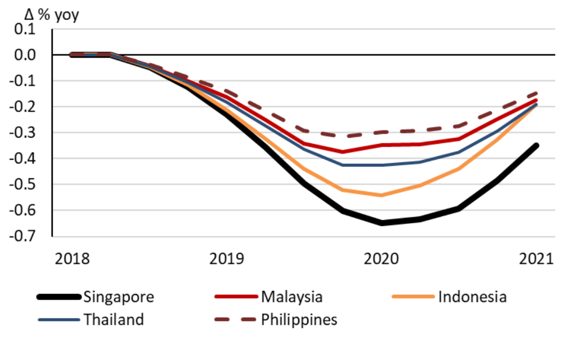


Source: Oxford Economics, AMRO staff calculations

We used two models to empirically assess spillover effects on ASEAN from a shock originating in China. These are a macro-econometric model developed by Oxford Economics and a Global Vector Autoregressive (GVAR) model to study China's impact on ASEAN's real economy and financial markets. The Oxford model captures the key relationships in different countries. In the short-run, shocks to demand will generate economic cycles, but over the long-run, output is determined by supply-side factors. The GVAR model is a joint work between AMRO and Professor Tomoo Inoue of Seikei University, Japan.

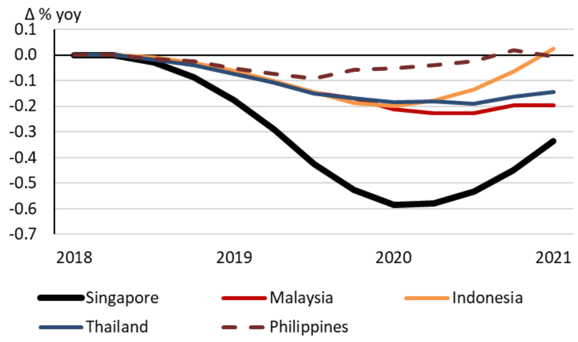
Results from Oxford Economics model suggest that growth shocks in China have a significant impact on ASEAN. We assume that China's growth will fall and be 1.0 percent lower than the baseline in the year 2020 before bouncing back (Figure S2.11). It will immediately lower China's demand for exports of goods and services from the world, including from ASEAN. ASEAN-5 countries will see their exports fall by 0.3-0.6 percent in 2020 (Figure S2.12). At the same time, as ASEAN countries are highly open to trade and exports comprise a large share of GDP, the impact on ASEAN's GDP is also significant (Figure S2.13), ranging from 0.1 percent to 0.6 percent.

Figure S2.12 China Slowdown, Impact on ASEAN Exports



Source: Oxford Economics, AMRO staff calculations

Figure S2.13 China Slowdown, Impact on ASEAN GDP



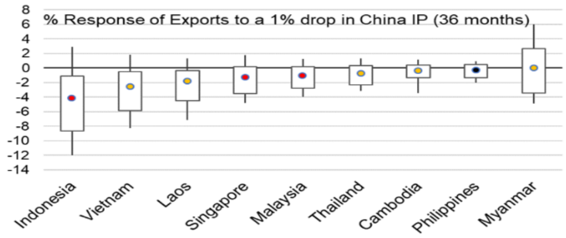
Source: Oxford Economics, AMRO staff calculations

In the financial markets, simulations using Oxford Economics model suggest that commodity-exporting countries are most sensitive to a large RMB depreciation and all regional stock markets are sensitive to a large equity market swing in China. In the scenario of a large RMB depreciation, the Oxford Economics model calibrates the ASEAN exchange rates using the past two episodes of sharper RMB depreciation as benchmarks, that is, 10-25 August 2015 and the first week of 2016. If the RMB were to depreciate by 5.0 percent, the Indonesian Rupiah and the Malaysian Ringgit (the currencies of commodity-exporting countries) would show the strongest reaction to this shock and depreciate by more than 5.0 percent. As for the equity market shocks from China, the Oxford Economics model also calibrates the reaction of the ASEAN stock market empirically. The simulations show that regional stock markets will decline significantly by 4.8 to 6.1 percent in response to a fall of 10 percent in Chinese stock markets.

Results from the GVAR analysis also suggest that growth shocks (proxied by industrial production) in China have a significant impact on ASEAN. [18] In terms of nominal export performance (in local currency terms), a sustained 1.0 percent drop in China's industrial production has negative spillovers to exports from ASEAN (Figure S2.14), and it also has a significant impact on ASEAN's industrial production (Figure S2.15). The impact on ASEAN's industrial production from shocks in China is larger and more sustained than shocks originating in other countries such as Japan and the U.S.

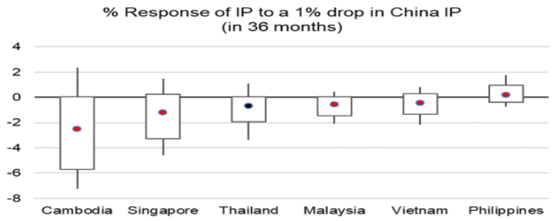
[18] For the real economy GVAR model, the specification uses economy-specific variables such as industrial production, consumer prices, trade, nominal effective exchange rates (NEERs) and interest rates as well as other global variables such as oil and food prices. Monthly data is used.

Figure S2.14 Real Sector GVAR, Impact on ASEAN's Exports



Source: AMRO staff estimates

Figure S2.15 Real Sector GVAR, Impact on ASEAN's Industrial Production



Source: AMRO staff estimates

3. Summary of China's Impacts on ASEAN through different Channels

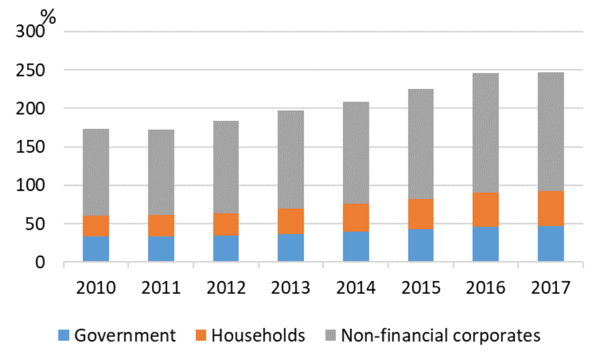
ASEAN countries have benefited from greater linkages with China but some have benefited more than others from China's economic rebalancing. Based on the spillover analysis through different channels, and also based on the model simulation, we have the following findings. First, most countries in ASEAN have benefited significantly from China's growing economy, enhanced manufacturing capacity, outbound investments and tourism abroad. Exports from several ASEAN countries are also responding to rising consumer goods' exports to China. On the other hand, capital goods and commodities exporters from ASEAN have continued to face weak demand from China against China's rebalancing toward consumption-led growth. In the financial market, market volatility in China will likely affect most emerging and developed countries in ASEAN. Developing ASEAN will be less affected as their financial markets are less developed.

Selected Issue 3: High Corporate Debt in China: Macro and Sectoral Risk Assessments

This note summarizes the results of the analyses of corporate debt profiles by sector, their risks to the banking system, and discusses policy implications. They are drawn from the recent AMRO staff working paper titled "High Corporate Debt in China: Macro and Sectoral Risk Assessments" in the second half of this publication.

