AMRO Annual Consultation Report

China - 2018

The ASEAN+3 Macroeconomic Research Office (AMRO)

October 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 July 4 to 17, 2018 in Wenzhou, Hangzhou 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. Foo Suan Yong (Senior Expert), Mr. Tang Xinke (Researcher), Dr Tanyasorn Ekapirak (Researcher) and Ms. Phatsaphone Phandanouvong (Associate). 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. Foo Suan Yong, Mr. Tang Xinke, Dr Tanyasorn Ekapirak and Ms. Phatsaphone Phandanouvong; peer reviewed by Ms. Ng Chuin Hwei, Dr. Choi Jinho and Dr. Xianguo Huang and approved by Dr. Hoe Ee Khor.

3. The analysis in this Report is based on information available up to 19 October 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

1. **The Chinese economy continued its trend moderation in 2018, with robust growth in the first half and somewhat slower growth in the second half.** On the demand side, consumption continued to be the main driver of growth. Private investment, meanwhile, has increased, aided by continued tax breaks, higher producer prices as well as low-base effects. The contribution of net exports to growth (gross basis) turned negative in the first three quarters of the year, due mainly to strong imports and robust outbound tourism spending. Exports' contribution on a value-added basis remained significant and positive but continued to decline. On the supply side, the services sector and the new digital economy continued to grow robustly and contributed significantly to growth. The labor market has expanded steadily owing to the rising number of services enterprises.

2. **Going forward, Chinese economic growth is expected to moderate further amid structural adjustment, deleveraging and rising external risks.** We project that growth will moderate from 6.9 percent in 2017 to 6.6 and 6.2 percent in 2018 and 2019 respectively, taking into account the impact of the current trade conflict between China and the U.S. and the moderate size of the stimulus package in China. Risks to economic growth are tilted to the downside as trade conflicts with the U.S. could escalate further. In the worst case of the trade war (the U.S. imposing 25 percent tariff on all of China's products), China's GDP growth could moderate more sharply to around 5.8 percent in 2019.

3. **Inflation has generally been subdued.** CPI inflation in the first eight months of 2018 was at 2.0 percent. It is likely to increase slightly this year due to the depreciation of the RMB and the impact of the China-U.S. trade war on certain products such as soybean imports. PPI inflation has trended down from the high levels in 2017 but was still quite elevated at 4.0 percent on average in the first eight months of this year, supported by expanding industrial production and profits.

4. **U.S.-China trade war has become one of the major risks faced by the Chinese economy, putting downward pressures on confidence, exports, and growth.** Although foreign trade has continued to be strong and foreign reserves remain stable so far, the domestic stock market has sold off by 28 percent and the exchange rate has depreciated significantly. Based on a model simulation, we assess that the negative impact on China's GDP growth of the tariffs that have already been imposed by the US will be about 0.2 percentage point in the next few years. Moving forward, the trade war between the U.S. and China may escalate further, which could affect market sentiment and put more downward pressure on confidence, exports, investment and economic growth. In this case, GDP growth could be lower by as much as 0.6 percentage point over the base scenario. The pressure of capital outflows may also increase ahead if the conflict escalates further.

5. **Strengthened policy efforts on deleveraging have led to generally diminishing domestic risks to financial stability.** China's domestic risks in 2018 have declined compared to 2017, especially due to the deleveraging process in the financial industry. At the same time, the growth of corporate debt has begun to slow and the targets to reduce overcapacity in the heavy industries have been achieved. State-owned enterprise reform has proceeded with the number of loss-making SOE companies declining from 5563 in 2015 to 4641 in 2017.

6. **Notwithstanding the progress, some pockets of risks have also emerged.** First, although official government debt remains low and grows slowly, illicit borrowing and guarantees continue to happen in some areas. Second, although the level of household debt to GDP is still low, it has been rising rapidly with the lowest-income group being the most indebted. Third, credit risks for some small- and medium-sized commercial banks have increased. Fourth, some of P2P platforms have collapsed due to risky lending practices and a shortage of cheap funding amid the deleveraging in the financial sector.

7. **Against the above backdrop, macroeconomic policy has become more challenging with the urgent need to cope with the trade war and its impact on growth, on top of the efforts to maintain macroeconomic and financial stability, and pursue further reforms.**

8. **Policymakers should continue to focus on implementing policy measures to mitigate the impact of the trade war on the export sector and growth.** First, counter-cyclical fiscal measures can take the lead in buffering the impact on the economy. Second, the pace of financial deleveraging could be made more gradual so that banks can help provide more financial support to the economy. Third, enhanced efforts should be made to diversify the export markets, including through enhancing trade cooperation such as the Regional Comprehensive Economic Partnership (RCEP). Fourth, authorities could allow some further depreciation of the exchange rate in line with market forces to help counter the effect of higher tariffs on exports but a sharp depreciation should be avoided as that could destabilize market confidence. The most important response is to focus on stabilizing market confidence, reducing domestic vulnerabilities and supporting growth through further strengthening of supply-side and other reforms. Provided there is no further escalation, the impact of the trade war on the economy is likely to be limited, and will diminish over time as markets adjust to the new tariff regime.

9. **Apart from the urgent need for fiscal policy to address the trade war impact, it should continue to support structural adjustments.** Tax and spending measures to support the development of the new digital economy and SMEs are also essential for further developing new frontiers of businesses and increasing employment. Establishing a more comprehensive social safety net is also key to supporting consumption, addressing aging population, and mitigating income inequality. Reforming the fiscal relations between the central and local governments by increasing the share of local government revenue

and shifting certain spending to the central government will help reduce the burden of local governments, and the incentives to rely on off-balance sheet funding for their investment projects. The plans to shift social spending in low-income housing, social security and health care to the central government will help reduce the cost of risk pooling, facilitate the benefits for migrant workers, and ensure more equitable sharing of benefits across regions. Reforms to strengthen fiscal discipline is also crucial as a means to curb the government illegal debt.

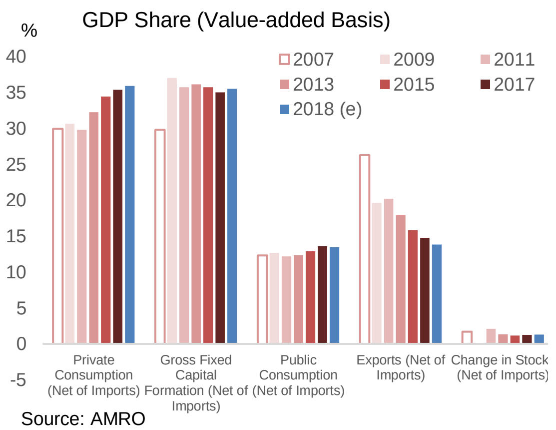
10. **Safeguarding macroeconomic and financial stability should continue to be a priority as it is a prerequisite for achieving a sustainable growth path and quality development.** Although policymakers could consider slowing the process in the face of a heightened external headwinds, further financial deleveraging efforts continue to be crucial for enhancing macroeconomic stability in the longer term. SOE reform, the key to cope with high corporate debt and pockets of vulnerable corporate sectors, should be further strengthened. The growth of household debt should be closely monitored and household borrowings should be subject to stringent credit standards. It is necessary to strengthen the oversight and coordination for regulating the fintech industry, in particular the P2P platform, to ensure that the platform develops into a sound alternative for borrowers and lenders. Rising property prices need to be closely monitored and macro-prudential measures should be tightened if they continue to rise too rapidly.

A. Recent Developments and Outlook

A.1 Real Sector Developments and Outlook

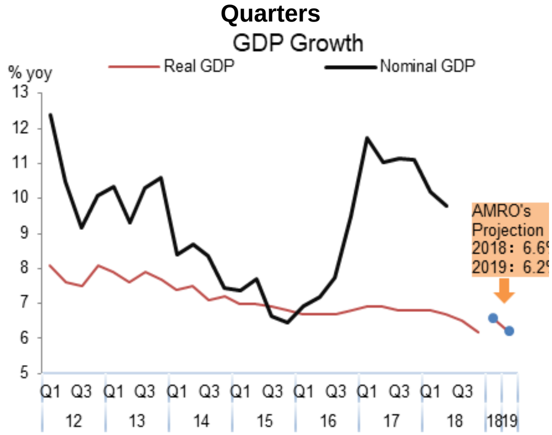
1. **In the first three quarters of 2018, economic growth remained stable.** On the demand side, consumption continued to be the main driver of growth. Private investment, meanwhile, has rebounded from last year, aided by continued tax breaks, higher producer prices as well as low-base effects. The contribution of net exports to growth (gross basis) turned negative in the first three quarters of the year, due mainly to strong imports and robust outbound tourism spending, while the share of net exports in GDP on a value-added basis continued to decline (Figure1). The impact of the trade conflict between China and the U.S. on exports has still been limited so far, although the pressure on China's economy is mounting. On the production side, growth in IT equipment production has continued to be robust. The services sector, especially the new economy-related activities, also grew rapidly (Please see the Selected Issue 1 on the new economy).

Figure 1. Consumption Drives Growth



Source: AMRO

Figure 2. Moderation of Growth in First Three Quarters



Source: NBS, AMRO

2. **The labor market has continued to expand steadily owing to the rising number of services enterprises.** With the government's increasing support for the setting up of new companies and the increase in tax and fee cuts for SMEs, the number of Chinese enterprises – especially in the service sector – has continued to increase. The number of new registrations reached 10 million in the first six months of 2018 or 100 percent higher than the number from just five years ago. Thanks to the increase in the number of enterprises, the number of new urban jobs has steadily increased in tandem.

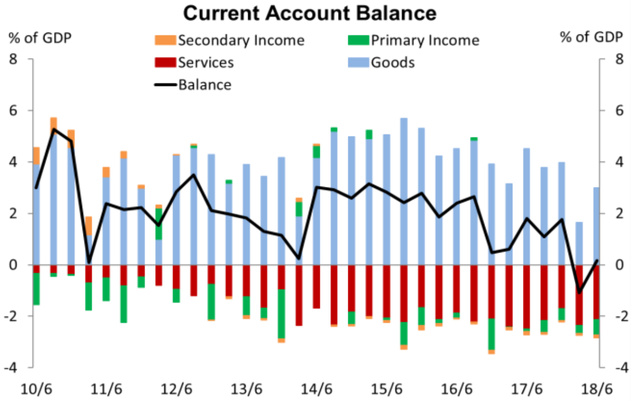
3. **Going forward, Chinese economic growth is expected to moderate amid structural adjustment, deleveraging and increasing external headwinds.** We project that growth will moderate from 6.9 percent in 2017 to 6.6 and 6.2 percent in 2018 and 2019 respectively (Figure 2), taking into account the impact of the trade conflict between China and the U.S. and the moderate size of the stimulus package in China. Risks to economic growth are tilted to the downside. Trade conflicts with the U.S. could escalate further, potentially causing a larger impact on the economy than in the baseline case above not only through slower exports but also through risk aversion in the financial and foreign exchange markets and slower investment. In the worst case of the trade war (the U.S. imposing 25 percent tariff

on all of China's products), China's GDP growth is expected to moderate to 5.8 percent in 2019.

A.2 External Sector

4. **Foreign trade has remained strong so far despite the escalation of trade tensions into a trade war.** Exports grew rapidly in the first eight months of 2018, but imports grew even faster on the back of strong consumption. China's goods trade surplus narrowed and is expected to trend downward in the future. Within services trade, outbound tourism has continued to grow further, contributing significantly to the rising structural services deficit. As a result of these factors, the current account registered a deficit (at 1.1 percent of GDP) for the first time since 2001 in the first quarter of 2018 (Figure 3), although it rebounded to surplus of 0.2 percent of GDP in the subsequent quarter. The downward trend of the current account is expected to continue on the back of increasing consumer goods imports and the widening structural services deficit.

Figure 3. First Deficit in the Current Account Since 2001 in Q1 2018

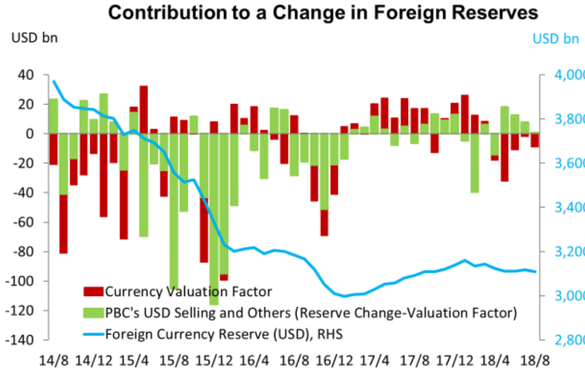


Source: SAFE, AMRO

5. **Capital flows have been normal and foreign reserves remain stable.** Despite the sell-off in the stock markets, the depreciation of the RMB, and worsening market sentiment owing to the trade tensions, capital outflows have remained relatively stable in contrast to the capital flight witnessed in 2015-2016. In fact, foreign investors have gradually increased exposure to Chinese bonds and equities in their portfolios, driven by the bond connections between the Mainland and Hong Kong SAR, China as well as MSCI's inclusion of Chinese A shares. Against this backdrop, foreign reserves have remained stable at around USD3.1 trillion over the past 12 months. (Figure 4).

Figure 4. Foreign Reserves Remain Stable

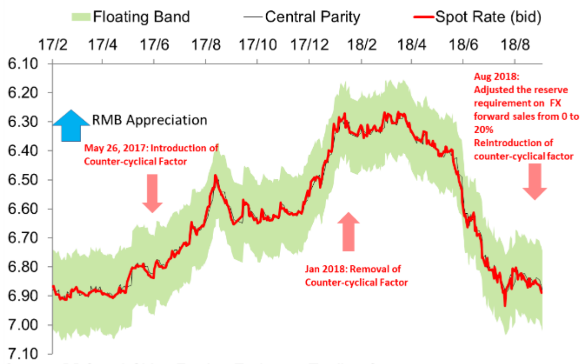
Contribution to a Change in Foreign Reserves



Source: PBC, AMRO staff calculations

Figure 5. The RMB Depreciated in Q2-Q3 2018

RMB/USD



Source: PBC and China Foreign Exchange Trading Center

6. **The RMB depreciated from late April to mid-August amid deteriorating sentiment triggered by the trade conflict with the U.S.** Between April 11 and October 10, 2018, the RMB depreciated by 9.5 percent against the USD and weakened against the Euro and several major currencies (Figure 5). According to the PBC, trade friction and rising volatility in the international currency market have resulted in pro-cyclical fluctuations in the foreign exchange market. To prevent financial risks and mitigate enterprises' pro-cyclical behavior, the PBC has adjusted the reserve requirement for financial institutions' FX forward sales from 0 to 20 percent, effective from 6 August 2018[1]. Since the beginning of August, a counter-cyclical factor has been reintroduced, aiming to mitigate the downward sentiment relating to the RMB.[2]

A.3 Fiscal Policy

7. **The fiscal deficit target of 2018 was lower than in 2019 but, amid increasing downward pressures on growth related to trade tension, the authorities have deployed additional measures to mitigate the impact.** The 2016-2017 fiscal deficit was equivalent to 2.9 percent of GDP, and the government work report in March this year proposed a deficit rate of 2.6 percent, lower than the target of 3.0 percent last year. At that time, the consideration in the 2018 government work report was to reduce the fiscal deficit, as the economy was stable in order to build up policy space for the future. The authorities have taken measures to further reduce the tax burden and fees in the corporate sector including for SMEs. They plan to cut another RMB65 billion in tax this year in addition to the initial goal of cutting taxes and fees by RMB1.1 trillion yuan (1.2 percent of GDP) in the year. Meanwhile, the authorities will also step up the issuance of special bonds for local governments to RMB1.35 trillion yuan this year from RMB800 billion in 2017 to ensure more tangible progress is made on ongoing infrastructure projects including railway and other transportation.

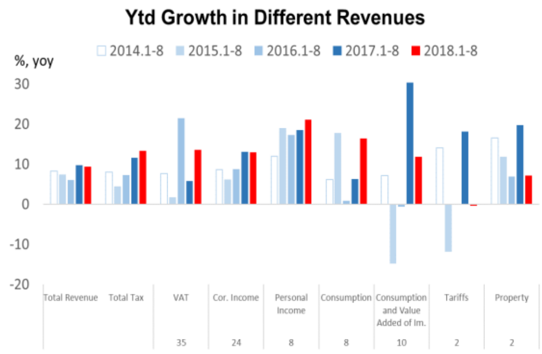
8. **Although so far fiscal revenue has grown robustly and general expenditure has moderated, it is expected that the fiscal deficit in 2018 will be above the target due to the additional measures to mitigate the trade war effect.** In the first eight months of 2018, total fiscal revenue grew by 9.4 percent yoy, almost the same as a year ago. Tax revenue, which accounted for 88 percent of total revenue, grew by as much as 13.4 percent yoy. In particular, growth in corporate income tax collections rose as a result of rising corporate incomes and profits have risen amid high PPI inflation. Personal income and consumption taxes grew more rapidly over the same period due to strong nominal wage growth (Figure 6). General government expenditure grew by 7 percent in the first eight months of 2018 – slowing from 13 percent on average in the previous two years – partly due to the authorities' intention to maintain a smaller deficit as well as high-base effects. Nonetheless, expenditure growth has been relatively higher for items related to the boosting of potential growth such as expenditure on science and technology and the strengthening of social safety nets (Figure 7). We project that fiscal deficit will

[1] On 15 October 2015, the PBC carried out the same operation when there was pro-cyclical behavior leading to RMB depreciation, and this measure was removed on 11 September 2017 when the RMB became stable against the USD.

[2] According to authorities, the RMB/USD central parity rate quoting banks have successfully adjusted the counter-cyclical factor to adequately hedge the pro-cyclical sentiments of RMB depreciation.

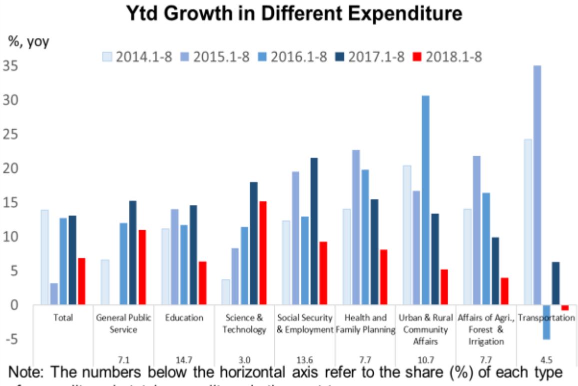
be around 2.9 percent as compared to 2.6 percent target due to expansionary fiscal policy to mitigate the impact of the trade war.