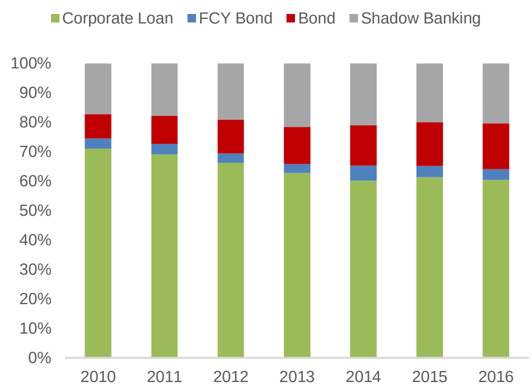
China's non-financial corporate debt (corporate debt) has increased rapidly, and the ratio of corporate debt-to-GDP was as high as 158 percent in 2017 (Figure S3.1, AMRO estimate). Structural and institutional factors combined with cyclical factors in the form of the stimulus package during the GFC have contributed to the rapid increase in corporate debt. High savings has led to high debt financing, especially with underdevelopment of equity financing facilities. The rapid urbanization process has also relied significantly on debt financing for infrastructure and real estate projects.

Figure S3.1 Debt-to-GDP Ratio



Note: AMRO's estimate of China's corporate debt is lower than BIS, as AMRO avoided double counting of some debt as both corporate debt and government debt.
Source: BIS, AMRO staff calculations

Figure S3.2 Corporate Debt Structure (%)



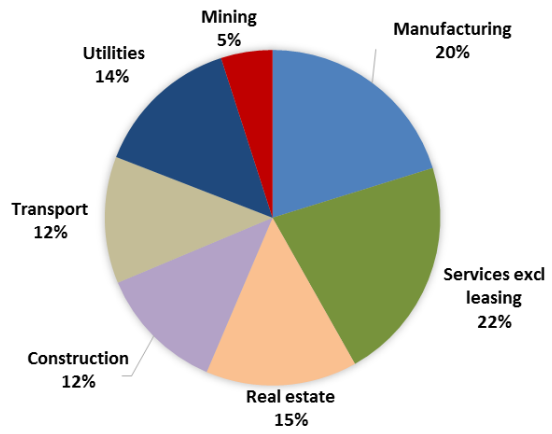
Source: AMRO

Bank loans are the main source of financing for corporates but corporate debt is increasingly being financed by corporate bonds and shadow banking loans (Figure S3.2). Banks have traditionally been the main creditors in China. On the other hand, corporate bonds have seen their share of financing increasing owing to the authorities' efforts to develop the bond market and firms' incentive to reduce financing costs. The share of shadow banking loans in corporate debt has also been increasing. As for overseas borrowing, its share increased in 2010-2014 amid the strengthening in RMB but has largely stabilized since 2015 with the depreciation of the RMB and a boom in the domestic bond market. The current structure of corporate debt financing is likely to evolve further due to stricter regulations on shadow banking loans and the rising interest rate trend.

Corporate debt is concentrated in the sectors prioritized under the investment-led growth model (Figure S3.3). The sectors that account for significant shares of total corporate debt include manufacturing (20 percent), real estate (15 percent), utilities (14 percent), construction (12 percent) and transport (12 percent). Compared to their shares in GDP (Figure

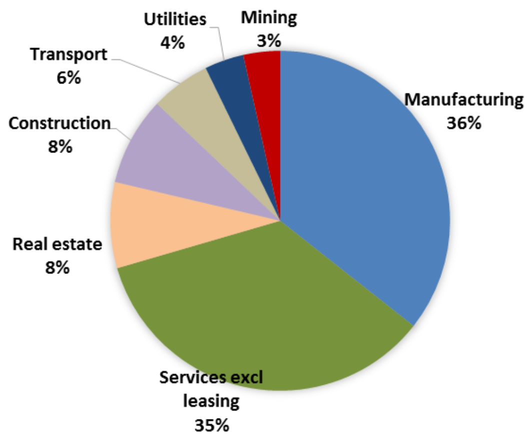
S3.4), utilities and transport have a much larger share of debt, and the opposite is true for manufacturing and services, excluding leasing.

Figure S3.3 Corporate Debt by Sector as of 2016[19]