Figure 6. Robust Growth in Fiscal Revenue



Note: The numbers below the horizontal axis refer to the share (%) of each type of tax in total tax in the past two years
Source: CMOF, AMRO

Figure 7. Fiscal Expenditure has Focused on Structural Adjustment

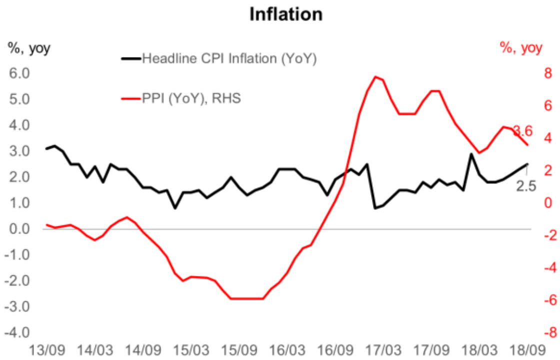


Note: The numbers below the horizontal axis refer to the share (%) of each type of expenditure in total expenditure in the past two years
Source: CMOF. AMRO

A.4 Inflation

9. **Since early 2018, CPI inflation has increased slightly while PPI inflation has largely moderated.** CPI inflation was 2.3 percent as of August 2018 while average CPI inflation in the first eight months of 2018 stood at 2.0 percent, slightly higher than the 1.5 percent witnessed in the same period in 2017 (Figure 8), with higher food prices as the main driver. Due to the depreciation of the RMB and the impact of the China-U.S. trade war on soybean imports[3], CPI inflation in China is likely to inch up further. We project that it will average 2.0 percent in 2018 and 2.2 percent in 2019. PPI inflation, meanwhile, has generally trended down since its peak in early 2017. That said, it has remained elevated, leading to expanding industrial production and supporting profits. Going forward, PPI inflation is likely to be stable. Downside risks to this outlook include slowing demand from the U.S. owing to the trade war, while upside risks stem from higher raw material prices due to RMB depreciation and rising oil prices.

Figure 8. CPI Inflation vis-à-vis PPI Inflation



Source: NBS, AMRO

A.5 Monetary Policy and Financial Regulation

10. **Monetary policy has focused on maintaining macro-financial stability and sufficient liquidity in the financial markets**. According to the PBC, it has continued to conduct a "prudent and neutral" monetary policy against the backdrop of increasing external uncertainties and the mandate to maintain financial stability. By cutting the Reserve Requirement (RRR) in financial institutions and deploying medium-term lending facility (MLF)

[3] There are three components of CPI related to soybean: soybean oil, dried beans and soy products, and poultry products, with weights of 0.9 percent, 0.5 percent and 6.7 percent.

and Pledged Supplementary Lending (PSL), the PBC has supplemented longer-term liquidity in the financial system. It has also increased financial support to small and micro enterprises, including increasing quotas for refinancing and rediscounting, and expanding collateral coverage for MLF and refinancing. To reduce the leverage in the financial system and strengthen financial regulation, the PBC has continued to strengthen the macro-prudential assessment (MPA) by incorporating interbank deposit receipts into the MPA and adjusting the MPA parameter settings to encourage banks to convert off-balance sheet assets into on-balance sheet assets. Taking into account these measures to maintain sufficient liquidity and support for small and micro enterprises, we are of the view that monetary policy has slightly tilted toward an easing stance although the overall policy remains neutral.

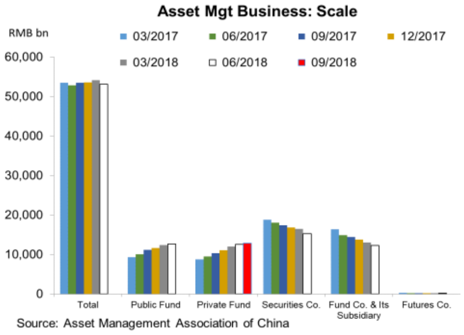
11. **Policy efforts to enhance regulation in the financial sector have been strengthened significantly.** To mitigate risks related to asset-management businesses, further progress has made in regulating shadow banking. On 27 April 2018, the authorities issued guidelines to restrict investment on non-standard credit assets, mitigate shadow banking and liquidity risks, and eliminate multi-layered nesting[4]. Due to these policy measures, the amount of leverage in the financial sector has declined gradually, with shadow banking activities shrinking. According to the authorities, overall leverage in China has stabilized and they will continue to enhance the soundness of the financial sector and pursue the deleveraging process in target areas, in addition to controlling the pace of the deleveraging process.

A.6 Financial and Property Markets

12. T**otal social financing (TSF) has grown at a slower pace compared to 2017 due to a slowing down in shadow banking activities while M2 growth has stabilized.** TSF growth has moderated since November 2017 and declined to 10.1 percent as of August 2018. The main driver of this moderation is the slowing down of shadow banking activities due to strengthening financial regulation. Meanwhile, growth in bank loan remains high and corporate bond issuance growth have started to increase as the market has come back to financing via these two conventional channels (Figure 9). M2 growth has stabilized over the past year. (Figure 10).

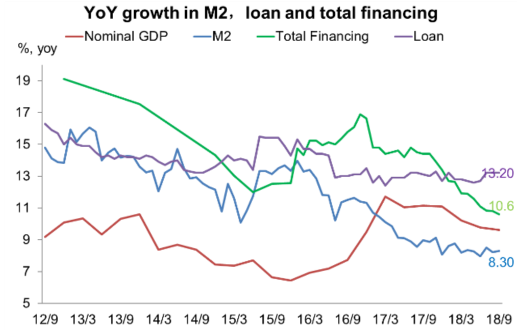
[4] The fund raised by one financial institution will be then invested by next financial institutions with different products, making the investment more complicated. For example, after the bank raises funds from customers, it invests the products issued by the trust company. The trust company then invests the fund in the financial products issued by the securities company and the securities company invest the products issued by other financial institutions.

Figure 9. Slowing TSF Growth Mainly Due to Slowing Shadow Banking Activities



Source: Asset Management Association of China

Figure 10. Moderate TSF Growth and Stable M2 Growth

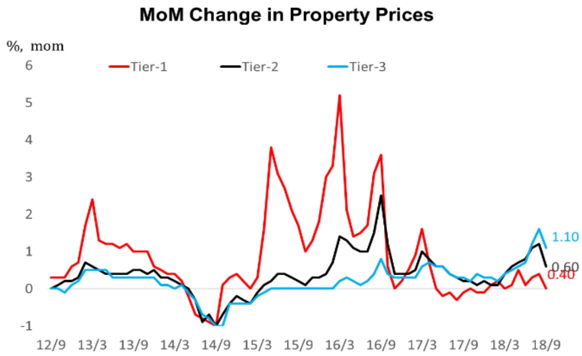


Source: PBC, AMRO

13. **The stock markets were sold off and prices fell mainly due to continued pressures from the trade war.** The stock markets showed a gradual upward trend until mid-January 2018, but since the end of January 2018, there has been a sell-off and prices have fallen sharply reflecting weak sentiments induced by the trade war. As of 9 October 2018, the Shanghai Composite Index fell by 22 percent, close to the lowest level in the previous round of correction (the end of January 2016).

14. **Property prices are increasing in part of small- and medium-sized cities, promoting the recent strengthening of macro-prudential measures**. Since March 2018, prices in the proper market in part of small and medium-sized cities have increased quite rapidly (Figure 11). In this situation, the authorities have actively taken measures to cool down price and mitigate possible risks-these include restrictions on purchases and a higher interest rate. Now, the excessive increase of property price has been curbed, the real estate market remained stable.

Figure 11. M-o-m change in Property Prices



Source: Wind

Authorities' Views

15. **Despite the trade war impact, there are many favorable factors to support stable economic growth moving forward.** The overall price situation is expected to be relatively stable. However, the structural and deep-seated problems that constrain economic growth still exist, and the task of accelerating the construction of a modern economic system and promoting high-quality development is arduous. Risks to growth are now tilted to the downside, especially from the trade war and to some extent from the deleveraging process. Nonetheless, favorable factors including continued urbanization, expanding services and high-end manufacturing sectors and rising consumption, will continue to support growth moving forward.

B. Risks, Vulnerabilities and Challenges

16. **Overall risks have risen as external risks have increased markedly compared with last year, eroding confidence and putting downward pressure on growth.** Table 1 demonstrates our views on the development of risks in China during 2016-2019. The trade war between the U.S. and China has escalated, and this risk may continue in the near- and medium-term, which will affect market sentiment and erode confidence, and put more downward pressure economic growth. The domestic stock markets have come under selling pressure, and although capital flows have remained normal so far, the outflows may increase sharply if the trade conflict escalates further and investors become more risk-averse.

17. **Overall risks to domestic macro and financial stability have diminished due to the success in reducing excess capacity and zombie SOEs and strengthened policy efforts on deleveraging, but some pockets of risks have emerged and the trade war is expected to pose increasing risks to the export sector and dampen growth.** China's overall domestic risks have declined compared to 2017, especially due to the deleveraging process in the financial industry. At the same time, corporate debt growth has begun to slow down and overcapacity problems have also been largely addressed. SOE reform has continued with the number of loss-making SOEs declining from 5563 in 2015 to 4641 in 2017. On the other hand, although local government debt remains low and grows slowly, illicit borrowing and guarantees continue to happen in some areas. And although the level of household debt to GDP is still low, it has been increasing rapidly and households with the heaviest debt burden are concentrated in the lowest income group. In the financial sector, while strengthened regulation and supervision have helped reduce financial leverage and overall financial sector risks, there are pockets of vulnerabilities. The NPLs of rural commercial banks are rising more significantly. Some types of financial institutions such as medium-sized banks and non-banking financial institutions, including P2P companies, are vulnerable to a shortage of liquidity. Recently, some large P2P lending companies have collapsed due to funding shortages caused by adverse market sentiments due to the defaults of some small P2P platforms which resulted in a market panic. Moving forward, the trade war is expected to pose increasing risks to the real sector as weaker confidence could affect private investment and growth.

Table 1. Development of Risks in China

Risks		Likelihood 2016	Likelihood 2017	Likelihood 2018	Likelihood 2019	Size of Impact in 2018-2019
Domestic	Economic slowdown					Medium
	High property prices					Medium
	Overcapacity					Small
	Slowing SOE reforms					Medium
	High corporate debt					Medium
	Rising local government debt					Small
	Rising household debt					Small
	Risks in the financial sector					Medium
External	Trade tensions					Medium
	Capital outflow pressures					Medium
	Tightening global financial conditions					Small
	Geopolitical risks					Medium
Overall Risks						

Low Likelihood	Low to Medium Likelihood	Medium Likelihood	High Likelihood

Source: AMRO

B.1 Trade War between the U.S. and China

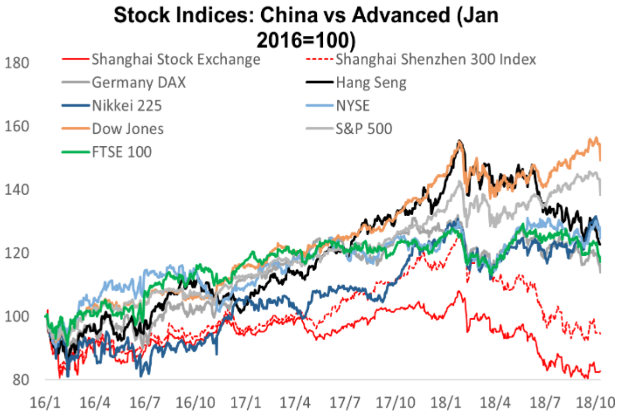
18. **U.S.-China trade war has become one of the major risks faced by the Chinese economy in the near term.** The trade conflicts that started in 2018 have escalated, leading to a successive rise in U.S. tariff on an increasing volume of imports from China and retaliatory actions by China by imposing tariffs on imports from the U.S. in Q3 2018.[5] The U.S. is China's largest export market and purchases 18 percent of Chinese exports. Although China's exports to the U.S. are equivalent to only 3.5 percent of China's GDP, the trade war poses a significant risk as, on top of the direct impact on the export sector, 1) it could damage confidence and cause a downward spiral in exports, investment and growth and 2) it may cause the exchange rate to depreciate sharply and lead to large capital outflows.

19. **So far, the impact of the trade war on China has been felt mainly in the stock market and forex market.** Reflecting the U.S.-China trade war, financial market sentiment, especially the stock market in China has been badly affected (Figure 12). The market concern

[5] On 6 July and 23 August 2018, the U.S. and China imposed a 25 percent tariff on each other's exports with a value of USD50 billion. On 24 September, the U.S. imposed 10 percent tariffs on USD200 billion in Chinese goods and vowed to increase the rate in January to 25 percent. China retaliated with tariff action against USD60 billion-worth of investments of U.S. goods. In a worse case scenario, all of China's exports to the U.S. could be slapped with additional tariffs.

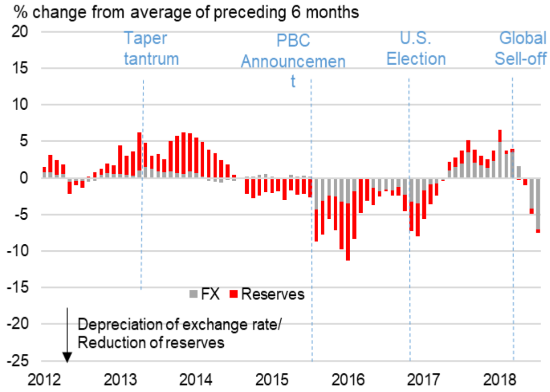
is that the decline in exports will lead to a slowdown in the Chinese economy and a depreciation of the RMB. Meanwhile, the exchange rate market pressure (EMPI) index shows a significant rise in FX depreciation pressure this year, although this pressure is still lower than during the large capital outflows episode in 2016 (Figure 13).[6] In addition, some leading indicators, such as new export orders, have started to shrink and the confidence of bankers and entrepreneurs has been dented.

Figure 12. China's Stock Market Negatively Affected by the Trade War



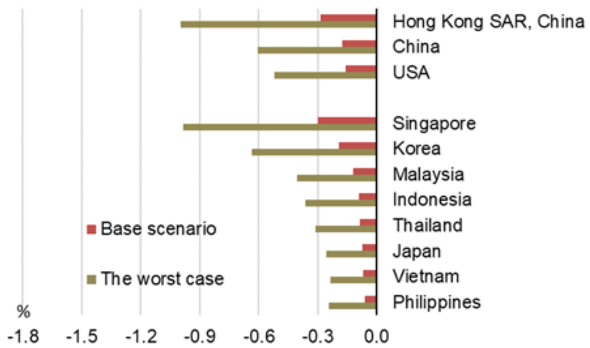
Source: Shanghai and Shenzhen Stock Exchanges, AMRO

Figure 13. Exchange Market Pressure Index (EMPI) Increasing Mainly Driven by RMB Depreciation



Source: AMRO

Figure 14. All Related Economies Negatively Impacted in the Short Run Without RMB Depreciation



Source: AMRO

20. **Our model simulations show that China, U.S. and all related regional economies will be negatively impacted in the short term due to the tariff effect.** We employ models developed by Oxford Economics for sensitivity analysis and consider a baseline scenario[7] and a worst-case scenario[8] to study their respective impacts on China, the U.S. and other regional economies including Hong Kong SAR, China. Higher tariffs will reduce world trade, in particular in this region; and to a certain extent, it will discourage investment too especially in China. In addition to China, the economies of Hong Kong SAR, China, Singapore, Korea and Malaysia are most vulnerable to higher tariffs (Figure 14) due to their close linkages to the Chinese economy.[9] In

[6] It also reveals that in 2018 the authorities have resorted to allowing the RMB to depreciate as a response rather than using FX intervention (which would result in foreign reserve depletion) to deal with the pressure.
[7] The U.S. imposes a 25 percent higher tariff on USD50 billion of Chinese exports, and a 10 percent higher tariff on USD200 billion of Chinese exports. China imposes a 25 percent higher tariff on USD50 billion of U.S. exports, and a 10 percent higher tariff on USD60 billion of U.S. exports.
[8] The U.S. imposes a 25 percent higher tariff on all Chinese exports. China imposes a 25 percent higher tariff on all U.S. exports.
[9] The effect on Vietnam is expected to be significantly higher than what the model suggests as Vietnam's exports to China jumped significantly in the recent years.

2020, China's GDP will be 0.2 percent lower in the baseline scenario and 0.6 percent lower in the worst-case scenario.[10]

Authorities' Views

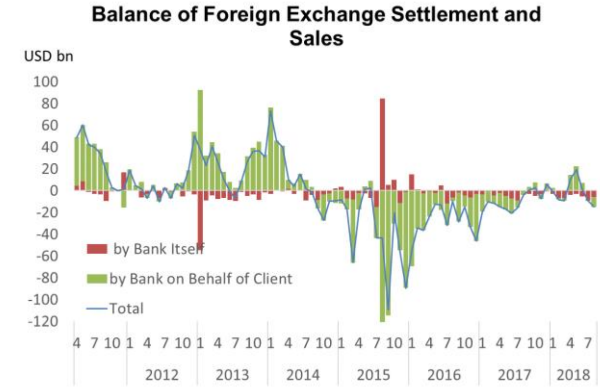
21. **The authorities were confident that they could mitigate the impact of an intensified trade war with the U.S.** They viewed that, apart from exports, the U.S. tariffs on Chinese exports to the U.S. may have some direct impact on China's industrial production, employment, and prices. It may also have some further indirect effects on market expectations and supply chain adjustments. However, the overall impact is manageable. First, they pointed out that, since many of China's exports include imported parts, the actual impact on China will be smaller on a value-added basis. Second, although the export sector is important, the economy has increasingly become more reliant on the domestic sector. Third, China has significant room for policy measures to mitigate the impact. It would also do so by providing a more level of playing field for foreign investment, which will help mitigate the short-term impact as well as support long-term growth.

B.2 Capital Outflow Pressure

22. **Despite weakening market confidence due to the trade war and significant exchange rate depreciation, capital outflows have been kept in check by capital flows management measures.** The capital flow situation now is different from that during 2015-2016. During 2015 and 2016, with the depreciation of the RMB and increased risks in the financial sector and the economy at large, capital outflow pressure in China increased sharply and led to the largest episode of capital outflows, with foreign exchange reserves falling by USD1 trillion. In the current environment, although market sentiment has been greatly dented by the escalating trade war and the depreciation of the RMB, capital flows have remained normal (Figure 15) reflecting the effectiveness of capital flows management measures. These include tighter enforcement of measures on outbound portfolio investment. At the same time, with the further opening of China's bond market and the MSCI's and FTSE's inclusion of China's A shares, foreign investors have increased their investments in China (Figure 16). The tightening global financial conditions have not impacted China. That said, a further escalation of the trade conflict may weaken significantly China's exports and affect economic growth prospects, leading to greater risk aversion and increase FX and capital outflow pressures. Although capital flows management measures have been effective in preventing large capital outflows and the flexible exchange rate can help to absorb the shock, a sharp fall in the RMB as well as further tightening global financial conditions could destabilize market confidence.

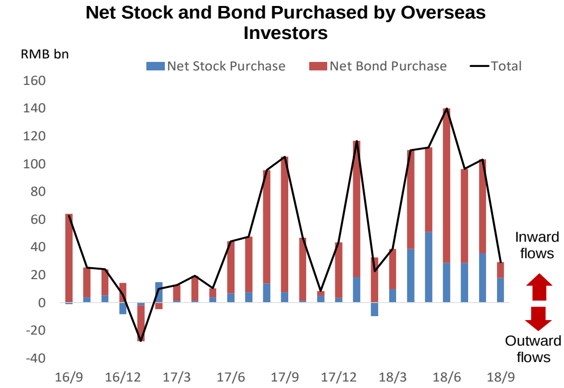
[10] However, when taking into account the effect of RMB depreciation driven by negative market sentiments, the impact on China's growth will become smaller, while the impact on GDP growth in the U.S. and Japan will become somewhat larger.

Figure 15. Capital Outflows Still in Control



Source: SAFE

Figure 16. Increase in Foreign Investor Participation in China with the Further Opening of the Stock And Bond Markets



Source: HKEx

Authorities' Views

23. **Capital flows situation is under control despite the adverse impact of the trade war on market sentiment and the exchange rate.** Although volatility in the international financial markets has risen considerably, the authorities assessed that cross-border capital flows into and out of China have remained balanced. The authorities will continue to monitor capital flows development closely. A stable economy, effective capital flow management measures, and a flexible exchange rate supported by better management and improved policy communication, will help to mitigate capital flow fluctuations and avoid episodes of large capital outflows. When proceeding with steps to further liberalize the capital account, both domestic and external situations will be carefully taken into account.

B.3 Potential Fiscal Burden

24. **Local Government Financing Vehicles (LGFVs) continue to pose a significant potential fiscal burden.** Local government debt has declined since 2014 due to the strengthened efforts on local government debt and the debt-to-swap program. However, LGFV liabilities have continued to rise. This is partly because there are new kinds of illicit borrowing and guarantees incurred by local governments or borrowed by government financing platforms and agencies, which are concentrated in areas such as shanty town rebuilding financing, payment obligations for PPPs, and government purchases. Meanwhile, progress with respect to the transformation of LGFVs into market-oriented entities has been slow and the profitability and debt repayment capacity of some LGFVs remains low. LGFV liabilities likely continue to be the potential fiscal burden given that local governments are the largest shareholders of LGFVs and provide large amounts of financing or subsidies to the LGFVs.

25. **Government potential fiscal burdens have become large in some areas.** The government potential fiscal burden-to-official debt ratio is high in some regions. Among different levels of government, government potential fiscal burdens are highest at the county level. Local governments with higher potential fiscal burden and slowing revenue may face an increasing debt service burden and the possibility of defaults may increase.

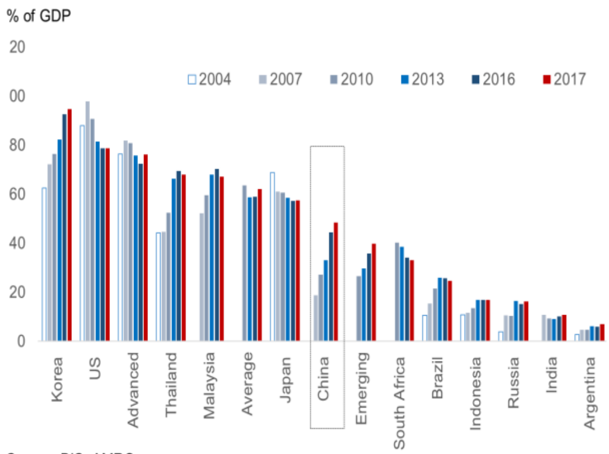
Authorities' Views

26. **The authorities acknowledged that illicit debt had risen quickly and, therefore, they have focused on identifying and addressing them.** The increase has been partly because some local governments continue to violate the law and generate new illicit debt. The authorities highlighted that provincial governments bear the overall responsibility to resolve illicit debts. They also highlighted that they will timely address all the illicit debts once they are identified.

B.4 Rising Household Debt

27. **Household debt has been growing rapidly in the past few years, although the level is still relatively low compared to other countries.** As shown in Selected Issue 1 "The Development and Implications of Chinese Household Debt," household debt stood at 47 percent of GDP (one-third of corporate debt) and accounted for 21 percent of China's total debt in 2017. However, household debt has been growing the fastest, especially since 2016. In 2018, household debt is expected to grow by 17 percent, with the ratio of household debt-to-GDP rising to 52 percent in 2018 (Figure S2.1 in Selected Issue 2). Compared to several other countries, China's household debt-to-GDP ratio is relatively low, but its growth rate is much higher (Figure 17). The fast increase in household debt in China is mainly driven by the growing mortgage loans and consumer loans.

Figure 17. Household Debt as % of GDP by Economies

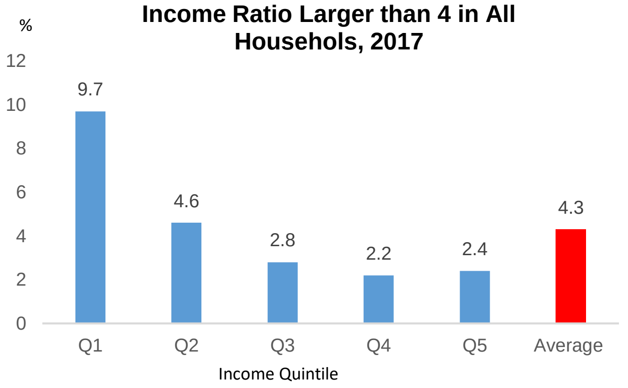


Source: BIS. AMRO

28. **The household debt burden is rising but the level is still much lower than in most other countries.** Household debt to disposable income has been rising quickly from 59 percent in 2014 to 80 percent in 2017 and it is expected to increase to 86 percent in 2018 as debt is expected to continue to rise faster than disposable income. Nevertheless, this level is still low compared with most countries. Meanwhile, interest payments to disposable income have also risen since 2016, from 3.8 percent to 4.9 percent in 2018 (Figure S2.5 in Selected Issue 2).

29. **Households with the heavy debt burden are concentrated in the lowest income group.** According to the 2017 credit report for China's wage-earning households released by Southwest China University, among the five income groups, the households with debt/income ratio larger than 4, accounted for as much as 9.7 percent of those in the lowest income group (Quintile1: 0-20 percent) (Figure 18). The lowest income group accounts for 44.7 percent of all households with debt/income ratio exceeding 4.

Figure 18. Share of Households with Debt/ Income Ratio Larger than 4 in All Housholds, 2017

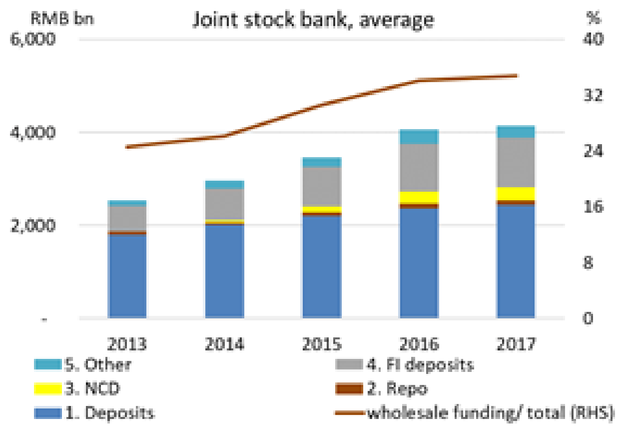


Source: Southwest China University of Finance and Economics China Family Finance Research and Research Center，2017

B.5 Financial Sector Risks

30. **Overall risks in the financial sector are manageable, despite some weak spots among small- and medium-sized banks.** In recent years, medium-sized banks' business and asset-liability structure have become more complex. This is largely due to shadow banking products, whose outstanding amount is still large but has declined considerably for some medium-size banks. The complexity of products has increased the linkages between financial institutions and made the contagion effect of banks' liquidity risk more significant. In terms of credit risk, banks' NPL ratios may increase due to a moderation in economic growth and a more stringent NPL classification standard, and small banks are particularly susceptible.

Figure 19. Joint Stock Banks' Liability



Source: Bankscope, Wind, AMRO staff calculations

31. **Credit risks for some small- and medium-sized commercial banks have increased.** As shown in Selected issue 3 "Liquidity risk of medium-sized banks", based on a quantitative assessment of 186 banks of various sizes, liquidity profiles of medium-sized banks in China, as measured by Net Stable Funding ratio, have declined since 2013 as a result of greater reliance on short-term wholesale funds and loan-like shadow banking products (Figure 19). In addition, as shown in Selected issue 4 "Credit Risks Faced by Small Rural Commercial Banks", due to a weak borrower profile and weak corporate governance, the overall NPL ratio of rural commercial banks has been increasing rapidly, and some of them are undercapitalized and need to raise capital. As coordinated policy efforts have been effective since 2016, these risks are assessed to be non-systemic:(i) banks have been enhancing their liquidity risk profiles since 2016; (ii) the liquidity in the banking system is abundant, as reflected in the low

inter-bank borrowing rates, which reduces the likelihood of liquidity risk events, and allow banks to further improve liquidity profiles in an orderly manner; (iii) high credit risk is concentrated in some small banks, which have limited impact on the rest of banking sector; (iv) banks with higher liquidity risks and banks with high credit risks fall into different groups, which limits the interaction between credit and liquidity risk. However, if the economy slows, compared with other types of banks, small rural commercial banks may still face higher credit risks and medium-sized banks may encounter higher liquidity risks. This is because the former's loan portfolios are riskier, whereas the latter's reliance on funding from the wholesale market is more risky.

32. **A number of P2P platforms have gone bankrupt in H1 2018 due to risky lending practices in the past few years and a shortage of funding amid rising stress in the sector in recent quarters.** While many of the P2P firms play a positive role in providing crucial financing to individuals and businesses, a significant number of firms had been engaging in risky lending practices and a handful of them were Ponzi schemes. Due to the credit risk accumulated in previous years and a shortage of non-bank sector liquidity in H1 2018, many P2P firms were forced to shut down in Q3 2018, resulting in market panic, and making the remaining P2P firms vulnerable to a withdrawal of funding and malicious default of borrowers. The impact on the financial system is limited due to the relatively small size of P2P lending. According to the National Internet Financing Association (NIFA), the outstanding loan balance of the 103 largest P2P firms was RMB 656 billion in July 2018, which is very small compared to China's GDP and financial sector's total assets. Moreover, the interlinkage between P2P firms and the rest of financial sector is also limited. However, the social impact can be large as some of P2P firms' investors are not sophisticated investors, and some are low- and middle-income individuals. Regulations of these platforms have tightened since 2018. In particular, P2P companies must now comply with a tougher disclosure requirements and bank custodianship of investor fund. Concerned that the risk may spread further, regulators are now also allowing the distressed asset managers to help to resolve the NPLs of P2P firms.

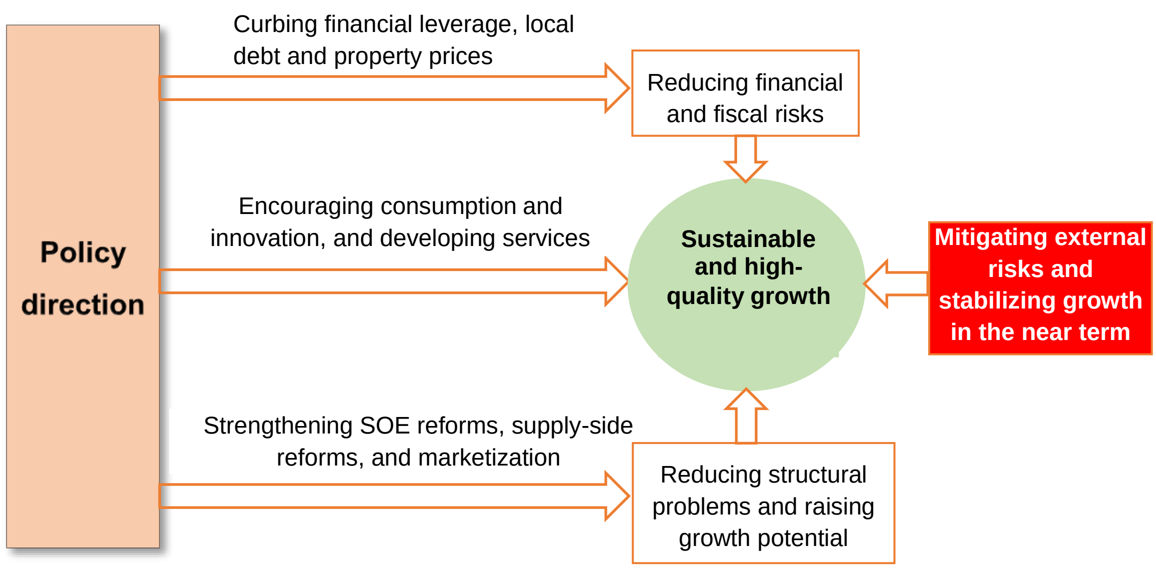
Authorities' Views

33. **The overall risks to China's financial system have diminished due to strengthened regulation, but the situation is still complicated and challenging, and bouts of risk events may still emerge moving forward.** It is a top policy priority to focus on the prevention and resolution of various financial sector risks. For a number of financial institutions, internal controls need to be improved further. While China's financial institutions have made great progress in their governance, there are still some deficiencies in some areas, especially small, medium-sized banks and also insurance institutions, which continued to be weaker. Therefore, the key to further reform in the banking system still lies in strengthening the corporate governance. The authorities also intend to further harmonize the regulatory standards for asset management products and rectify shadow bank activities in order to cut regulatory arbitrage activities, enable the "see-through" risk management practice for banking activities and investment products, and let the financial institutions better serve the real economy.

C. Policy Discussion

34. **Macroeconomic policy has become more challenging with the urgent need to cope with the trade war and its impact on growth on top of the efforts to maintain macro and financial stability, and pursue further reforms** (Figure 20). In the 2017 report, we highlighted that mitigating macroeconomic and financial risks and pursuing reforms ought to be the two policy priorities. However, the U.S.-China trade conflicts have escalated into a full-blown trade war and have significantly impacted the financial and FX markets and beginning to impact the exports sector and on growth. This requires the government to shift the short-term policy focus to stabilizing growth.

Figure 20. Current Policy Challenges



Source: AMRO

C.1 Finding Solutions to and Mitigating the Impact of the Trade War

35. **Policymakers should continue to focus on implementing policy measures to mitigate the impact of the trade war on the export sector and growth.** The government could consider the following policies should the impact increase significantly. First, counter-cyclical fiscal measures can take the lead in buffering the impact on the economy. The authorities could consider deploying one-off measures in the form of additional reduction in tax and administrative fees to support consumption and business activities. In our view, the recent policy to raise the threshold of personal income tax exemption for individuals is helpful to boost consumption. The government could assist corporates that are most affected by the trade war, in restructuring and increasing their efficiency through tax reduction for expenses on R&D, investments to improve productivity, and reskilling of workers. Second, while financial deleveraging should continue, the pace could be more gradual to ensure that banks have

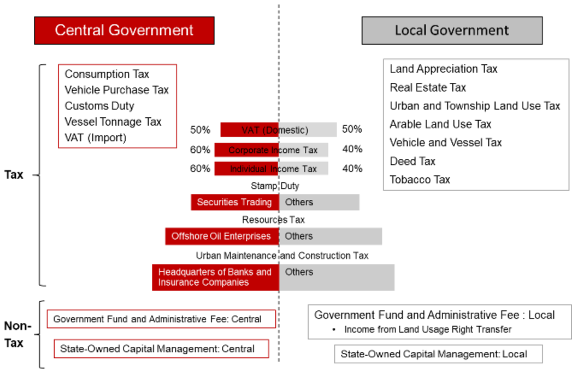
sufficient liquidity to provide financial support to the firms in the real sector, particularly those firms producing for exports. Third, the authorities should assist exporters to find new trading opportunities and further diversify the export markets. In particular, the government could give priority to working with other East Asian countries to reach an agreement on the Regional Comprehensive Economic Partnership (RCEP) and also other free trade agreements, with the aim of increasing the share of exports to non-U.S. markets. Fourth, while monetary easing and exchange rate depreciation can help counter the effect of increasing tariffs on exports, a sharp depreciation should be avoided as that could destabilize confidence. More importantly, we are of the view that the most important thing is to focus on stabilizing expectations, reducing domestic vulnerabilities and supporting economic growth through a further strengthening supply-side and other reforms. Provided there is no further escalation, the impact of the trade war on the economy is likely to be limited, and will diminish over time as markets adjust to the new tariff regime.

C.2 Fiscal Policy

36. **Apart from the urgent need for fiscal policy to address the trade war impact, it should continue to support structural adjustments.** Fiscal policy can play a major role in supporting structural reforms to achieve better quality growth in the future. Fiscal support for innovation and R&D and education should also continue to be priority areas. Tax and spending measures to support the development of the new digital economy and SMEs are also essential for further developing new frontiers of businesses and increasing employment. So far, progress has been made in reducing taxes 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 investment returns. In particular, the process of scrutinizing approvals for projects could be further streamlined. Establishing a more comprehensive social safety net is also key. Over the medium- and long-term, it will support consumption and the new economy, help address the needs of the aging population, and mitigate income inequality and regional disparities (Selected issue 5: Regional Disparities in China).

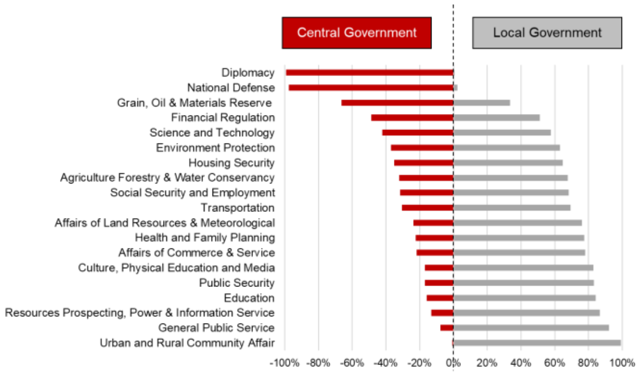
37. **AMRO supports the plan to reform the fiscal relations between central and local governments to achieve a better distribution of revenue share and expenditure assignments.** Figures 21 and 22 show that, while revenue shares do not differ significantly between the central and local governments, the local governments have a significantly higher role in spending. The measures to spend more on low-income housing, social security and health care by the central government is an appropriate policy move that will help reduce the financial burden of the local governments and their reliance on off-balance sheet funding for their projects. The expenditure assignment reform will help reduce the cost of risk pooling, facilitate the benefits for migrant workers, and ensure more equalized benefits across regions. The proposed property tax, which is being drafted by the Standing Committee of the NPC, will also provide new sources of revenue for local governments and mitigate income inequality.