Source: WIND, PBC, CBRC, China Trustee Association, AMRO staff estimates

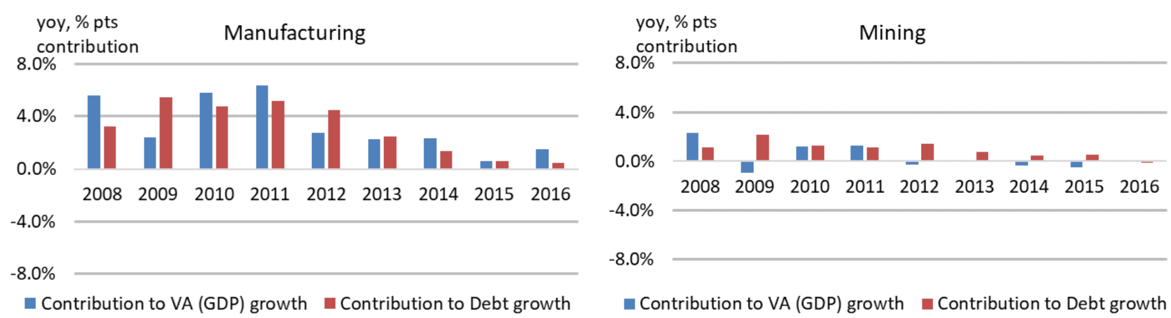
Figure S3.4 GDP by Sector as of 2016



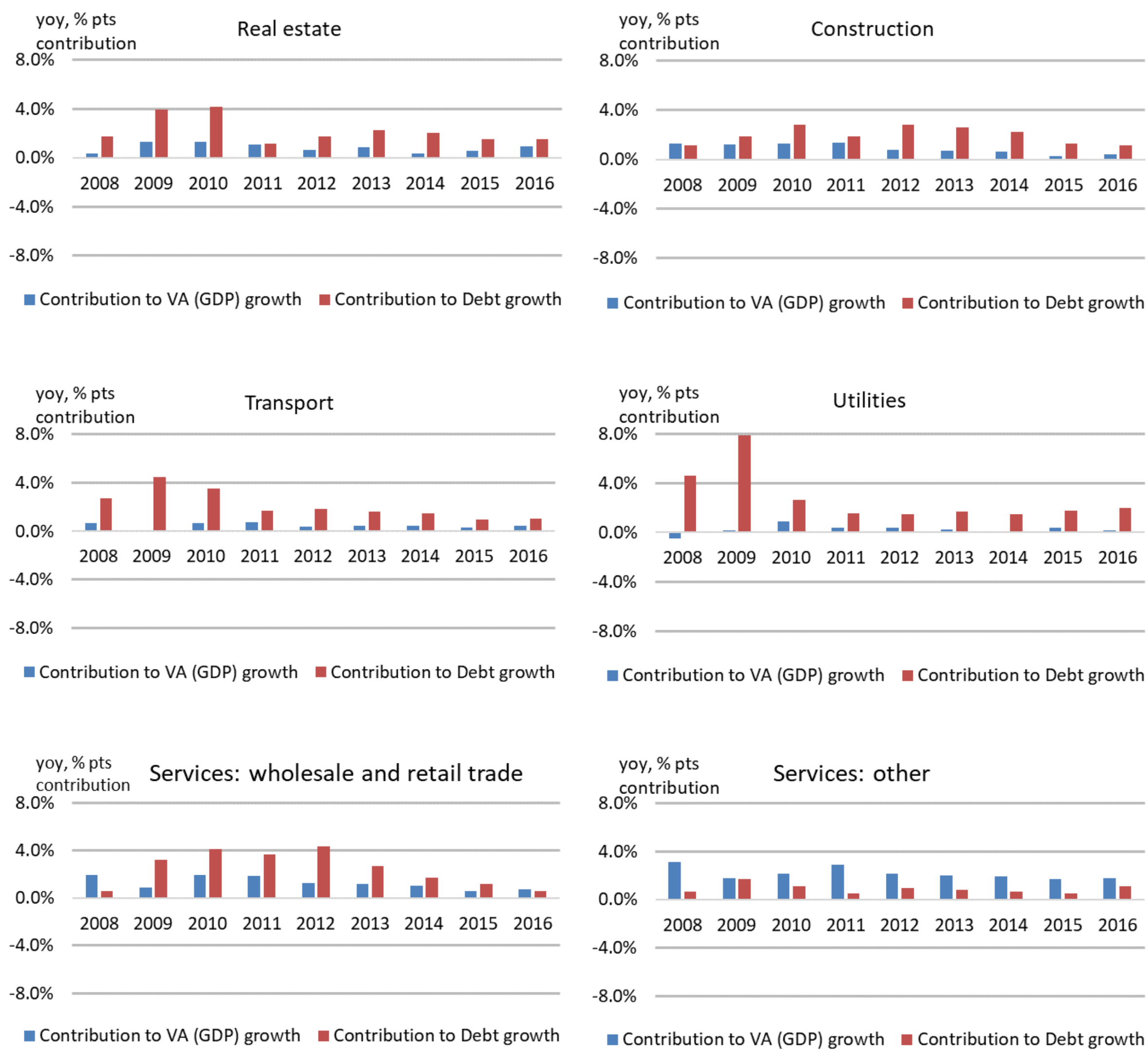
Source: NBS, AMRO staff estimates

The accumulation of debt has tapered off across sectors but corporate debt-to-GDP ratio has continued to rise as debt growth still exceeds output growth, especially in utilities, transport, real estate and construction. Figure S3.5 shows the contribution of each sector to debt growth and GDP growth between 2008 and 2016, and its contribution to debt-to-GDP (or value-added (VA)). In general, debt growth has slowed since 2011 in most sectors alongside moderating GDP growth. However, in the utilities, transport, real estate and construction sectors, debt continues to grow faster than GDP. As shown in Figure S3.6, in these sectors, the debt-to-VA ratio is high. Also, in mining and construction, debt-to-VA ratio increased by more than twofold from 2007 to 2016.

Figure S3.5 Contribution of Selected Sectors to Output and Debt Growth



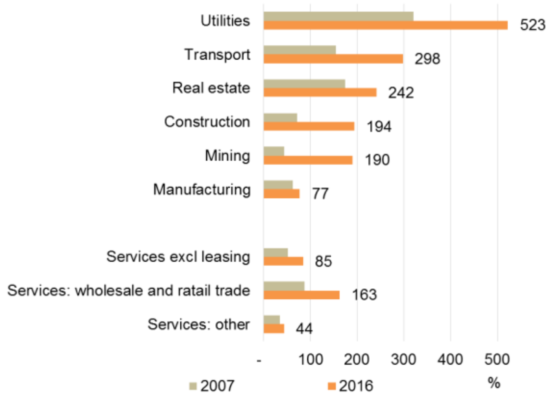
[19] The leasing and commercial services sector has also made substantial borrowings as it is also a priority sector under the investment-led growth model, encompassing, amongst others, investments in aircraft. However, as the focus is on non-financial corporates, this sector is excluded from our analysis given that leasing and commercial services possess certain characteristics that resemble those of financial services.



Source: NBS, WIND, Bloomberg, PBC, CBRC, China Trustee Association and AMRO staff estimates

Pockets of vulnerabilities associated with declining profits and debt repayment capacities are surfacing within the mining and real estate sectors and among steel firms. For most sectors, the liability-to-asset[20] ratio of Chinese firms has not risen to the same degree but has remained stable. This is because firms have increased assets in tandem with the accumulation of liabilities in order to expand and upgrade. However, profit margins and debt repayment capacity have

Figure S3.6 Debt-to-VA by Sector



Source: NBS, WIND, Bloomberg, PBC, CBRC, China Trustee Association, AMRO staff estimates

[20] We use liabilities-to-asset instead of debt-to-asset, as the NBS sample does not provide financial information on debt, but only on liabilities.

declined, as indicated by the interest coverage ratio, particularly in the mining and real estate sectors.

Within the industrial sector,[21] SOEs seem to show weaker solvency indicators than non-SOEs. National Bureau of Statistics (NBS) data suggests that compared to non-SOEs, SOE firms have slightly higher leverage (Figure S3.7),[22] lower profit margins (Figure S3.8) and lower debt repayment capacity, measured by the interest coverage ratio (Figure S3.9). In addition, in terms of leverage and profit margin, the gap between SOEs and non-SOEs widened between 2014 and 2016, compared to the period between 2008 and 2010. Industrial firms, and in particular, SOEs, have been less efficient than their private counterparts and some of them have additional burden from social functions such as providing pensions, community service, education and medical expenses. Nevertheless, there are limitations to simply measuring solvency by these metrics (including interest coverage ratio) of the overall industrial sector. This is because while most SOEs are in the upstream industries with larger investment scale, requiring longer time to recovery capital and low-profit margin, they are more stable than the mid- and-downstream industries, and have large amounts of fixed assets to ensure solvency.

Figure S3.7 SOE vs Non-SOE. Liabilities-to-Assets

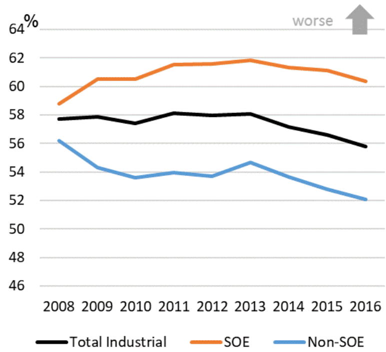


Figure S3.8 SOE vs Non-SOE. Profit Margin

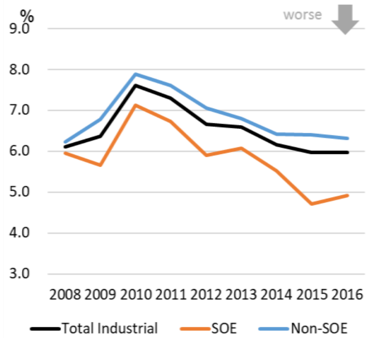
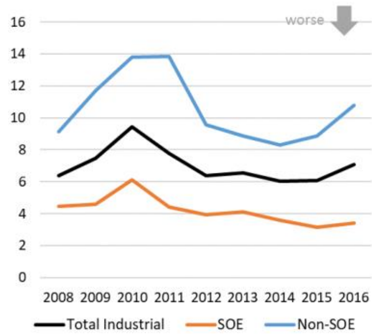


Figure S3.9 SOE vs Non-SOE. Interest Coverage Ratio



Source: NBS, WIND, Bloomberg, AMRO staff estimates

Firms in the real estate sector and other sectors with overcapacity, particularly mining, have been relying more on short-term financing that exposes them to greater liquidity risks. As firms in the real estate sector have relied more on shadow banking loans, they are more prone to liquidity shocks as the tenors of shadow banking products are typically short and funding is often from the interbank market or wealth management products. In the bond market, corporates in the sectors with overcapacity—particularly coal mining companies—have been issuing bonds with shorter tenures and are faced with increasing refinancing risks amid the recurring need to rollover their debt.[23] As interest rates rise and regulations around shadow banking activities tighten, it will become more expensive for these companies to