Figure 21. Fiscal Revenue Shares Between Central and Local Governments



Source: CMOF

Figure 22. Fiscal Expenditure Shares Between Central and Local Governments



Note: the calculation was based on available data in 2014/15
Source: CEIC

38. **Reforms to strengthen fiscal discipline are also crucial as a means to curb the government illegal debt**. Local governments need to prioritize infrastructure projects and avoid unproductive projects. Government's liabilities should be managed well to avoid the new government illegal debt.

Authorities' Views

39. **Fiscal policy will play a greater role in expanding domestic demand and in structural adjustment.** Fiscal policy will be adjusted and fine-tuned according to changing economic situations to serve the real economy more effectively. Tax and fee reduction will be further pursued to reduce the burden on enterprises and improve the business environment. Policy priorities in the near future are the implementation of reforms to improve revenue allocation and expenditure responsibilities between central and local governments, implementation of budget management, and the improvement of SOE capital management. At the same time, the authorities will further strengthen local government debt management and address local government debt risk. The authorities highlighted that it will resolutely curb government illegal debt, improve the operation of government investment funds, the management of PPPs, and government-sponsored investment, and prohibit all kinds of illicit guarantees.

C.3 Monetary, Exchange Rate and Financial Sector Policies

40. **Some monetary policy easing is appropriate at this juncture given heightened external risks and increasing headwinds to domestic economic growth.** Monetary policy and the Macro-prudential Assessment (MPA) Framework were supportive of the deleveraging process in the financial sector in 2016-2017. Since 2018, signs of moderate easing have been observed against the backdrop of rising external headwinds. However, given the rising interest rates in the U.S., the pressures on the RMB and the high levels of debt in China, room for monetary policy to support growth and mitigate adverse shocks from the ongoing trade war is limited. If the escalating trade war leads to significant pressure on growth, the authorities could

consider fine-tuning the pace of financial deleveraging and further reducing RRR to support credit extension and maintain market stability.

41. **Exchange rate flexibility can act as a shock absorber but a large and continued RMB depreciation, driven mainly by market sentiment, should be avoided.** The flexibility of the RMB exchange rate and its management have been enhanced. However, a large RMB depreciation should be avoided as it could destabilize market expectations, leading to heightened risk aversion, large capital outflow, and turbulence in regional financial markets. In this regard, we support the reintroduction of the counter-cyclical adjustment factor as well as the imposition of reserve requirement on financial institutions' FX swap sales in August to prevent a sharp exchange rate depreciation due to market sentiment. Considering that the trade war may intensify further and increase pressure on the exchange rate, it is our view that the authorities should resort to capital flow management measures if pressure on capital outflows were to intensify.

42. **There has been significant progress in the area of financial regulation but further coordination efforts are needed to mitigate risks in the fintech industry.** The Financial Stability and Development Committee under the State Council, which was set up last year, has played a key role in coordinating financial sector policy and reform. The establishment of the China Banking and Insurance Regulatory Commission (CBIRC) has led to better coordination in banking and insurance regulation and supervision. Regulatory authorities have also jointly issued rules on asset management businesses to simplify the structures of shadow banking activities including Wealth Management Products (WMPs). This will enable the application of the "see-through" principle in risk management for investors,[11] financial institutions and regulators, which will enable them to better understand the underlying risks of financial products. The continued strengthening of coordination between various regulatory bodies is welcomed. However, it is necessary to strengthen their oversight and coordination in regulating the fintech industry, particularly the P2P platform, to ensure that the P2P platform will become a sound alternative for borrowers and lenders moving forward.

Authorities' Views

43. **In general, monetary policy has played a critical role in maintaining growth and stability.** The authorities viewed that liquidity in the banking system has remained adequate and stable. Money, credit and total social financing grew at a slower and more appropriate pace, while the average market interest rate has declined. Whereas policy to deleverage the financial sector will continue, a "prudent and neutral monetary policy" will ensure sufficient money supply and maintain stability in the financial markets. The monetary policy will be adjusted and fine-tuned in response to changes in the economy, and it will support supply-side structural reforms and high-quality development. The authorities will improve the regulatory framework consisting of monetary policy and macro-prudential policy, deepen the interest rate and enhance the flexibility of the exchange rate, and gradually expand the opening up of the finance sector. The authorities' priority is to avoid the emergence of systemic

[11] This means the requirements for financial institutions to show underlying assets behind different layers of their investment products that they issue.

financial risks in China. They will also identify risks related to P2P lending, address them and further strengthen regulations.

C.4 Household and Corporate Debt

44. **The growth of household debt should be closely monitored and household borrowing should be subject to stringent credit standards.** Household debt will continue to be the biggest contributor to the total level of debt in China moving forward. Hence, the growth of household debt should be closely monitored, although the level is still relatively low compared with the international peers, and there is room for it to grow. Even though the overall debt burden is not high and repayment capacity is generally not a problem, more stringent credit standards should be in place when issuing household loans, to ensure that the borrowers have the capacity to repay the loans. The focus should be on households with low repayment capacity, especially those in the low-income group. The authorities should also further regulate and monitor the use of personal loans, and strictly prohibit households from using personal loans to finance home purchase as it will create a maturity mismatch problem.

45. **While further corporate deleveraging continues to be crucial for strengthening macroeconomic stability in the longer term, policymakers could consider slowing the process in the face of a heightened external headwinds.** The policy to reduce corporate leverage over the past two years has made progress, as reflected by the gradually declining corporate debt-to-GDP ratio. Amid worsening confidence due to the trade war, a significant reduction in corporate leverage may exacerbate the downward pressure on the real economy. Therefore, we are of the view that the pace of deleveraging can be fine-tuned to mitigate its impact on growth. However, this should not reverse the progress made in reducing corporate indebtedness, which should continue to be a policy priority in the longer term. In particular, SOEs are the main contributor to the high level of corporate debt, which means that SOE reform continues to be key to addressing this challenge.

Authorities' Views

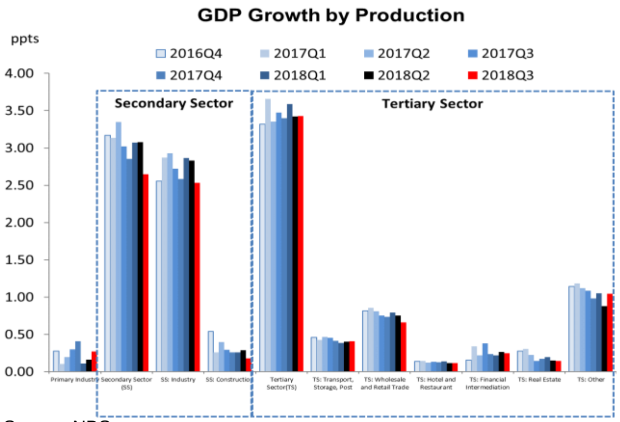
46. **Both household and corporate debt developments are under the close scrutiny of the government and the current leverage ratio is appropriate at this stage.** The authorities viewed that there is room for household debt to grow further. Nonetheless, they will closely monitor its development and ensure that credit standards will be stringent. Debt repayment indicators show that the risk is still very manageable. While mortgage loans are on the rise, household assets are also rising in tandem, with housing being the largest asset of households and home ownership rising to the high levels (around 90 percent of the population). In terms of corporate leverage, the authorities highlighted that the corporate debt-to-GDP ratio has moderated and that the current leverage ratio is appropriate at this stage. Corporate deleveraging will continue to be a priority and SOE reforms will be a key part of the plan for deleveraging. In terms of SOE reforms, the authorities have pledged to continue pushing forward reforms related to mixed ownership.

Appendices

1. Selected Figures for Major Economic Indicators

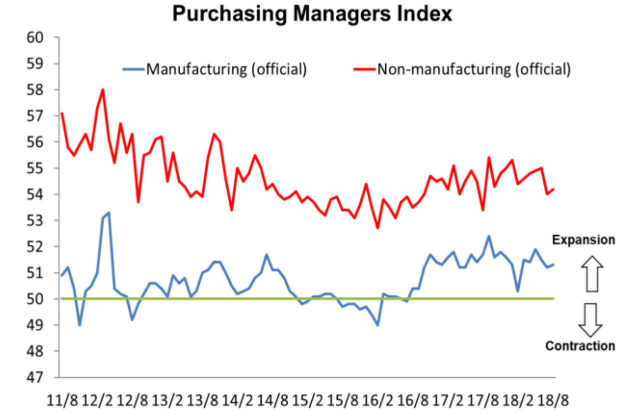
Figure 1. 1 Real Sector

China's GDP growth continued to be strong, with the services sector being the major driver.



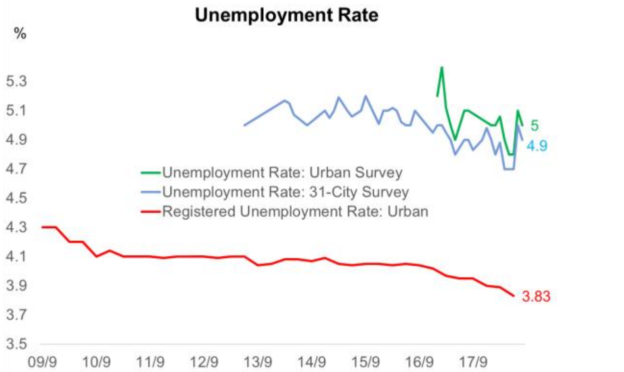
Source: NBS

PMI data showed that the manufacturing and services sectors continued to expand.



Source: NBS

However, the unemployment rate has increased in recent months, according to surveys.

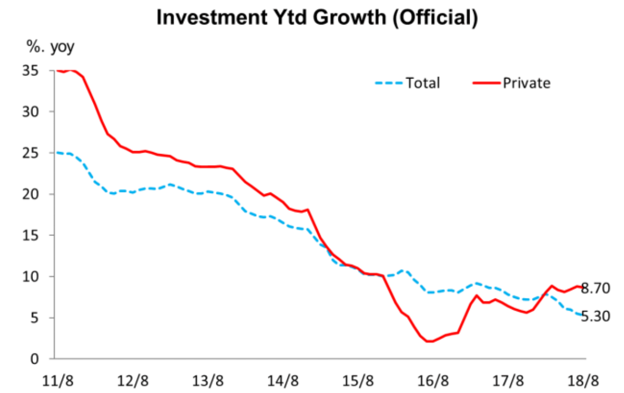


Source: NBS

Concerns over a trade war led to a contraction of new export orders, a leading indicator of exports.

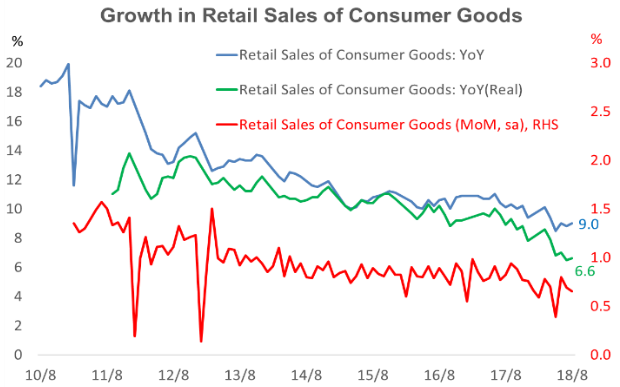
Source: NBS

Although private investment rebounded to some extent, investment has continued to moderate gradually overall.



Source: NBS

Real growth in retail sales moderated along with slowing economic growth.

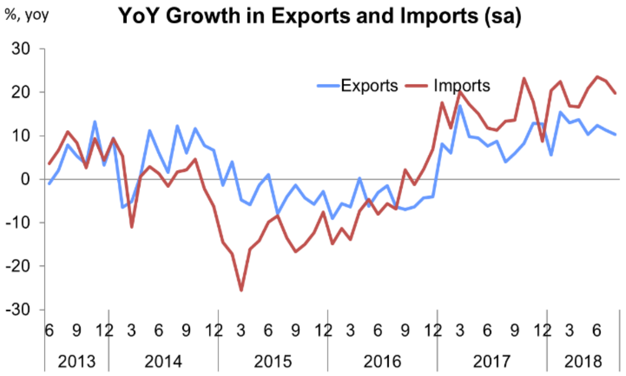


Source: NBS, MHRSS

Figure 1. 2 External Sector

Imports grew at a faster pace than exports,

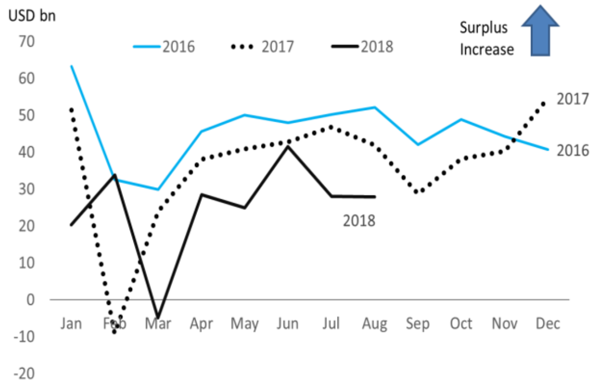
YoY Growth in Exports and Imports (sa)



Source: General Administration of Customs

… leading to a narrowing of the trade surplus.

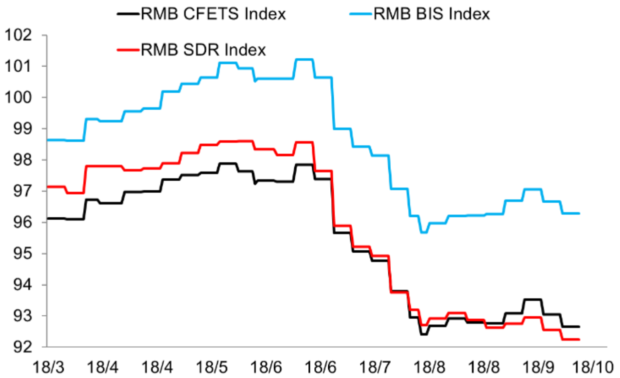
Goods Trade Balance



Source: General Administration of Customs

Due to concerns over a trade war, the RMB depreciated against the USD and other currencies.

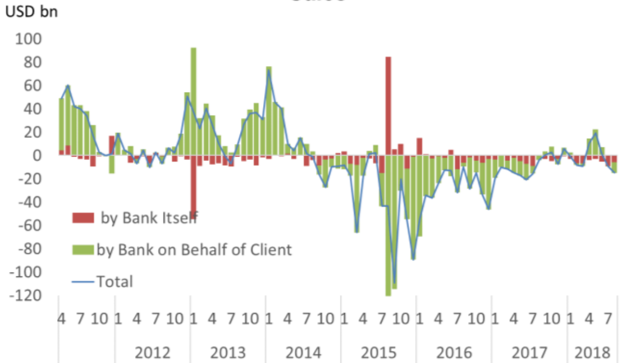
RMB Currency Basket Indices (2014.12.31=100)



Source: CFETS

However, the weakening RMB has not led to sizable outflows yet, partly due to capital flow management measures such as the reserve requirement on FX swap sales.

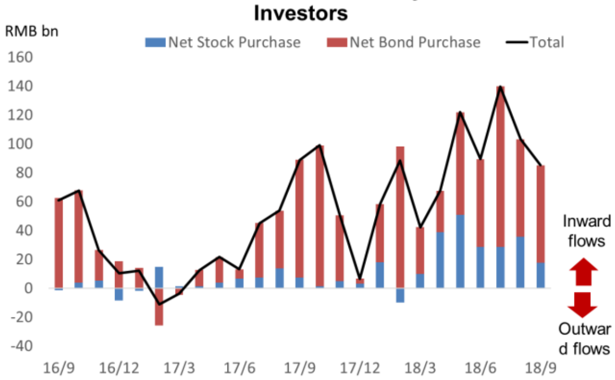
Balance of Foreign Exchange Settlement and Sales



Source: PBC

Foreign investors have increased exposure to Chinese bonds and equities, encouraged by the bond connections with Hong Kong SAR, China and the MCSI's inclusion of A shares.

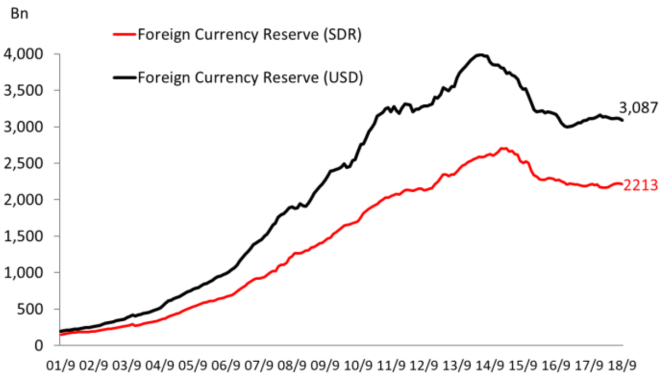
Net Stock and Bond Purchased by Overseas Investors



Source: HKEx

As a result, foreign reserves remained relatively stable.

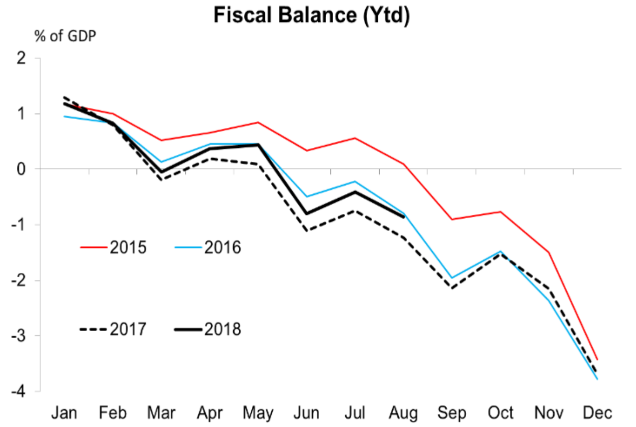
Foreign Reserves



Source: PBC, AMRO

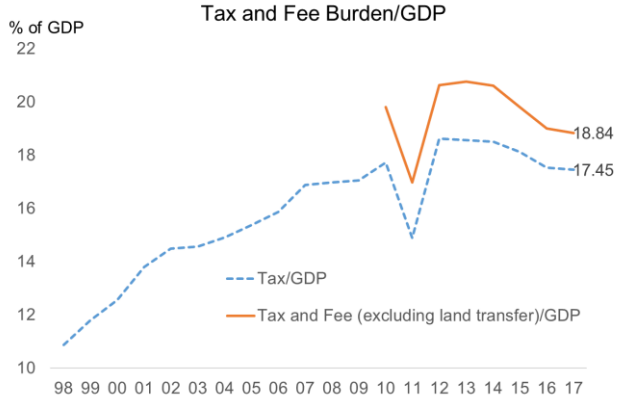
Figure 1.3. Fiscal Sector

In the first eight months of 2018, the fiscal deficit as percentage of GDP was smaller than in the same period in 2017.



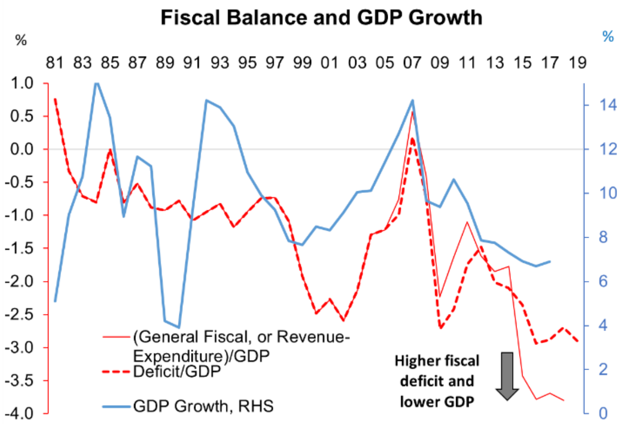
Source: CMOF

The ratio of tax and fees to GDP has declined slightly due to reforms to reduce tax and fees and there is room to reduce the tax burden further.



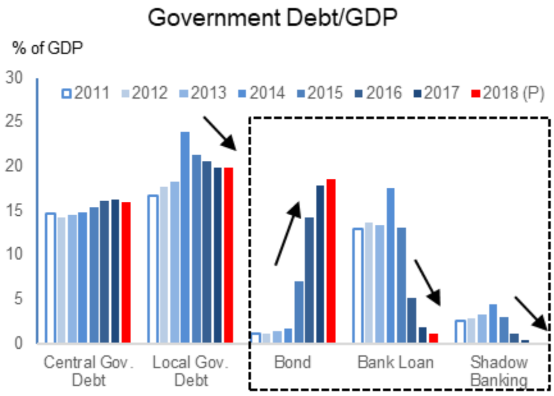
Source: CMOF

The current proactive fiscal policy is expect to continue.



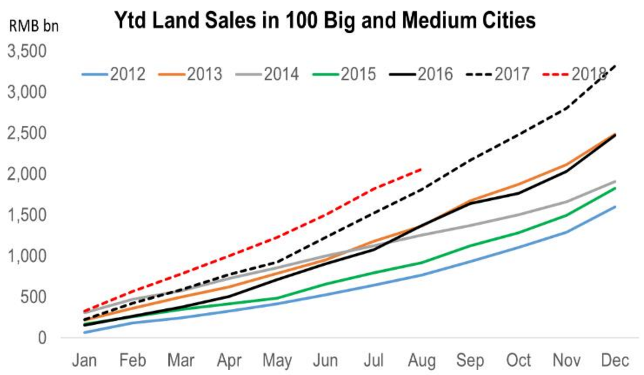
Source: CMOF

The debt-to-bond swap program and strengthened local government debt management efforts have led to declining levels of official local government debt.



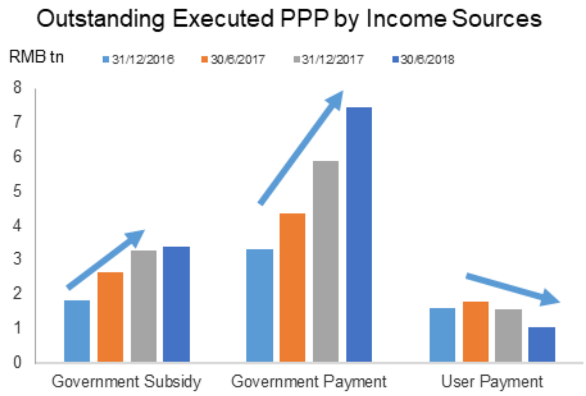
Source: CMOF, PBC, AMRO

However, local governments continued to rely more heavily on revenue from land sales.



Source: Wind

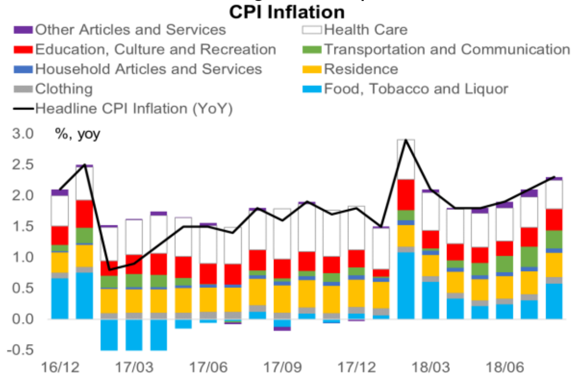
The amount of subsidies and payments for PPP projects rose further.



Source: CMOF

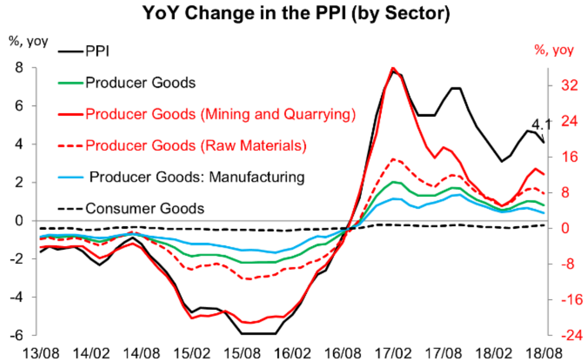
Figure 1.4. Price and Monetary Policy

CPI inflation has gradually increased since May 2018 due to higher food prices.



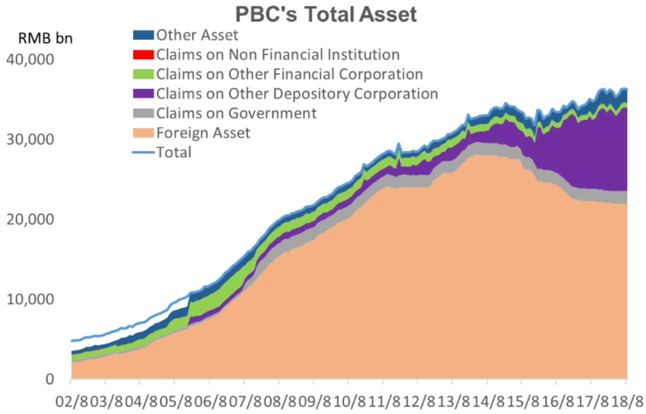
Source: NBS

PPI inflation has continued to moderate.



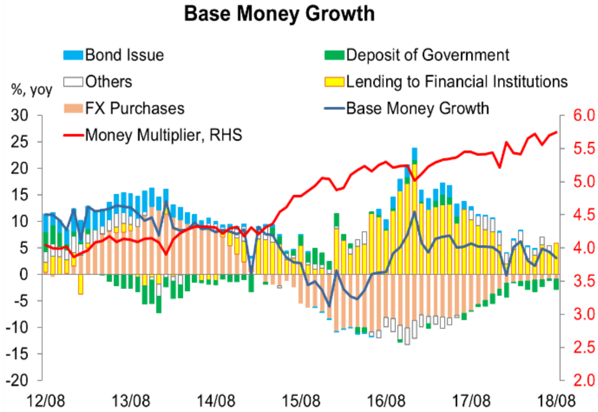
Source: NBS

The PBC continued to increase liquidity provision for financial institutions to counter declining foreign assets.



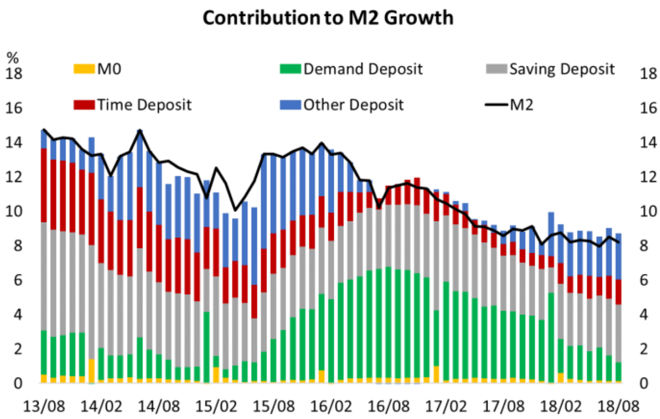
Source: PBC

Growth in base money moderated slightly, supported mainly by lending to financial institutions.



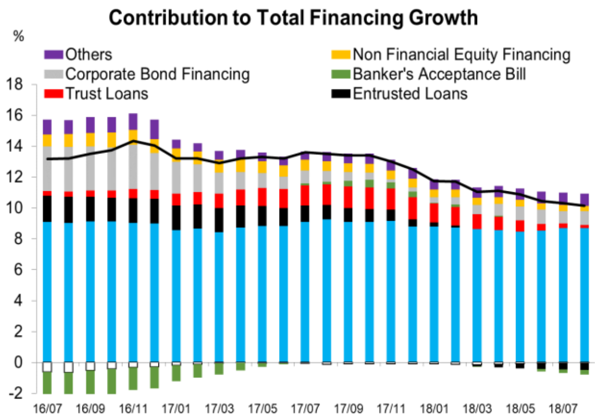
Source: PBC

M2 growth has stabilized.



Source: PBC

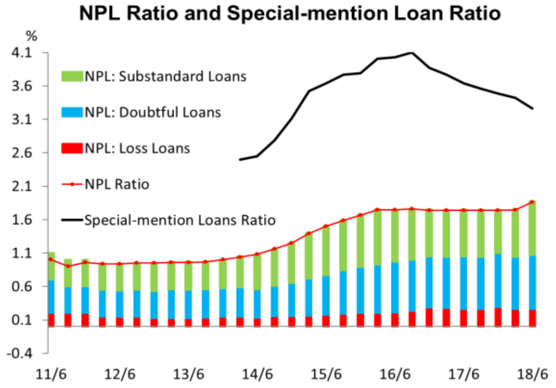
Total social financing has slowed due to shrinking shadow banking activities.



Source: PBC

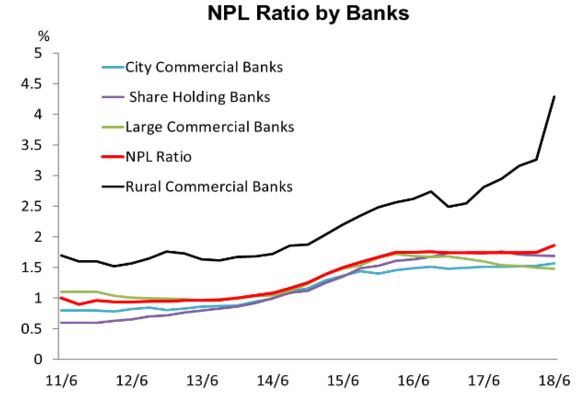
Figure 1.5. Financial Sector and the Property Markets

The NPL ratio rose by more in Q2 as compared to previous quarters partly because a part of special mentioned loans has been classified as NPL.



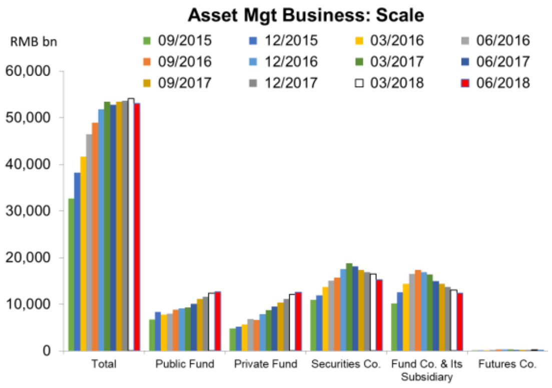
Source: CBIRC

The rising NPL ratio was mainly driven by a higher NPL ratio in rural commercial banks, reflecting slowing economic growth and expanding coverage of NPLs.



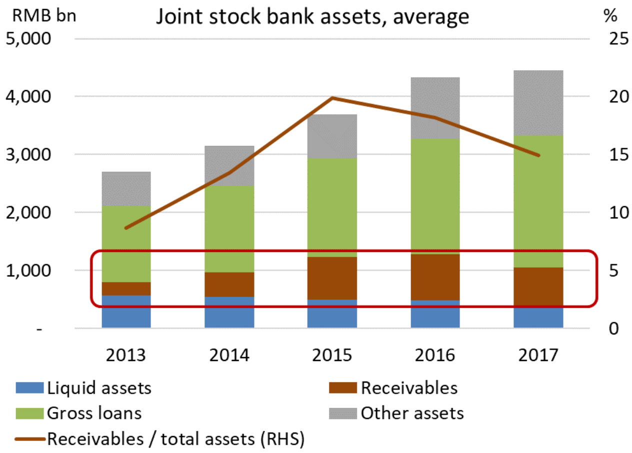
Source: CBIRC

The size of asset management businesses has declined due to deleveraging in the financial sector.



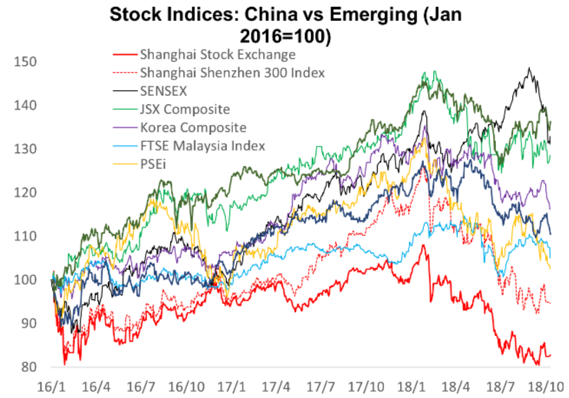
Source: CBIRC

Joint Stock banks have reduced their exposures to shadow banking products (receivables).



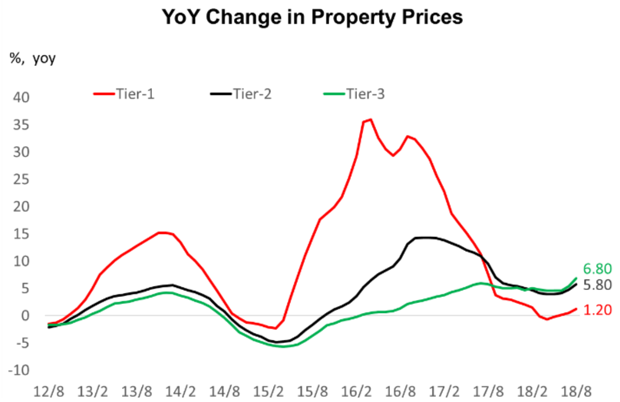
Source: Bankscope, Wind, AMRO staff calculations

China's stock market has declined since January this year, largely due to the trade war.



Source: Stock Exchanges in Emerging Markets

Property prices are increasing, especially in small and mid-sized cities.



Source: Wind

2. Table of Selected Major Economic Indicators

	2014	2015	2016	2017	2018			2018	2019
					Q1	Q2	Q3	Projection	
Real Sector									
Nominal GDP (RMB bn)	64397	68905	74359	82712	19878	22018	23194	*90446*	*98179*
Nominal GDP (USD bn)	10449	10964	11191	12250	3128	3451	3410	*13499*	*14026*
Real GDP (% yoy)	7.3	6.9	6.7	6.9	6.8	6.7	6.5	*6.6*	*6.2*
Consumption (% yoy)	6.7	7.8	8.3	7.5				*8.1*	*7.6*
Gross Capital Formation (% yoy)	7.1	6.0	6.0	4.7				*4.7*	*4.4*
PMI (Mfg)	50.7	49.9	50.3	51.6	51.0	51.6	51.1		
PMI (non-Mfg)	54.4	53.6	53.7	54.6	54.8	54.9	54.4		
Labor Market									
Newly-hired Urban Workers (Person mn)	13.2	13.1	13.1	13.5	3.3	4.2	3.6	*13.0*	*12.8*
Average Registered Unemployment Rate: Urban, %)	4.1	4.0	4.0	3.9	3.9	3.8	3.8	*3.9*	*4.1*
Average Wages (RMB)	56360	62029	67569	74318					
Growth in Average Wages (% yoy)	9.5	10.1	8.9	10.0					
External Sector									
Exports (% yoy, USD)	6.0	-2.6	-6.4	6.7	13.0	10.9	11.6	*7.0*	*0.0*
Imports (% yoy, USD)	0.7	-14.4	-5.4	15.9	19.1	19.9	20.7	*10.0*	*10.0*
Trade balance (USD bn)	380.1	601.7	547.1	438.0	49.1	94.8	87.6	*413.4*	*210.8*
Trade Balance (% of GDP)	3.6	5.5	4.9	3.6	1.6	2.7	2.6	*3.1*	*1.5*
Current Account Balance (USD bn)	236.0	304.2	202.2	164.9	-34.1	5.3	16.0	*67.5*	*42.1*
Current Account (% of GDP)	2.3	2.8	1.8	1.3	-1.1	0.2	0.5	*0.5*	*0.3*
Financial and Capital Balance (excl. Reserves, USD bn)	-51.4	-434.1	-416.4	148.5	98.7	29.9	-19.0	*40.5*	*28.1*
Financial and Capital Balance (% of GDP)	-0.5	-4.0	-3.7	1.2	3.2	0.9	-0.6	*0.3*	*0.2*
FDI (USD bn)	128.5	135.6	133.7	136.3	34.5	33.8	29.6		
ODI (USD bn)	123.1	145.7	196.1	120.1	25.5	26.5	27.5		
External Debt, Gross (USD bn)	1779.9	1383.0	1415.8	1710.6					
Foreign Reserves (USD bn)	3843.0	3330.4	3010.5	3139.9	3142.8	3112.1	3087.0		
Exchange Rate (Against USD, Period Average)	6.16	6.28	6.64	6.75	6.36	6.38	6.80		
Money and Prices									
M2 (% yoy)	12.2	13.3	11.3	8.1	8.2	8.0	8.3	*8.3*	*8.2*
Aggregate Financing (% yoy)	14.3	12.6	16.6	13.4	11.9	11.1	10.6		
Total Loan (% yoy)	13.3	14.5	12.8	12.1	11.9	12.1	12.8		
Lending Rate (1y, Period End, %)	5.6	4.4	4.4	4.4	4.4	4.4	4.4		
CPI (Period Average, % yoy)	2.0	1.4	2.0	1.6	2.2	1.8	2.3	*2.0*	*2.2*
Core CPI (Period Average, % yoy)	1.6	1.5	1.6	2.1	2.1	1.9	1.9		
Producer Price Index (Period Average, % yoy)	-1.9	-5.2	-1.4	6.3	3.7	4.1	4.1	*3.5*	*2.5*
Fiscal Sector									
Revenue (% yoy)	8.6	5.8	4.5	7.4	13.9	7.7	4.2	*8.0*	*6.0*
Expenditure (% yoy)	8.3	13.2	6.3	7.6	11.1	5.3	6.8	*8.5*	*6.0*
Revenue (% of GDP)	21.8	22.1	21.5	20.9	25.4	24.4	17.9	*20.6*	*20.1*
Expenditure (% of GDP)	23.6	25.5	25.2	24.6	25.7	27.5	22.3	*24.4*	*25.8*
Overall Balance (% of GDP)	-2.1	-2.4	-2.9	-2.9	-0.2	-3.1	-4.4	*-2.8*	*-2.9*
Central Government Debt (% of GDP)	14.9	15.5	16.1	16.3					
Financial Sector and Property Markets									
Shanghai Stock Exchange Composite Index	3235	3539	3104	3307	3169	2847	2821		
Shanghai Interbank Offered Rate, Overnight (%)	3.53	1.99	2.23	2.84	2.69	2.63	2.65		
10 Year Treasury Bond Yield (%)	4.16	3.37	2.86	3.58	3.85	3.59	3.59		
Banking Capital Adequacy Ratio (%)	13.2	13.5	13.3	13.7	13.6	13.6	13.8		
NPL Ratio (%)	1.25	1.67	1.74	1.74	1.75	1.86	1.87		
New Constructed Home Prices (Average, %, yoy)	2.6	-3.8	6.2	8.3					
Second-hand Home Prices (Average, %, yoy)	1.1	-2.8	5.3	6.9	4.6	4.1	6.0		

Note:
(i) The data is as of 19 October 2018
(ii) RMB external debt has been included since 2015
Source: 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.