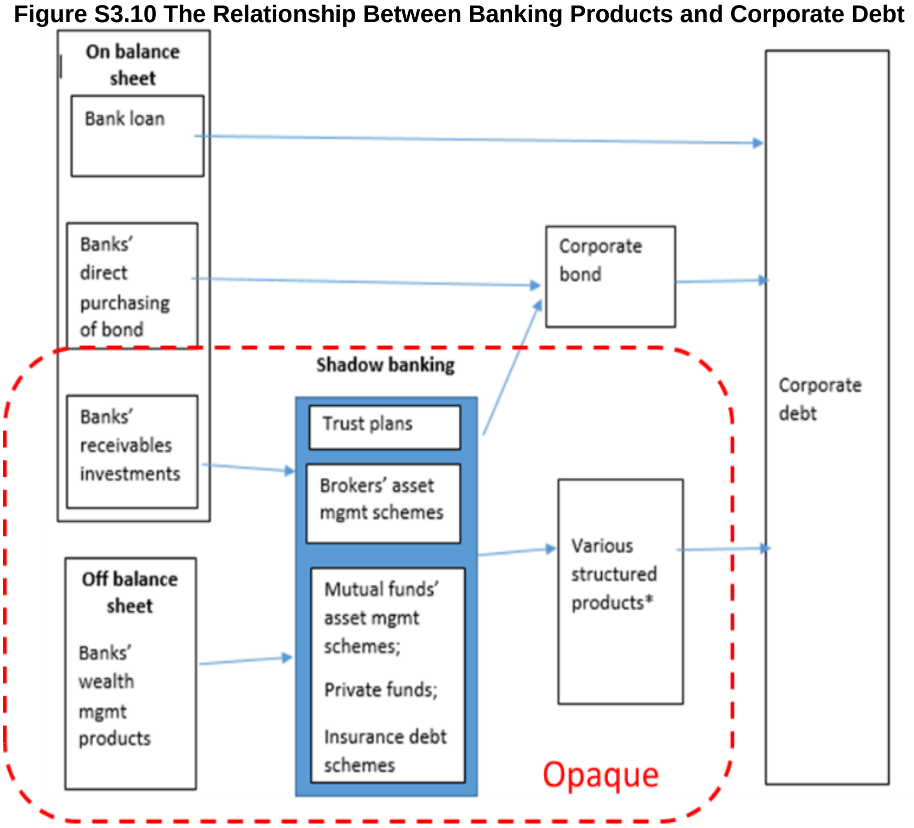
[21] The industrial sector includes manufacturing, mining, electricity, gas and water production (a sub-sector of utilities) and construction.
[22] The gap of asset and liability ratio between SOEs and non-SOEs is relatively small.
[23] There are a few reasons for this: (1) In some sectors, such as coal, investors have limited appetite for bonds with longer tenures as risks are high; (2) some corporates have more incentive to borrow short-term because of lower rate; (3) regulators had given corporates more liberty in structuring the tenure of their bonds.

refinance their debt. Our analysis shows that the proportion of listed firms' liabilities that are short-term (<12 months) is more than 70 percent, which is higher than that of global peers.

Smaller banks are more exposed to riskier sectors not just through bank loans but also through shadow banking channels as well. As shown in Figure S3.10, in addition to bank loans, banks hold large amounts of corporate bonds on their balance sheets and are active in shadow banking activities using both on and off-balance sheet vehicles. For smaller banks, not only are their traditional bank loans more skewed to riskier sectors (Figure S3.11) such as wholesale and retail trade, real estate and construction, but they are also more active in shadow banking activities. As shadow banking is also skewed to riskier sectors, is less transparent and subject to higher liquidity risk, smaller banks are more exposed to both credit and liquidity risks.

Concerted and enhanced efforts are warranted to rein in debt in vulnerable sectors in the medium-term and mitigate financial stability risks. The results from our study indicate that policy efforts need to focus on two main areas—curbing the pace of rising corporate debt and addressing the risks faced by corporates in vulnerable sectors as well as risks to the financial sector. The study highlights that risk assessments and monitoring need to be done at both the aggregate and sectoral levels. It is crucial to proceed with deleveraging and further enhance SOEs' investment efficiency. Policymakers should continue to pursue the debt-to-equity swap initiative to curb debt, use macro-prudential measures to limit risks such as in the real estate sector, enhance regulations around shadow banking activities and strengthen buffers for smaller banks with high exposure to risky sectors. In terms of fiscal measures, policymakers should continue to enhance transparency in local government financing vehicles, improve public-private partnership (PPP) mechanisms, and allocate fiscal resources to help the vulnerable industries in capacity reduction.

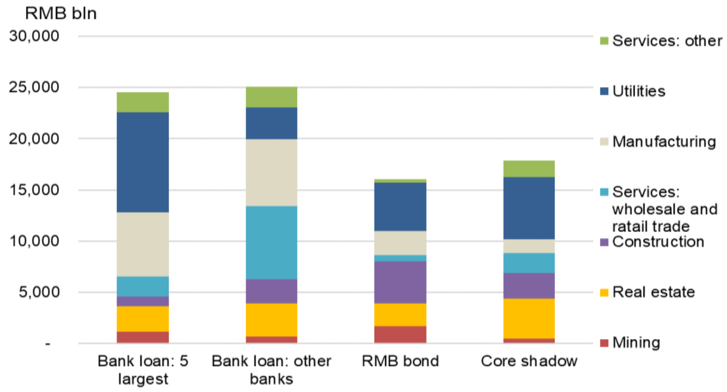
Figure S3.10 The Relationship Between Banking Products and Corporate Debt



Note:
1. The amount of the various structured products is close to core shadow banking.
2. The public securities investment funds and part of securities companies' private equity products beyond the money market fund do not belong to shadow banking products.

Source: AMRO

Figure S3.11 Corporate Debt by Sector (as of 2016)



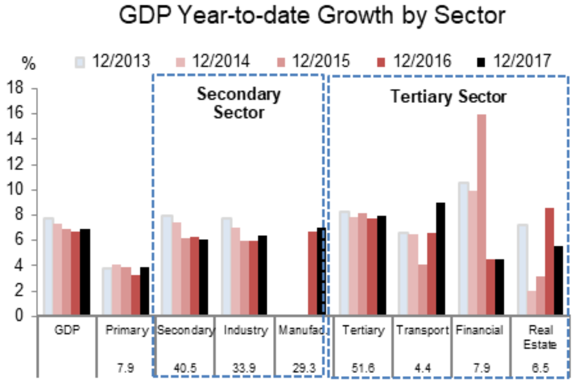
Note: Leasing and commercial services are excluded. Mining, real estate and construction are considered to be the more vulnerable sectors.
Source: WIND, Bloomberg, PBC, CBRC, China Trustee Association, bank financial statements, AMRO staff estimates

Appendices

1. Selected Figures for Major Economic Indicators

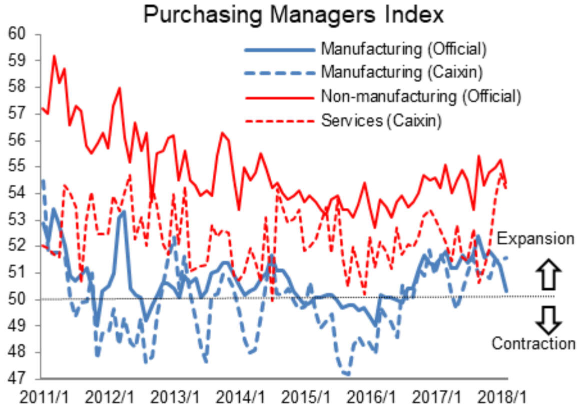
Figure 1. Economic Growth and the Labor Market

The growth drivers include expanding industrial production partly on the back of incentives from rising prices and improved profits.