Annexes: Selected Issues

1. The New Economy: Characteristics, Driving Factors and Challenges

1. **China has developed its "new economy" quickly to drive future growth,** by deepening capabilities across different economic sectors and product ranges during the last decade. This analysis explains what it is, what underpins its developments, and what should be addressed to realize its full potential.

What is the new economy and how important is it for the Chinese economy?

2. **A country is said to be transiting to "new economy" activities when it reconfigures factor inputs substantively, by using more advanced methods to either produce new goods and services, or deliver traditional good and services more effectively, to consumers and businesses.** In 2016, Premier Li Keqiang opined that the "new economy" referred to fostering new drivers of growth and encouraging China's economic transformation, covering a wide range of areas including not only emerging forms of business including e-commerce, cloud computing and the Internet of things but also smart manufacturing and customized production in the industrial sector, family farms and share-holding cooperatives.

3. **The "new economy" currently accounts for a sizeable proportion of China's GDP.** According to China's National Bureau of Statistics (NBS), "new economy" sectors or activities spanned 12 diverse areas including high technology, new products, urbanization, new commercial businesses, and e-commerce. The NBS' calculations suggest that the "new economy" constituted about 15% percent of GDP in 2017.

4. **The often-talked of Fourth Industrial Revolution (4IR) shares many similarities with the "new economy", but there are important distinctions**. The 4IR is literally the fourth major wave of industrialization across many advanced and emerging economies. 1IR took place in the US and Europe during the 18th and 19th centuries. 2IR unfolded in the half-century just before WWI. 3IR is commonly understood as having started in the 1980s and going on now (towards the end of the 2010s) but possibly tailing off. Successive waves of industrialization have brought countries to a point where the 4IR coincides with, or is characterized by, major technological advances. Many of these are also taken to be features of the "new economy", but the "new economy" is broader than the 4IR. One key distinction is that the "new economy" also encompasses the services sector – which is large and growing in many advanced and emerging economies, and which historically has had a tendency to increase as a share of countries' GDP as economies become more developed. Moreover, "services" in the context of the "new economy" refer to not just services which meet the demands of end-consumers but importantly, also services which support or enable manufacturing activities. This blurring of lines between different sectors is itself also a distinctive feature of the "new economy". Chinese policymakers' inclusion of many (sub) segments of services in their conceptualization of what constitutes China's "new economy" is in line with this understanding.

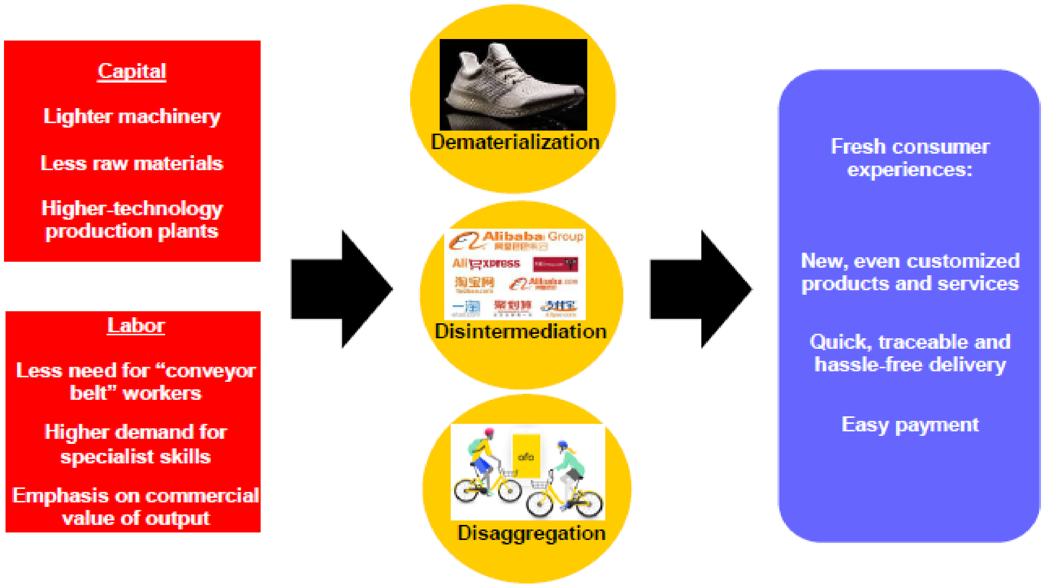
What are the characteristics of "new economy's" activities and the driving factors?

5. **Digitization is arguably the single most important driver of the new economy. It contributes to the transformations of products, services and their distribution channels.** Prime examples of China's "new economy" activities driven by digitization can be found in diverse areas, ranging from the automobile sector to retail and financial services (please see Figure S1.1). Some examples are as follows:

- In the automobile sector, China's transformation has included dematerialization in the production of vehicles (using lighter materials and also replacing some hardware with software for in-vehicle functions), disintermediation in the provision of transport services (the use of mobile apps for car-booking and car-sharing), and disaggregation in the use of shared-mobility solutions (new possibilities for commuters to rent bicycles for short usages in highly dispersed ways).
- In the retail space, there has been dematerialization in the replacement of brick-and-mortar shops by internet shops, disintermediation in the sense of business models being driven more and more by data analytics, and disaggregation in the sense of proliferation of specialty products meeting niche demands.
- In financial services, Ant Financial Services under the Alibaba Group is a firm which uses advanced technologies to understand (prospective) customers, devise financing solutions, manage risks, and deliver services to end-users. This includes using Big Data to analyze behaviors and gauge would-be default risks, as well as using findings to differentiate groups of borrowers and set loan interest rates accordingly.

6. **The above developments are made possible by China combining several advantages around size and agility.** China has an extraordinarily big consumer market, and a large pool of human resource in IT-related sectors. The private sector has demonstrated nimbleness in creating commercial value from the new technology; and the government has provided strong support for the private sector to experiment and innovate (such as providing space and grants for experimentation and increasing its own R&D expenditure). Together, these factors have meant greater possibilities for China to achieve breakthroughs from implementing new ideas at large scale. Private sector enterprises have played a key role, being the ones which design and apply digital business models across the economy. For example, electronic means of order placements and financial payments are now used for meals at roadside eateries and purchases of expensive consumer durables alike. Well-capitalized BAT players (Baidu, Alibaba, and Tencent) are building a rich and rapidly growing digital ecosystem that is now growing rapidly.

Figure S1.1. Schematic Illustration of China's New Economy:
Producing and Delivering Goods and Services More Effectively



Challenges moving forward

7. **China still needs to overcome some important challenges to develop its "new economy" further** – to spur domestic growth, enhance leadership positions globally, and also boost resilience.

8. **With the rise of protectionist tendencies not just in trade but also in technology, China needs to find ways to learn and develop key basic technologies.** The idea is both to gain mastery in high-technology products and to reduce its reliance on other countries for the underlying advanced technology. The starkest example is advanced microchips, where US sanctions on ZTE earlier this year highlighted the importance for China to become more self-sufficient.

9. **China needs to address perceptions that progress in strengthening intellectual property rights protection is slow although efforts are made in the right direction.** This is important for incentivizing research and innovation. Related, China also needs to address cyber security concerns. So far, incidents of cyber breaches around the world leading to either financial losses or compromise of confidential information have often been associated with financial institutions. But as non-financial companies use digital platforms more and more, cyber security will also become key for both businesses and customers.

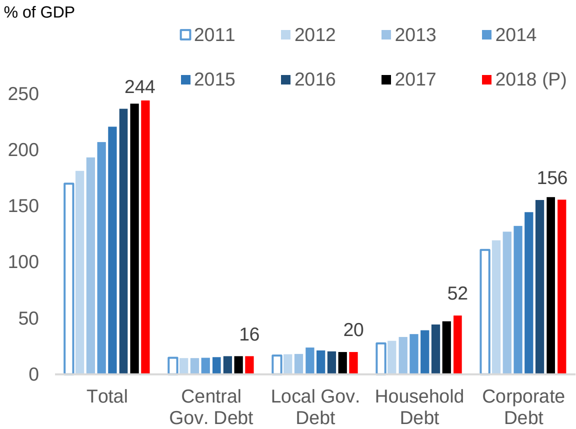
10. **Finally, China needs to ensure that companies and workers "left behind" in the "old economy" are able to either transform themselves in the sectors they have been operating in, or move to other sectors where they can make a fresh start.** It can be traumatic for companies or (previously) workers in the old industries to confront the reality that their products, knowledge, and knowhow have become obsolete and have little economic value

left. Safety nets to tide displaced companies and workers through difficult periods will be important. Targeted training programs to help the workers acquire new skills and add value in the “new economy” will be critical too.

2. Should we be concerned about household debt in China?

Size and Components of Chinese Household Debt

Figure S2.1. Total Debt Structure

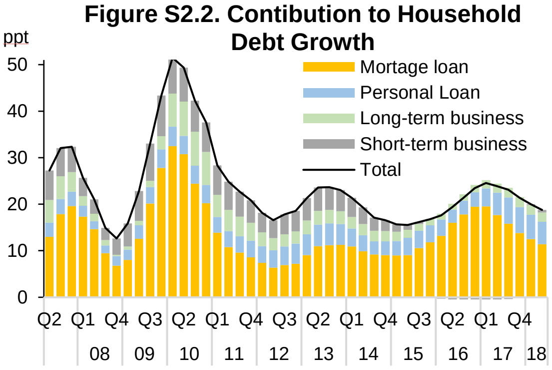


Note: Estimates for household debt is based on bank loans
Source: NBS, CMOF, PBC, AMRO

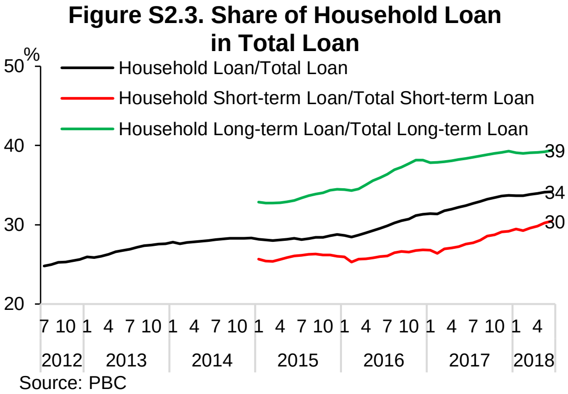
1. **Household debt is the second largest type of debt in China and it has witnessed the fastest growth in recent years.** According to AMRO estimates, household debt, which stood at about one-third of the corporate debt level, accounted for 21 percent of China's total debt in 2017 and was equivalent to 47 percent of GDP. However, the growth rate of household debt is the fastest, especially since 2016. In 2018, the household debt growth rate is expected to be 17 percent, with the ratio of household debt-to-GDP rising to 52 percent in 2018. While both corporate and government debt levels have moderated, the rising household debt has been the main contributor behind the continued rise in total debt in 2017 and this is expected to continue moving forward (Figure S2.1).

2. **Compared to most developed and regional countries, China's household debt-to-GDP ratio is still relatively low, but it is growing faster.** According to the Bank for International Settlements (BIS), by the end of 2017, China's household debt-to-GDP ratio was 48 percent, lower than the G20 average (61 percent) and lower than most developed countries, but higher than most emerging markets outside the region. While household debt has been growing fast across emerging markets since the GFC, the growth is the fastest in China.

3. **In China's household debt, mortgage loans account for the majority.** China's household debt consists of four parts: mortgage loans, personal loans (reflected as credit card loans and car consumption loans), and long-term and short-term business loans. As of Q2 2018, mortgage loans accounted for 53.6% according to CBIRC, personal loans accounted for 17 percent, and long and short-term business loans accounted for 11 percent each. This rise in mortgage loans has been largely owing to the booming property market and better access to credit by households. At the same time, the growth rate of personal loans has also grown rapidly since 2016. On the other hand, the growth in short-term business loans has decelerated, which is partly replaced by the borrowing of small and micro-enterprise loans, but the latter is not considered a part of household loans (Figure S2.2).



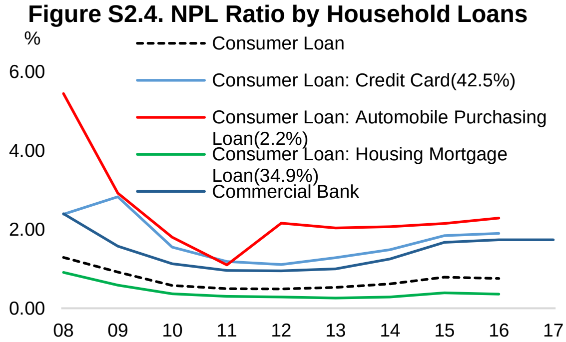
Source: PBC, AMRO



Source: PBC

Is rising household debt a concern for the banking sector and a big burden for households themselves?

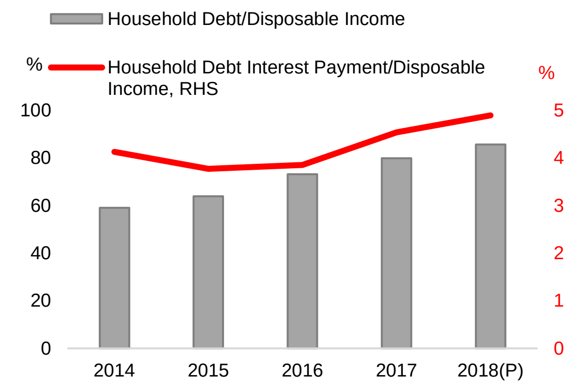
4. **In the banking sector, the non-performing loan ratio is still at a low level and the overall risk is manageable.** The share of total household loans to total bank loans grew from 25 percent in 2012 to 34 percent in Q2 2018 (Figure S2.3). In terms of non-performing loan ratio, the quality of household loans is better than other loans. As of the end of 2016 (the latest data), the NPL ratio of household loans and home mortgages was only 0.8 percent and 0.4 percent respectively, lower than the banks' overall NPL ratio of 1.74 percent (Figure S2.4). Meanwhile, the non-performing rate of credit card and auto loans was higher at 1.9 percent and 2.3 percent respectively, but the total amount was limited, accounting for 6 percent of total bank loans. Meanwhile, the ratio of mortgage loans to home sales reached a peak of 57 percent in 2016. Due to tighter mortgage loan issuance aiming to control home buying and speculation, this ratio is expected to fall to 44 percent in 2018. This above analysis indicates that the risk of household debt to the banking system is manageable.



Note: the number after each loan is the share of NPLs in total NPL
Source: PBC, AMRO

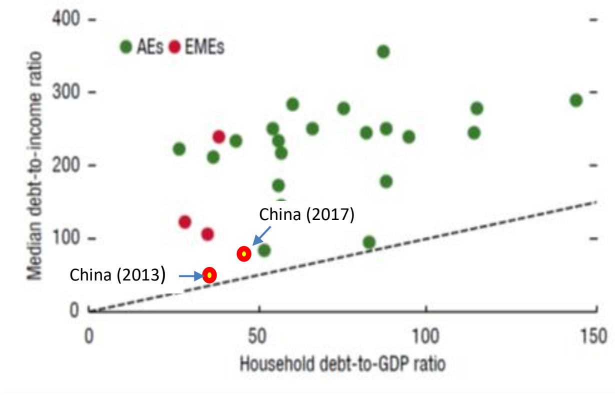
5. **The household debt leverage is rising rapidly it is still much lower than most other countries**. Household debt to disposable income has been rising quickly from 59 percent in 2014 to 80 percent in 2017 and it is expected to increase to 86 percent in 2018 as debt is expected to continue to rise faster than disposable income. Meanwhile, interest payments to disposable income have also risen since 2016, from 3.8 percent 4.9 percent in 2018 (Figure S2.5). Nevertheless, this level is still very low compared with most countries (Figure S2.6).

Figure S2.5. Household Debt vs Disposable Income



Source: NBS, AMRO

Figure S2.6. Median Debt-to-Income Ratio and Household Debt to GDP (2013)



Source: IMF

6. **Households with heavy debt burden are concentrated in the lowest income group.** According to the 2017 credit report for China's wage-earning households, the average proportion of households with debt/income ratio larger than 4, is 4.3 percent in total. Among the five income groups, the households with debt/income ratio larger than 4 accounted for as much as 9.7 percent of those in the lowest income group (Quintile1: 0-20 percent). The lowest income group accounts for 44.7 percent of all households with debt/income ratio exceeding 4.