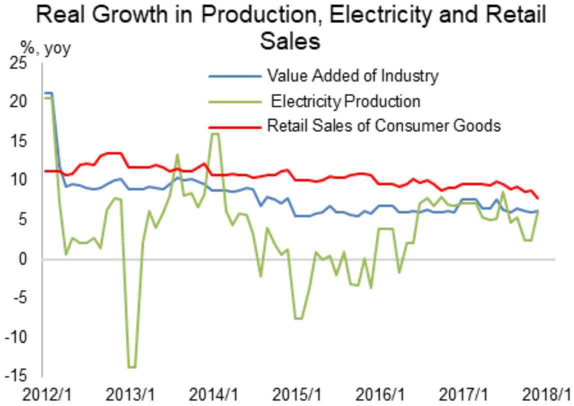
Note: Number is the share in GDP in the latest year.
Source: NBS and AMRO staff calculation

Monthly non-manufacturing activities continued to expand at a faster pace than manufacturing activities.



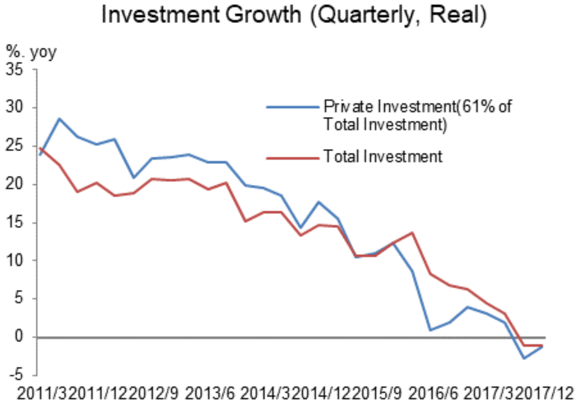
Source: NBS, Markit

Growth in retail sales and industrial value-added remained stable.



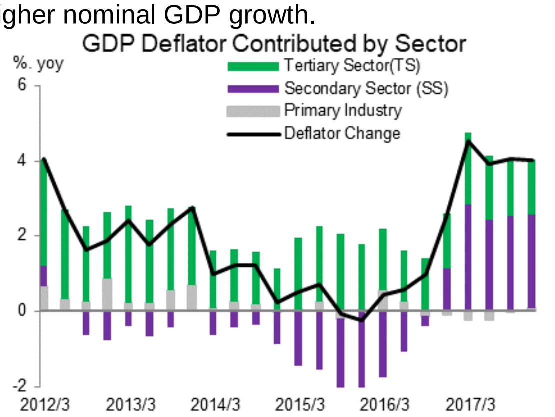
Source: NBS

Total investment especially the private investment remained at a moderate level.



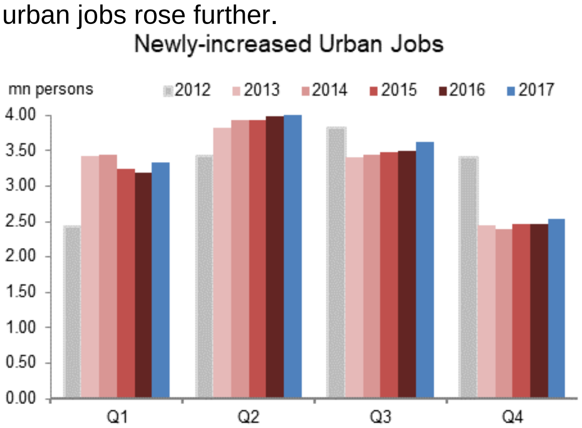
Source: NBS

GDP deflator rose in 2017, supported by both rising services and production prices, and indicated much higher nominal GDP growth.



Source: NBS and AMRO staff calculation

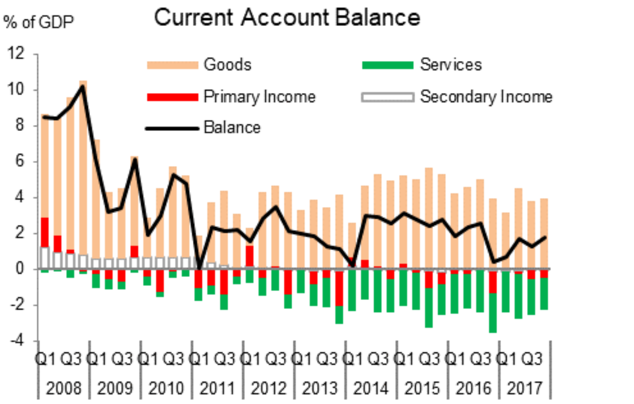
Thanks to easing administrative control and expanding services sector, newly-increased urban jobs rose further.



Source: Ministry of Human Resources and Social Security

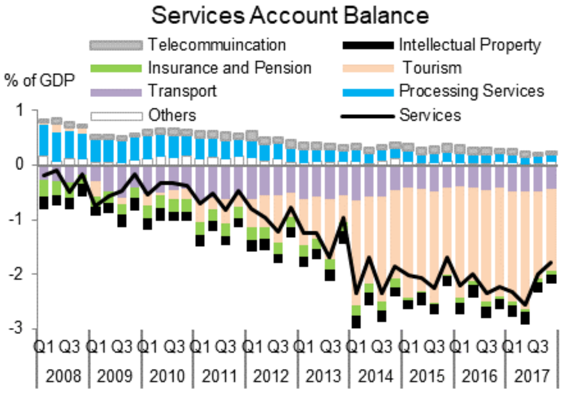
Figure 2. The External Sector

Current account surplus continued to be moderate.



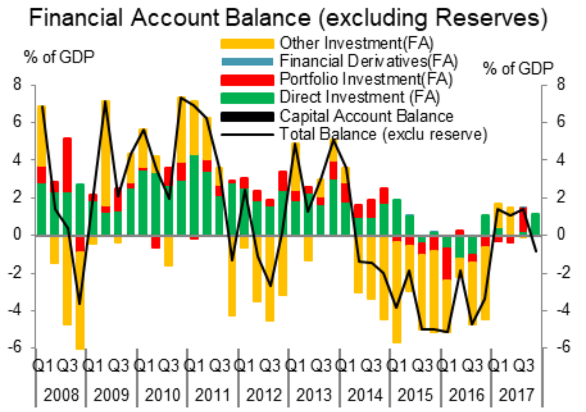
Source: SAFE, AMRO

Services deficit remained large due to rising outbound tourism spending.



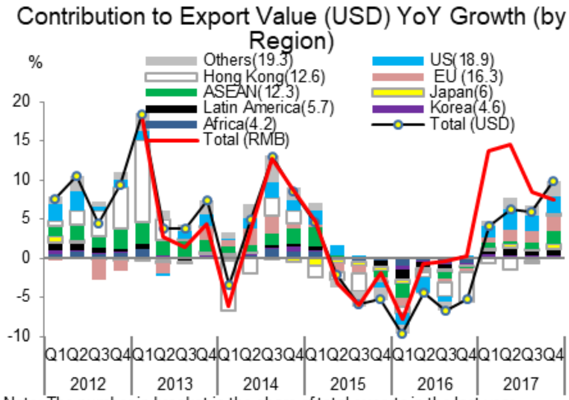
Source: SAFE

The capital and financial account registered a surplus in 2017 for the first time in four years.



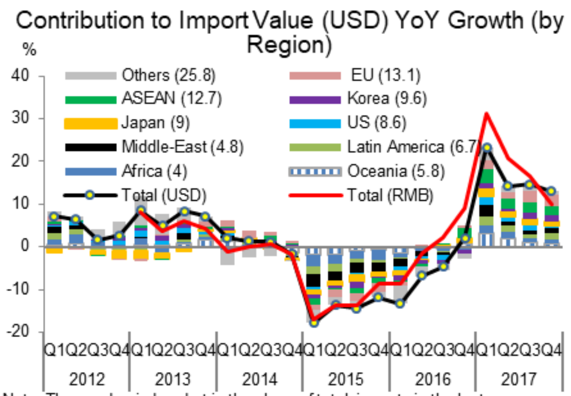
Source: SAFE, AMRO

Export growth remained strong due mostly to rising exports to the U.S. and EU.



Note: The number in bracket is the share of total exports in the last year.
Source: General Administration of Customs

Imports expanded further but the growth has moderated since early 2017.

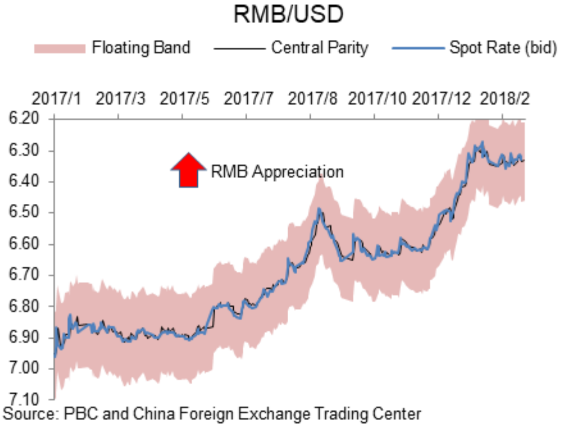


Note: The number in bracket is the share of total imports in the last year.
Source: General Administration of Customs

The trade imbalance in terms of value-added is smaller and is even smaller if services are taken into account

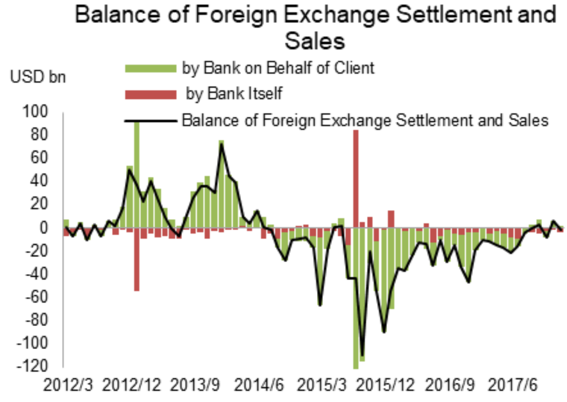
Note: The Trade Goods Balance (Value-added) is one third of headline trade goods balance in 2015. We assume that this percentage holds for all the years between 2005-2016.
Source: U.S. Census Bureau, Bureau of Economic Analysis, AMRO

The RMB exchange rate against the USD appreciated in June-August 2017 and January 2018 and the volatility has increased.



Source: PBC and China Foreign Exchange Trading Center

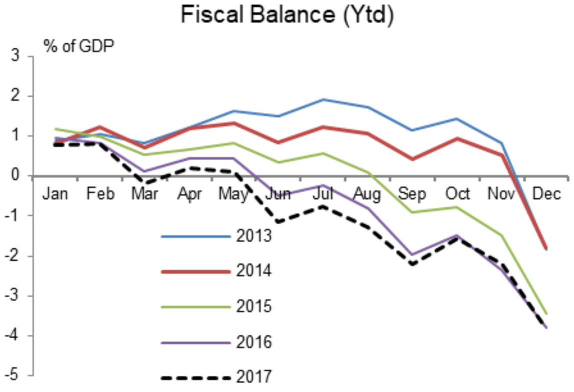
Capital outflow pressures have moderated.



Source: SAFE

Figure 3. Fiscal Position

The fiscal deficit in 2017 was same as that in 2016.

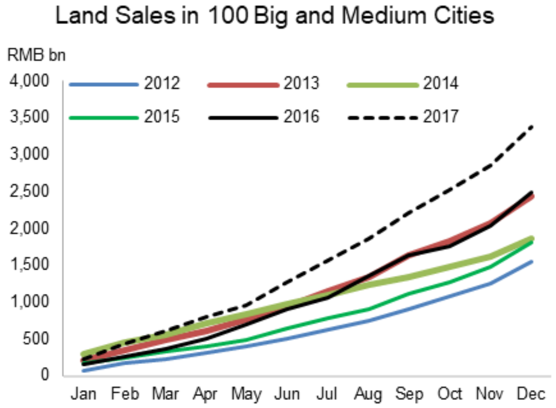


Source: CMOF, AMRO

The budget implementation has improved since 2014.

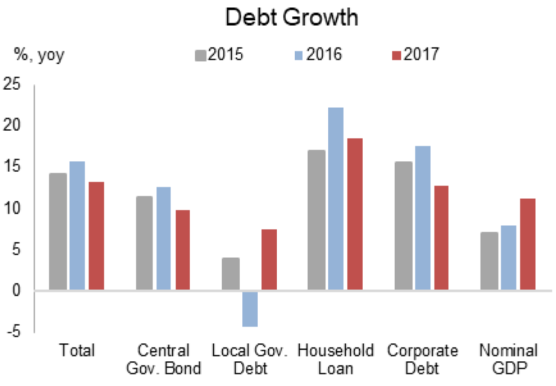
Source: AMRO, CMOF

Local governments' income from land sales rose further in 2017.



Source: Wind, AMRO

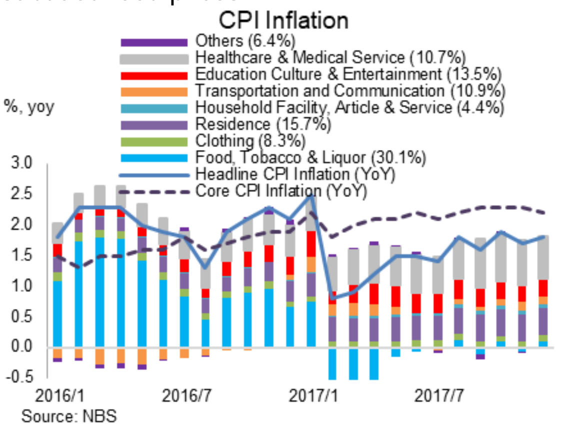
Partly due to increasing efforts to control debt, growth in overall debt in 2017 has moderated compared to 2016.



Source: NBS, PBC, CMOF, AMRO

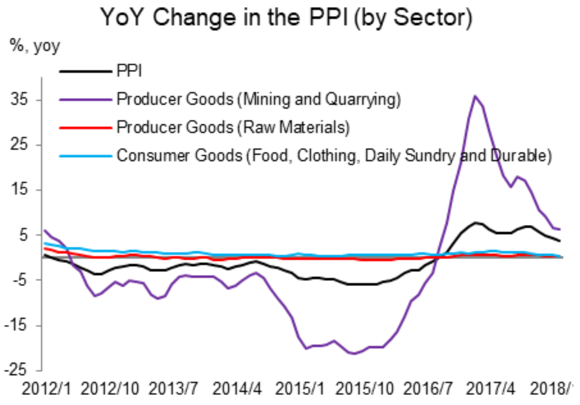
Figure 4. Price, Monetary Policy

CPI inflation has largely edged up since February 2017 but remained low on the back of subdued food prices.