Policy Implication

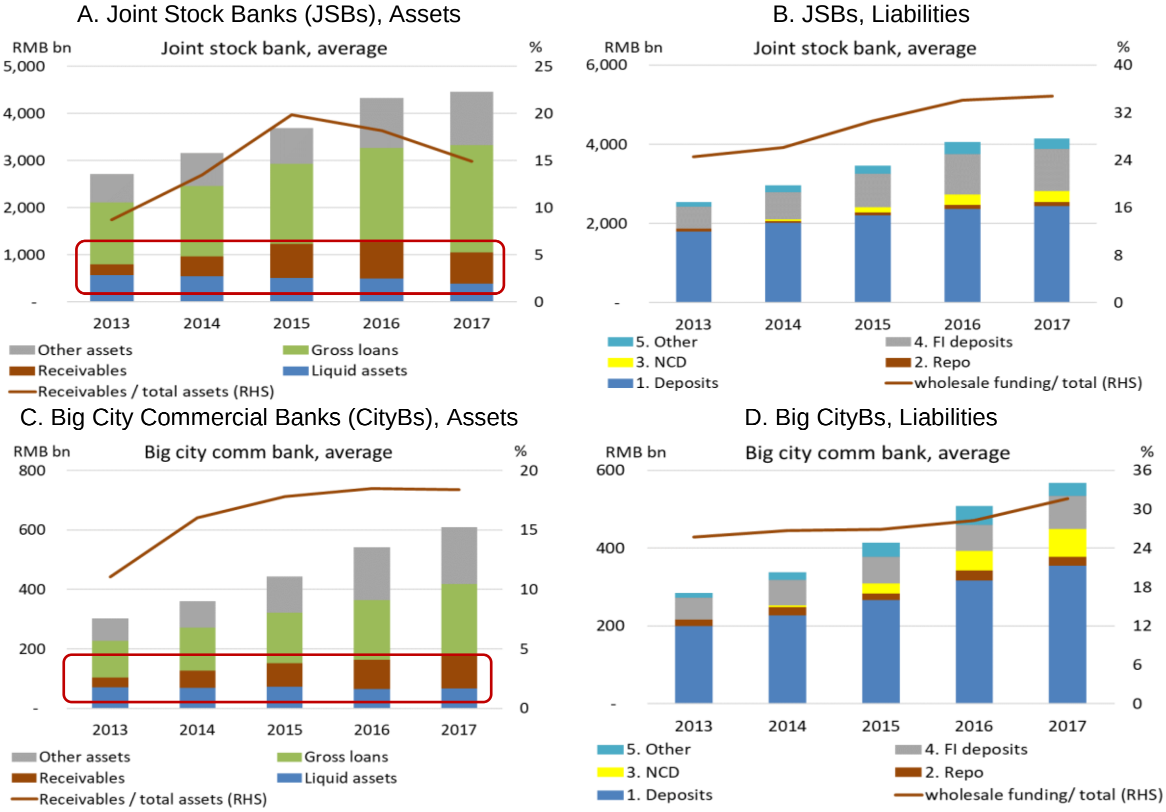
7. **The growth of household debt should be closely monitored and stringent credit standards need be in place.** Household debt will continue to be the biggest contributor to the increase in total level of debt in China moving forward. Hence, the growth of household debt should be closely monitored, even though the level is still relatively low compared with international peers and there is room for it to grow. Even though the overall debt burden is not high and repayment capacity is generally not a problem yet, more stringent credit standards should be in place when issuing household loans, to ensure that the borrowers have the capacity to repay the loans. Greater attention should be paid on households with low repayment capacity, especially those in the low-income group. The authorities should also further regulate and monitor the use of personal loans, and strictly prohibit households from using personal loans to finance home purchase as it will create a maturity mismatch problem.

3. Liquidity risk of medium-sized banks

1. **Since 2013, the liquidity risks of medium-sized banks in China have increased as a result of greater reliance on short-term wholesale funds on the liability side and loan-like shadow banking products on the asset side.** This selected issue discusses the instruments employed by banks to increase leverage by acquiring shadow-banking assets and obtaining short-term wholesale funding, which led to higher liquidity risks. 976Recently and especially since 2017, a number of policy measures have been taken to reduce financial sector leverage and improve liquidity risk management.

Increasing Reliance on Shadow Banking and Wholesale Funding

Figure S3.1. Asset-liability Structure of Different Types of Banks



Note 1: The chart includes only banks with valid detailed financial statements for each year from 2013 to 2017.
Note 2: We define Big City Commercial Banks as those with assets >RMB 212 billion in 2017.
Note 3: Liquid assets is estimated as (Cash with central banks **-** Mandatory reserve deposits with central banks **+** Financial assets: trading and at fair value through P/L **+** Net loans to banks **+** Reverse repos)
Note 4: In Panel A and C, "receivables" refers commercial banks' investment in receivables and similar products.
Note 5: In Panel B and D, wholesale funding includes: (2) repo, (3) negotiable certificate of deposit (NCD) and (4) FI deposits. These three items are mostly short-term (less than one year). Other types of wholesale funding, such as Basel compliant capital instruments, are not included.
Source: Bankfocus, Wind, AMRO staff calculations

2. **Chinese banks were very conservative in liquidity risk management due to the loan-to-deposit (LTD) cap.** In 1994, the PBC introduced an LTD cap of 75 percent that remained effective until 2015.[12] In addition, until the GFC, banks had been primarily engaged in simple deposit-taking and loan origination activities. As a result, Chinese banks' liquidity profiles were very strong.

[12] According to then CBRC chairman Mr. Shang, "with the changing structure of the asset-liability, the LTD indicator cannot fully reflect the true liquidity profile", and "there are more effective, granular and precise measurements, such as the LCR".

3. **However, in recent years, on the asset side, Chinese medium-size banks' have exposed themselves more to liquidity risk (Figure S3.1, Panels A and C) along with their increased investment in receivables.** The medium-size banks refer to joint stock banks (JSB) and big city commercial banks (CityB). JSBs increasingly invested in receivables from 2013 to 2015 (Panel A), before scaling back in 2016 and 2017 due to stricter regulations.[13] Big CityBs have also been aggressive in investments in receivables (Panel C). Receivables are mostly loan-like shadow banking products[14] with weak liquidity, as they cannot be disposed easily or be pledged as collaterals for cash. Hence, they need to be matched with stable funding.

4. **The liquidity risk of receivables is greater than that of bank loans as they are opaque and more susceptible to financial contagion.** Risk could spread from one participating entity to another. For instance, if participating entity A was to incur liquidity stress, this stress could spread through the financial system if other entities such as B and C don't have adequate liquidity buffers to absorb the liquidity shortage. In this manner, the risk may spread as these institutions are often deeply connected.

5. **Moreover, on the liability side, these medium-size banks have also increasingly been exposed to liquidity risk (Figure S3.1, panel B and D) by relying on short-term wholesale funding, especially by issuing negotiable certificates of deposit (NCDs).** Both JSBs and big CityBs have relied more on short-term wholesale funding, including repurchase agreements, NCDs and other kinds of financial institution deposits. The share of such funding increased from 2013 to 2017. For big CityBs, the increase in wholesale funding was significantly enabled by NCD issuance, which on average made up for about 40 percent of wholesale funding in 2017, from zero in 2013. For ambitious medium-size banks with a limited deposit base, NCDs provide a flexible and effective tool to actively manage (or expand) liabilities, and in the past, they could be used to bypass restrictions on interbank borrowing.

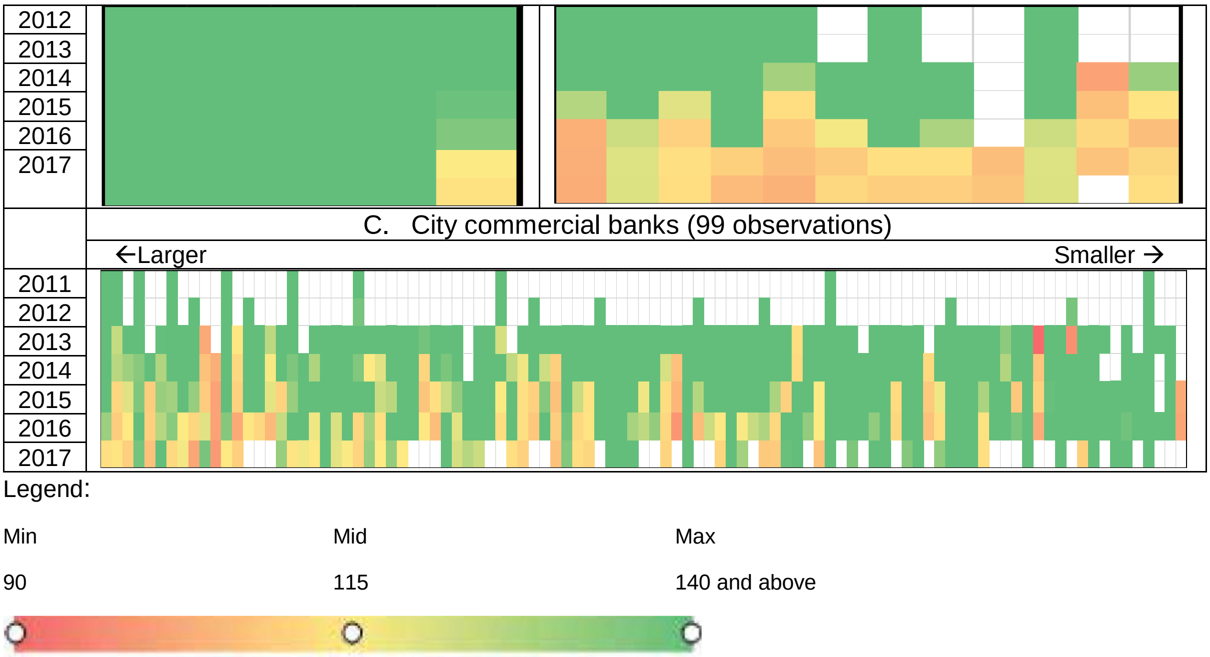
6. **However, NCDs are still subject to uncertainties in the short-term wholesale funding market.** While NCDs may be less risky than other types of interbank-funding, the remaining maturity of most NCDs is less than one year, making them less stable than deposits and long-term bonds. In addition, the NCD interest rate has been volatile, exposing banks to rollover and interest rate risks.

Quantitative Analysis Based on Net Stable Capital Ratio (NSFR)[15]

Figure S3.2. NSFR Heatmap for Different Types of Banks

Year	A. Large banks (5 Observations)	B. Joint Stock Banks (12 Observations)
	←Larger	Smaller →
2011		

[13] The PBC's MPA assessment began in 2016, which incorporated 16 indicators from 7 perspectives, including off-balance sheet financial activities. From March to April 2017, the CBRC issued eight consecutive documents, tightening supervision over almost all major trading products such as undiscounted bills, wealth management products and interbank assets.
[14] These are: Trust Plan and Asset Management Plan (信托计划及资管计划), Asset Management Plan(资管计划), Trust Plan(信托计划), Loan Assets(信贷资产), 票据资产 (Banker's Acceptance Bills), 债权收益权 (Debt Beneficiary Rights) and Wealth Management Products (理财产品).
[15] Note that the other key Basel liquidity indicator — liquidity coverage ratio (LCR) – requires much more information, which is not available to us. Therefore, we have chosen to focus on the NSFR.



Source: Bankfocus, Wind, AMRO staff calculations

7. **We carry out a back-of-the-envelope quantitative estimate for medium-sized banks' liquidity profile based on the NSFR.** The NSFR[16] measures a bank's ability to support medium- to long-term needs by indicating whether the required stable funding (partly due to investment in receivables) had been met with available stable funding (deposits, long-term bond and the like). According to the Basel III, the NSFR requirement is calculated as follows:

$$\text{NSFR} = \frac{Available\ amount\ of\ stable\ funding\ (ASF)}{Required\ amount\ of\ stable\ funding\ (RSF)}$$

An NSFR of 100 means that the liquidity required by the banks' assets and activities over a one-year timeframe has been met by a minimum amount of funding deemed "stable". In this analysis, we impose weights on different items (with publicly available information) of assets, liabilities and equity to estimate the NSFR.[17] These weights are broadly consistent with Basel and CBIRC's guidelines. For ease of peer comparison, banks are sorted according to their types and asset sizes as of 2016.[18] A heatmap is used to illustrate changes in NSFR (Figure S3.2).

8. **Although the NSFR was above 100 for a majority of the banks, it declined significantly for JSBs and big CityBs (medium-sized banks) in recent years (Figure S3.2).** The NSFR has always been very high for large banks (Panel A), rural commercial banks (not shown) and foreign banks (not shown). However, the NSFR for JSBs (Panel B) and big CityBs (Panel C) declined significantly to about 115, indicating that a further decline of NSFR may breach the minimum level of 100 for some banks.

[16] NSFR is a liquidity standard introduced by Basel III.
[17] In doing so for the estimate of ASF, we impose higher weights on equity and on stable liabilities, which provides available stable funding. To estimate RSF, we impose higher weights on illiquid assets, which *require* more stable funding.
[18] All banks in the sample have reasonably detailed financial statements in 2016.

Policy Developments and Recommendations

9. **Regulatory efforts have been strengthened to improve banks' liquidity profiles.** Some regulations are directly targeting banks' liquidity profiles, such as liquidity measures introduced by the CBIRC, and including NCDs in the MPA framework. To deleverage the financial system, some regulations aim to curtail shadow banking risk, which also help to reduce liquidity risk.

10. **Comprehensive liquidity measurements have been (or will be) implemented, including the NSFR.** The CBIRC recently announced a few measurements applicable to both large and small banks (Table S3.1), which have been implemented progressively since July 2018. Some of the measurements impose harsher penalties on shadow banking products than on loans. It also requires banks to set concentration limits for different wholesale funding tenors, to measure expected fund inflows and outflows intraday and consider the liquidity impact from unexpected incidents, to conduct peer comparison in LTD ratios, and to report to CBIRC immediately when any of the indicators approaches or falls below the minimum requirement.

Table S3.1. Commercial Bank Liquidity Risk Measurements

Liquidity measure	Indication	Banks with asset size ≥ RMB200 billion	Banks with asset size < RMB200 billion
Liquidity coverage ratio (LCR)	Resilience to stress event in the short term	√	Not applicable
Net stable funding ratio (NSFR)	Ability to support medium- to long-term funding needs	√	Not applicable
Liquidity ratio (LR)	Ability to repay short-term debt	√	√
Liquidity matching ratio (LMR)	Degree of duration mismatch	√	√
High-quality liquidity asset adequacy ratio (HQLAAR)	A simplified version of LCR	Not applicable	√
Loan-to-deposit ratio (LTD)	If loans are matched by stable deposits	Cap was removed in June 2015 but peer comparison is still required	

Source: CBIRC "Measurements for Commercial Bank Liquidity Risk Management", 2017.

11. **Including NCD in the MPA assessment will motivate banks to increase available stable funding.** For banks with assets more than RMB500 billion, PBC's Macro Prudential Assessment (MPA) imposes stricter regulations on NCDs. As for smaller banks, PBC will continue to monitor the progress and make appropriate requests in due course. The stricter regulations on NCDs are yielding positive effects. The NCD issuance plans of 565 banks in 2018[19] suggest that banks with low NSFR have mostly reduced planned issuance. Therefore, banks are more motivated to seek more stable funding, such as deposits or long-term bonds[20]

12. **Simplifying shadow banking products and the "seeing-through supervision" principle will reduce banks' required stable funding.** Regulators have been communicating

[19] Reuters. China's money market: 565 banks announced interbank NCD issuance plans with an overall size of RMB15,049.4 billion.
[20] In some cases, banks are also motivated to curtail their asset size.

the principle of "seeing-through supervision" to the markets. The “Guiding Principle on Regulating the Asset Management Business” was also recently announced, aiming to simplify products, enhance product transparency and enable “seeing-through” and real-time information disclosure and supervision. This will reduce required stable funding and improve the liquidity profile. The stricter regulations are yielding positive effects. As shown in Figure S3.1 (Panel A), due to stricter regulations, JSBs have scaled back their shadow banking activities. Based on our discussions during the annual consultation visit to China, big CityBs have also been following suit. This will reduce required stable funding.

13. **Regulatory efforts to improve banks’ liquidity profiles should continue to be pursued consistently and persistently, but they should also take into account the adjustment ability of banks.** It will take time for some banks to fully incorporate these regulatory efforts. As it is also not possible for banks to change their liquidity profiles overnight, the efforts should rely on a gradual and continuous process. Extremely stringent requirements in the short term may trigger market volatility and invite arbitrage through other activities. Further regulatory efforts should continue to be consistent for different entities and activities.

14. **Regulators and leading banks should take the lead in improving analysis on liquidity risk contagion.** They should establish and improve systematic liquidity risk monitoring and early warning systems, including qualitative/ quantitative risk assessment, the identification of key risk factors and possible risk contagion channels, and more targeted stress test on shadow banking activities. Documentation and disclosures of these studies are welcomed, as they will enable public scrutiny and allow less sophisticated banks to learn such practices.

15. **The rapid development of NCDs has deviated from the original intention, and their issuance should be contained.** NCDs were first introduced as a tool for banks to manage short-term liquidity, and to promote the interest rate transmission mechanism. However, banks have been counting on continuous NCD issuance to serve longer-term funding needs. Banks shall adjust the size and structure of their assets, such that they are commensurable to their ability in raising stable funding.

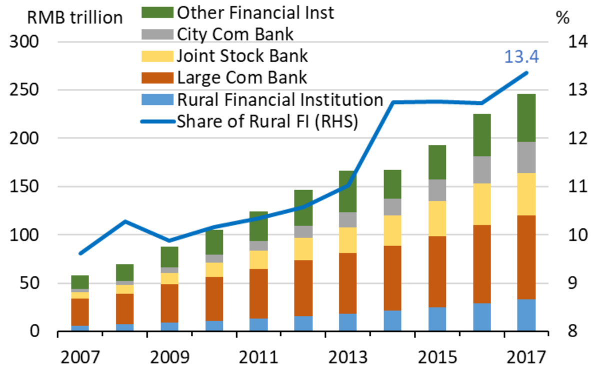
4. Credit Risks Faced by Small Rural Commercial Banks

1. **The overall NPL ratio of Rural commercial banks (RCBs) has been increasing rapidly, and some of them are undercapitalized and need to raise capital.** While the total assets and NPL of RCBs are small compared to China's banking system and GDP, RCBs' NPL ratio has been rising rapidly. The NPL ratio of RCBs rose to 4.3 percent in June 2018, and for a handful of them, the capital adequacy ratios are below the regulatory floor. Some, especially those in less developed areas where the economy has encountered overcapacity problems, will need to raise capital. RCBs also need to improve their corporate governance and credit policies.

Background and Emerging Risks

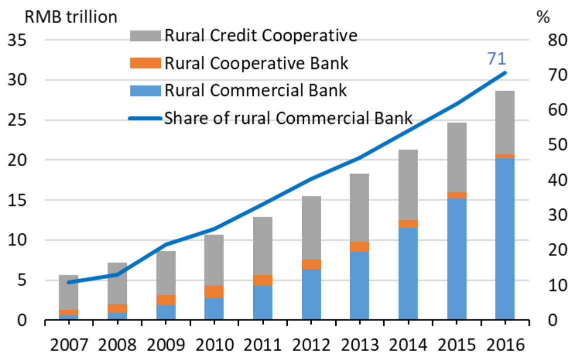
2. **The RCBs are instrumental to the development of rural areas and lower-tier cities, and they account for more than 10 percent of China's financial institutions' total assets.** In 2017, RCBs' assets comprised 13.4 percent of total financial system assets, growing from 9.6 percent in 2007 (Figure S4.1). Since the reform pilot in 2000, a large number of rural credit cooperatives have been converted into RCBs (please refer to Wang Jian, 2017[21] for a brief introduction, and Chen Daofu, 2012[22] for an in-depth study). As a result, as shown in Figure S4.2, by 2016, RCBs became much larger (in terms of assets) than other types of rural financial institutions. There are 1351[23] RCBs in China, and their performances vary significantly owing to differences in the local economies and their management.