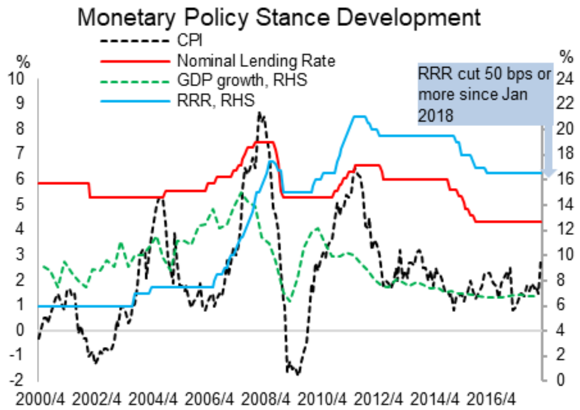
Source: NBS

After peaking at 7.8 percent in February, PPI inflation moderated further.



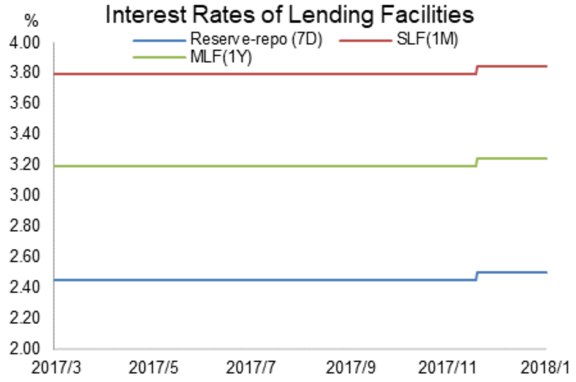
Source: NBS

The PBC announced to conduct targeted RRR cuts from January 2018.



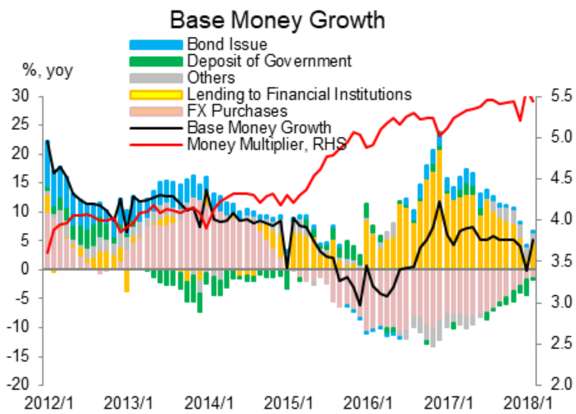
Source: PBC, NBS

The PBC raised reverse repo and MLF rates in response to the Fed's rate hike in December 2017 and other factors.



Source: Wind

The PBC continued to provide liquidity to financial institutions to support base money supply.



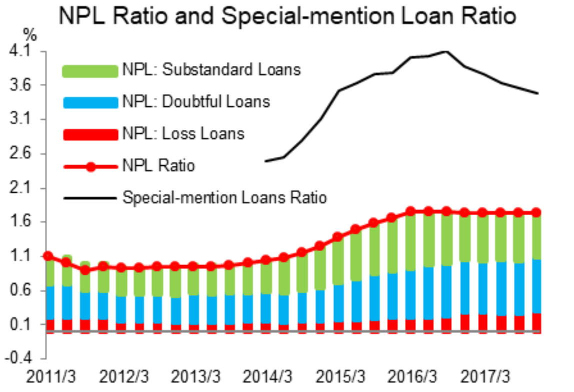
Source: PBC

The leverage levels in the corporate and financial sectors have started to decline.

Source: BIS, Wind, AMRO

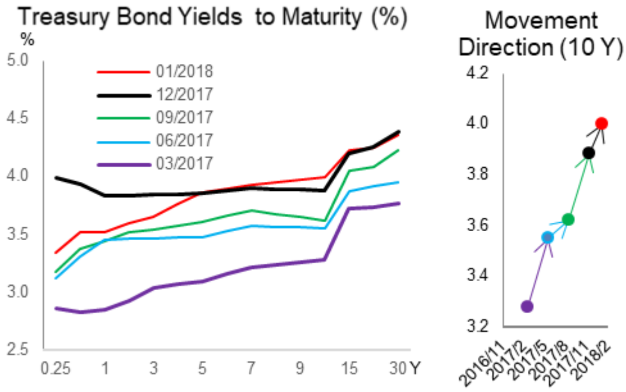
Figure 5. The Financial Markets and the Property Markets

NPL ratio has been flat while special mentioned loan (SML) ratio has declined compared to a few quarters ago.



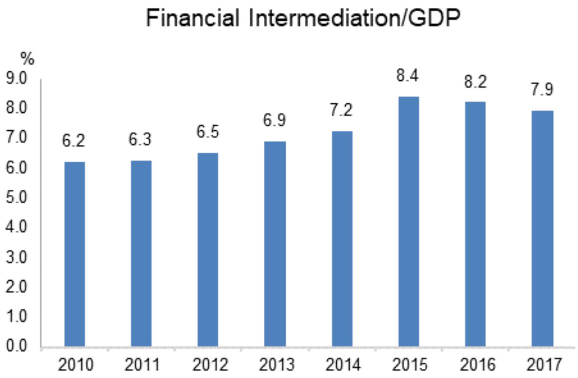
Source: China Banking Regulatory Commission

Bond yields rose amid tightening liquidity conditions.



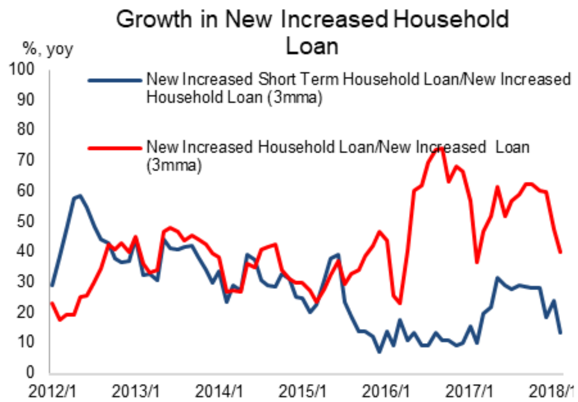
Source: National Interbank Funding Center, AMRO

Policy measures have curbed leverage in the financial sector and led to slowing growth in the financial sector.



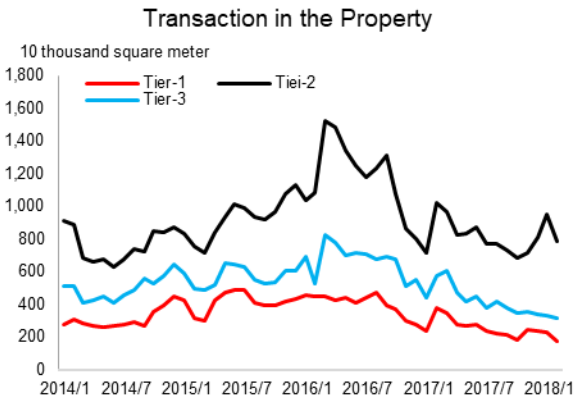
Source: NBS

In 2017, the ratio of the short-term household loans increased considerably.



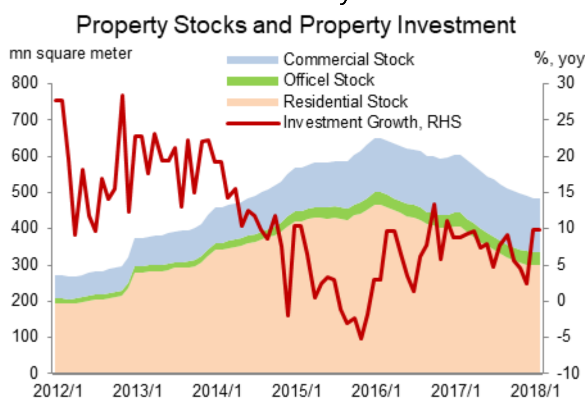
Source: PBC, AMRO

Property transactions have mainly moderated in Tier-1 cities.



Source: Wind, AMRO

Inventory has declined since 2016 and investment growth has moderated recently.



Source: NBS

2. Table of Selected Major Economic Indicators

	2013	2014	2015	2016	2017	2018	2019
						Projection	
Real Sector							
Nominal GDP (RMB bn)	59524	64397	68905	74359	82712	*90239*	*97954*
Nominal GDP (USD bn)	9686	10449	10964	11191	12250	*14100*	*15070*
Real GDP (% yoy)	7.8	7.3	6.9	6.7	6.9	*6.6*	*6.4*
Consumption (% yoy)	6.8	6.7	7.8	8.3	7.5	*8.1*	*7.8*
Gross Capital Formation (% yoy)	9.0	7.1	6.0	6.0	4.7	*4.7*	*4.6*
PMI (Mfg)	51.0	50.1	49.7	51.4	51.6		
PMI (non-Mfg)	54.6	54.1	54.4	54.5	55.0		
Labor Market							
Newly-hired Urban Workers (Person mn)	13.1	13.2	13.1	13.1	13.5	*13.0*	*13.0*
Average Registered Unemployment Rate: Urban, %)	4.1	4.1	4.0	4.0	*4.0*	*3.9*	*3.9*
Average Wages (RMB)	51483	56360	62029	67569	*74325.9*		
Growth in Average Wages (% yoy)	10.1	9.5	10.1	8.9	*10.0*		
External Sector							
Exports (% yoy, USD)	7.8	6.0	-2.6	-6.4	6.7	*5.0*	*4.0*
Imports (% yoy, USD)	7.3	0.7	-14.4	-5.4	15.9	*10.0*	*12.0*
Trade balance (USD bn)	261.4	380.1	601.7	547.1	438.0	*367.8*	*220.4*
Trade Balance (% of GDP)	2.7	3.6	5.5	4.9	3.6	*2.6*	*1.5*
Current Account Balance (USD bn)	148.2	236.0	304.2	196.4	*146.0*	*155.1*	*150.7*
Current Account (% of GDP)	1.5	2.3	2.8	1.8	*1.2*	*1.1*	*1.0*
Financial and Capital Balance (excl. Reserves, USD bn)	346.1	-51.4	-434.1	-417.3	82.4	*42.3*	*30.1*
Financial and Capital Balance (% of GDP)	3.6	-0.5	-4.0	-3.7	0.7	*0.3*	*0.2*
FDI (USD bn)	123.9	128.5	135.6	133.7	136.3		
ODI (USD bn)	107.8	123.1	145.7	196.1	…		
External Debt, Gross (USD bn)	863.2	1779.9	1383.0	1420.7	…		
Foreign Reserves (USD bn)	3821.3	3843.0	3330.4	3010.5	3139.9		
Exchange Rate (Against USD, Period Average)	6.15	6.16	6.28	6.64	6.75		
Money and Prices							
M2 (% yoy)	13.6	12.2	13.3	11.3	8.1	*8.0*	*7.5*
Aggregate Financing (% yoy)	17.5	14.3	12.6	12.8	12.0		
Total Loan (% yoy)	13.9	13.3	14.5	12.8	12.1		
Lending Rate (1y, Period End, %)	6.0	5.6	4.4	4.4	4.4		
CPI (Period Average, % yoy)	2.6	2.0	1.4	2.0	1.6	*2.0*	*1.8*
Core CPI (Period Average, % yoy)	1.7	1.6	1.5	1.6	2.2		
Producer Price Index (Period Average, % yoy)	-1.9	-1.9	-5.2	-1.4	6.3	*3.0*	*2.5*
Fiscal Sector							
Revenue (% yoy)	10.2	8.6	5.8	4.5	7.4	*6.5*	*6.3*
Expenditure (% yoy)	11.3	8.3	13.2	6.3	7.7	*7.0*	*6.0*
Revenue (% of GDP)	21.7	21.8	22.1	21.5	20.9	*20.4*	*19.9*
Expenditure (% of GDP)	23.6	23.6	25.5	25.2	24.6	*24.1*	*25.6*
Overall Balance (% of GDP)	-2.0	-2.1	-2.4	-2.9	-2.9	*-2.6*	*-2.7*
Central Government Debt (% of GDP)	14.8	15.0	15.8	16.1	16.3		
Financial Sector and Property Markets							
Shanghai Stock Exchange Composite Index	2116	3235	3539	3104	3307		
Shanghai Interbank Offered Rate, Overnight (%)	3.15	3.53	1.99	2.23	2.84		
10 Year Treasury Bond Yield (%)	3.86	4.15	3.36	2.87	3.61		
Banking Capital Adequacy Ratio (%)	12.2	13.2	13.5	13.3	13.7		
NPL Ratio (%)	1.00	1.25	1.67	1.74	1.74		
New Constructed Home Prices (Average, %, yoy)	5.9	2.6	-3.8	6.2	8.3		
Second-hand Home Prices (Average, %, yoy)	3.2	1.1	-2.8	5.3	6.9		

Note:
(i) The data is as of 26 January 2018
(ii) RMB external debt has been included since 2015

Sources: National Bureau of Statistics, Ministry of Finance, People's Bank of China, Ministry of Commerce, Ministry of Human Resources and Social Security, China Customs, China Banking Regulatory Commission, State Administration of Foreign Exchange, AMRO

3. Data Adequacy for Surveillance Purposes: A Preliminary Assessment

Criteria/Key Indicators for Surveillance	Data Availability[(i)]	Reporting Frequency/Timeliness[(ii)]	Data Quality[(iii)]	Consistency[(iv)]	Others, if Any[(v)]
National Accounts	Available	Quarterly GDP, monthly CPI and PPI, monthly industrial production, monthly fixed asset investment, monthly retail trade	China has implemented a new quarterly GDP accounting measurement since 2015	-	More real quarterly GDP data for expenditure sides is welcomed
Labor market	Available	Quarterly data for newly-hired workers and unemployment	-	-	There is room to improve accuracy
Balance of Payments (BOP) and External Position	Available	Quarterly BOP data released within 3 months after the quarter ends, monthly trade data within 3-4 weeks after the month ends.	Errors and omissions can sometimes be large.	-	Earlier release is welcomed
State Budget and Government/ External Debt	Available	Monthly fiscal data released within 3-4 weeks after the month ends. Quarterly foreign debt data released within 3 months after the quarter ends. Yearly government outstanding debt data released within 6 months after the year ends.	-	-	
Money Supply and Credit Growth	Available	Monthly data release within 2-4 weeks after the month ends	-	-	-
Financial Sector Soundness Indicators	Available	Quarterly data release within 3 months after the quarter ends.	-	-	Earlier release is welcomed
SOE Statistics	Fragmented data available	-	-	-	Earlier release of more detailed data is welcomed

Notes:

(i) Data availability refers to whether the official data are available for public access by any means.
(ii) Reporting frequency refers to the periodicity that the available data are published. Timeliness refers to how up-to-date the published data are relatively with the publication date.
(iii) Data quality refers to the accuracy and reliability of the available data given the data methodologies.
(iv) Consistency refers to both internal consistency within the data series itself and its horizontal consistency with other data series of either the same or different categories.
(v) Other criteria might also apply, if relevant. Examples include, but are not limited to, potential areas of improvement for data adequacy.
(vi) In October 2015, China announced it would adopt the IMF's Special Data Dissemination Standard (SDDS), which will help to improve macroeconomic data

Source: AMRO staff compilations. This preliminary assessment will form the "Supplementary Data Adequacy Assessment" in the EPRD Matrix.