Figure S4.1. Breakdown of Financial System Assets in China



Sources: CEIC, AMRO staff estimates

Figure S4.2. Rural Commercial Banks vis-à-vis Other Rural Financial Institutions



Sources: CEIC, AMRO staff estimates

3. **The NPL ratio of RCBs has surged in recent months and their NPL provisions have plunged.** As shown in Figure S4.3, while the overall commercial bank NPL ratio remained low and stable, the NPL ratio of RCBs surged to 4.3 percent in June 2018 from 3.3 percent three months ago. Their performances varied greatly and the average NPL ratio of the largest five RCBs was only 1.3 percent in 2017,[24] clearly indicating that a number of small RCB's NPL ratios are higher than 4.3 percent.

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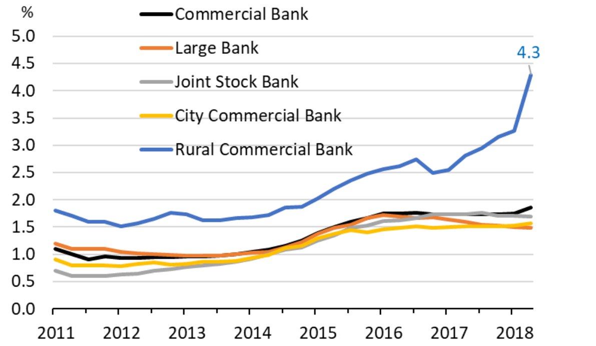
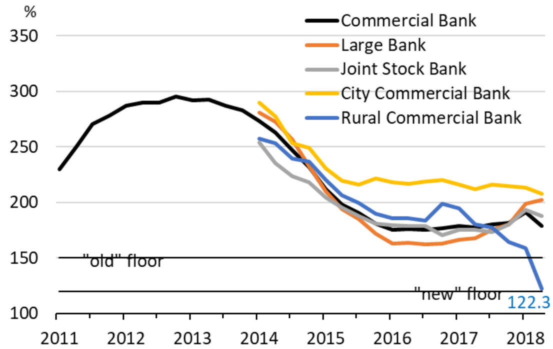
[21] A hundred years of hard work: the in-depth report of the Rural Commercial Bank. 百年耕耘：农商行深度报告 https://wallstreetcn.com/articles/3015969
[22] Challenges Facing the Reform of Rural Credit Cooperatives under New Circumstances, Development Research Center of the State Council, 2012 http://en.drc.gov.cn/2012-12/28/content_21779346.htm
[23] According to the list provided by CBIRC. http://www.cbrc.gov.cn/chinese/jrjg/index.html.
[24] They are Chongqing RCB, Shanghai RCB, Beijing RCB, Guangzhou RCB and Chengdu RCB.

Figure S4.3. NPL Ratios of Different Types of Banks



Source: CEIC

Figure S4.4. NPL Provision Ratio



Source: CEIC

4. **The overall NPL provision of RCBs also fell toward the regulatory minimum requirement.** Higher NPL ratios require more provisioning. Chinese banks were required to hold an NPL provisioning level of 120.0 percent in March 2018. However, RCBs' overall NPL provision was 158.9 and only slightly above this requirement (Figure S4.2), and a number of small RCBs' NPL provisions were already lower than 120.0 percent.

Table S4.1. Financial Ratios of a Few Troubled banks

	NPL ratio (%)			Capital adequacy (%)		
	2016	2017	2018 Q1	2016	2017	2018 Q1
Shandong Zouping	2.4	9.3	10.5	12	7	n.a.
Shandong Shouguang	3.6	4.2	n.a.	n.a.	n.a.	n.a.
Shandong Yuncheng	3.1	3.1	n.a.	n.a.	n.a.	n.a.
Hebei Tangshan	2.0	2.4	n.a.	n.a.	n.a.	n.a.
Henan Xiuwu	4.5	20.7	n.a.	13	-1	n.a.
Shanxi Yuncheng	1.8	1.5	n.a.	n.a.	n.a.	n.a.
Shanxi Houma	28.3	26.3	n.a.	n.a.	2	n.a.
Anhui Xuancheng Wannan	3.8	8.1	n.a.	12.8	10.5	n.a.
Guiyang	4.1	19.5	13.9	12	1	n.a.
Jilin Jiaohe	2.1	3.2	3.2	n.a.	n.a.	10

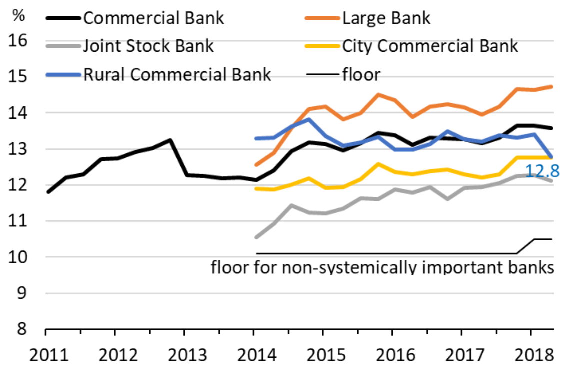
Source: Caixin and Sina

5. **Credit agencies have downgraded a few RCBs' credit ratings recently due to the surge in the NPL ratio, and some banks will need to raise capital.** A handful of RCBs' credit ratings have been downgraded. The local economies in some areas such as Northeast China and Inner Mongolia have slowed significantly and there could be a large number of micro and small enterprises (MSEs) and lending to the overcapacity sectors. Some of their NPL ratios have increased from single digits to double digits in the past two quarters, while their capital adequacy ratios are approaching zero (Table S4.1), resulting in a need to raise capital.

6. **RCBs' credit risk is not systemic but requires close monitoring.** As shown in Figure S4.5, despite the high NPL ratio, RCBs' overall capital adequacy ratio stood at 12.8 percent in June 2018, above the regulatory minimum for non-systemically important banks. In addition, as shown in Figure S4.6, in June 2018, the total NPLs of RCBs stood at RMB 540 billion, which is small for China (0.65 percent of GDP). In addition, RCBs' business model is simple and their linkages to other financial institutions are limited. The total amount of NPLs among RCBs is therefore manageable for China. That said, the rising NPL ratio of RCBs still needs close

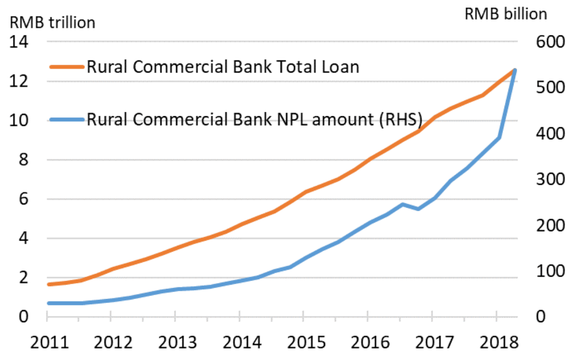
monitoring, as in some areas, credit risk may be prevalent for RCBs as these banks' peers are likely sharing the same risk factors, and some of these banks are already in shortage of capital.

Figure S4.5. Capital Adequacy Ratio



Source: CEIC

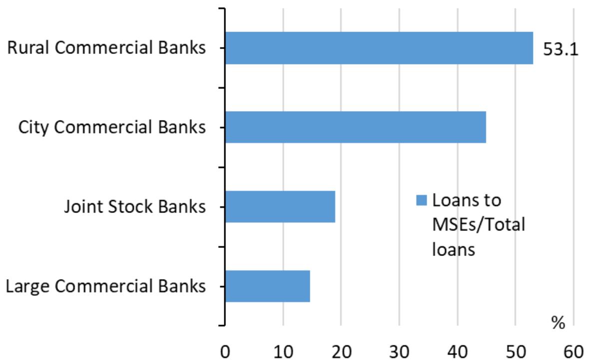
Figure S4.6. Rural Commercial Banks' Loans and NPLs



Source: CEIC

Factors Behind the High NPL Ratio

Figure S4.7. Loans to MSEs as a Proportion of Total Loans



Source: CEIC

7. **A number of RCBs' NPL classification standards were too loose earlier and they are now complying with more stringent rules.** Chinese banks classify loans into five categories: pass, special-mention, substandard, doubtful and loss. The last three kinds were considered NPLs. Such a classification relied excessively on subjective, qualitative judgment and the boundaries between different types of loans can be relatively vague, and it was likely difficult to maintain consistency of classification among different banks. In 2018, CBIRC introduced more quantitative assessment metrics in addition to the qualitative judgment. For example, all 90-day-past-due loans would be considered as NPLs. For most banks, especially the large ones, 90-day-past-due loans had always been considered as NPLs, but this wasn't the case for many of the small RCBs. With more stringent rules on NPL classification, a more accurate NPL number has emerged.

8. **RCBs' clients tend to have weak credit profiles.** While some large RCBs' clients are more similar in profile to the clients of city commercial banks and joint stock banks, most of the other RCBs' clients are rural borrowers and urban MSEs. Figure S4.7 shows that about 53.1 percent of RCBs' loans are to MSEs, which is much higher than the MSE share of other types of banks' loans. These borrowers are of higher credit risk and are more sensitive to an economic slowdown. Most of the RCBs with a sharp increase in NPL ratios are also located in local economies with overcapacity, struggling loan guarantee companies, local government debt problems, and high real estate leverage. All of these have had an impact on the quality of banking assets.

9. **Corporate governance and credit policy in some RCBs are weak.** The credit approval process of RCBs can be fast and the decision-making is flexible. However, some RCBs may have insufficient checks and balances and the credit policy and decision-making process may not be consistent. Some provincial associations did not put in place safeguards around risk management and control, resulting in the continuous accumulation of risks and an increase in the number of high-risk institutions. On August 2018, based on its onsite investigations, CBIRC imposed administrative penalties on five provincial associations for violations of laws and regulations.[25]

10. **Rural banks have less means to dispose NPLs.** Larger banks are more likely to be able to sell NPLs to Asset Management Companies (AMCs) and to dispose NPLs through NPL securitization, due to their economies of scale; and because AMCs have a better understanding of large banks. RCBs, on the other hand, have less means to dispose NPLs. Moreover, AMCs do not show a strong inclination to purchase small business NPLs.

Policy Developments and Recommendations

11. **Authorities have introduced stricter NPL classification, which is welcomed.** Once the real NPL exposures are made public, banks will have greater motivation to solve them. This will also enhance RCBs' corporate governance and credit policies.

12. **Authorities have urged RCBs to improve corporate governance, which is welcomed.** In April 2018, the CBIRC announced eight key points of banking supervision in 2018, titled "Rectification of Banking Sector Misbehavior in 2018", of which corporate governance was ranked as the top priority. Shareholders and various committees, such as the risk committee, will play a more active role in decision-making processes. By doing so, banks' decision-making power will not unduly rely on some individual senior management. This is welcomed to let RCBs become modern banking entities and enhance risk management practice.

13. **Regulators and provincial associations are closely monitoring high RCB NPL ratio prevalent in some districts.** While the problematic RCBs are of small scale and the risk is not systemic and nation-wide, regulators and associations in some districts are closely monitoring whether some RCBs' high NPL ratios are a precursor to more serious problems. They need to identify and study the risks and prepare credible resolution plans, if needed.

14. **Regulators have been encouraging RCBs to reserve and raise capital and increase NPL provisions, which is welcomed.** Since 2017, banking regulatory bureaus around China have successively issued regulatory requirements, and urged RCBs to cut dividends, increase reserves and loan provisions. This is welcomed. Some RCBs have also been exploring other approaches to raise capital. Regulators encourage RCBs to bring on board private enterprises, listed companies, SOEs and strong financial institutions as shareholders, for various reasons. First, they can provide capital. Second, the participation of these external

[25] http://www.cbrc.gov.cn/chinese/newShouDoc/A6756B856F64496EA953723B2310F28C.html

investors can provide checks and balances in terms of corporate governance. Regulators should also urge banks to raise non-core Tier-1 and Tier-2 capital, if raising core Tier-1 is difficult for the time being. And finally, in order to effectively disperse risks, RCBs should preferably look for non-bank investors.

15. **Local gov bailout is an possibility but constrained by resources, and not an optimal market-based approach.** Problematic RCBs are mostly located at the county level, and they are often closely related to local governments in counties where the economy has been slowing. As a last resort, local governments may need to arrange for shareholders including themselves to inject capital. However, these local governments may also have limited fiscal resources. To improve the corporate governance of RCBs, market-based mechanisms such as seeking strategic investors with expertise in banking should be explored first.

16. **Mergers and acquisitions (M&A) can be encouraged but the key is improving corporate governance.** The weaker RCBs can potentially be merged with or acquired by well-capitalized banks with sound corporate governance. Separately, the management of the RCBs with weak corporate governance should be replaced. In some cases, the authorities may need to provide short-term guarantees to facilitate the M&A. While the deposits insurance scheme is already in place, the option of letting a bank fail should be resorted to with caution, as it has rarely happened in China, making it hard to predict the markets' reaction.

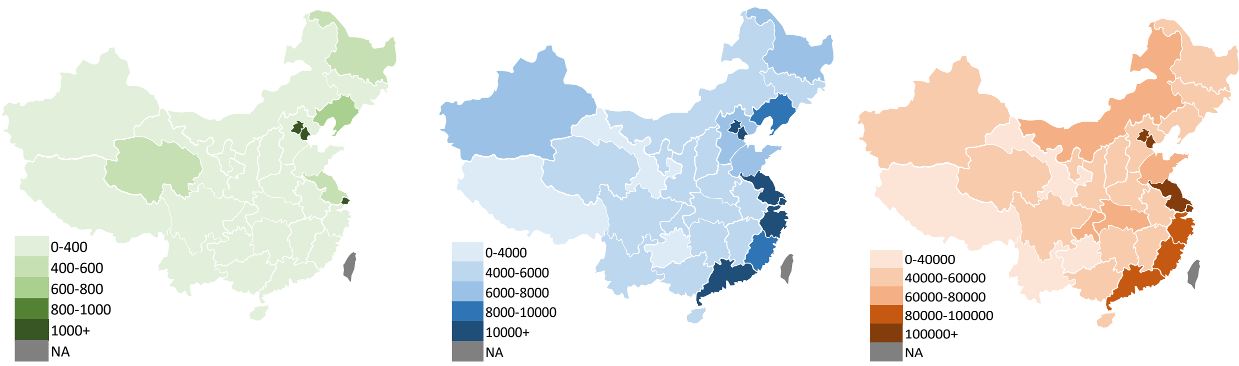
5. China's Regional Disparities

1. The widening regional disparities that have emerged within China as the country reformed and developed itself over the past forty years are outcomes that result naturally from the tendency for economic activities to gravitate towards dynamic growth areas such as cities with industrial zones, and the multiple challenges they pose are probably best met by policies focusing on strengthening social safety nets and access to life-improving services.

2. **China's rapid growth resulting from forty years of reform and opening-up underlies the widening regional disparities within China.** China was a low-income country in 1978, but became a middle income and the second largest economy in the world by 2011. Since then, it has continued moving up within the middle-income bracket. However, regional disparities widened together with growth and overall economic development. From being "equally poor" in 1978, different geographical parts of China drifted much further apart in per capita income in the two decades to 1998, and that did not seem to improve in the following two decades to today, as shown in Figure S5.1. International experience suggests that beyond certain tipping points – which may differ across countries – such disparities can impinge on overall growth, apart from giving rise to socio-political tensions.

Figure S5.1. GDP Per Capita (RMB)

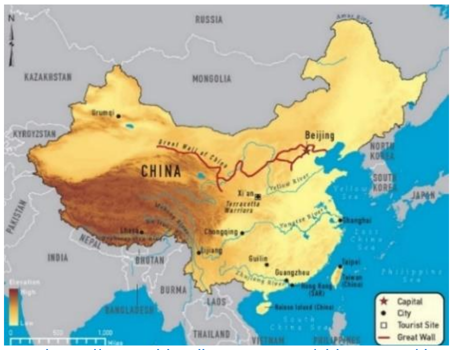
1978 **1998** **2017**



Source: NBS, CEIC

3. **One of the most important factor is geographical location.** Figure S5.2 shows that provinces with lower incomes are located in land-lock areas and share borders with low-income neighboring economies. Several are also located in mountainous or desert areas, which are not conducive for urbanization and manufacturing activities. Furthermore, it is costly to develop infrastructure and increase connectivity to other regions. On the other hand, cities located along the coastal areas are suitable for urbanization and infrastructure development including sea ports, and they are also close to much richer neighboring countries. For example, the southeastern coastal provinces such as Guangdong,

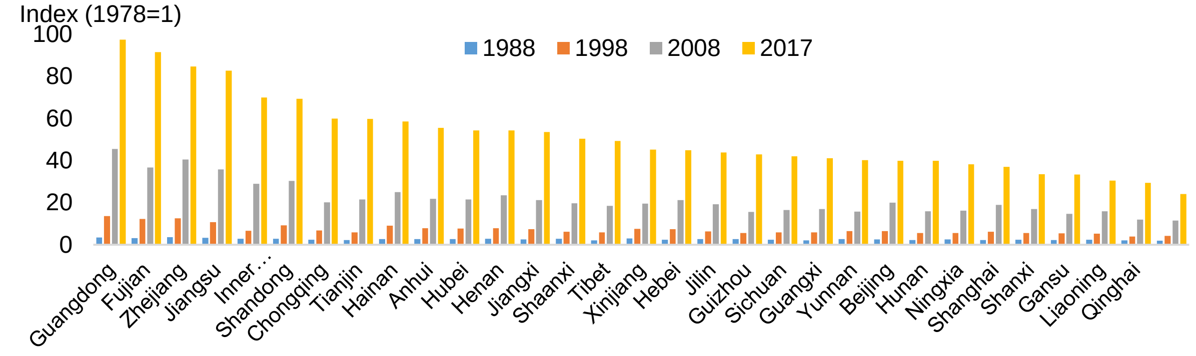
Figure S5.2. Geographical Map of China



Source: https://www.chinadiscovery.com/china-maps/rivers-map.html

Fujian, Zhejiang and Jiangsu were better-placed to benefit from China's opening-up to international trade, or even to become manufacturing hubs to meet growing domestic demand in a large and rapidly-growing country.

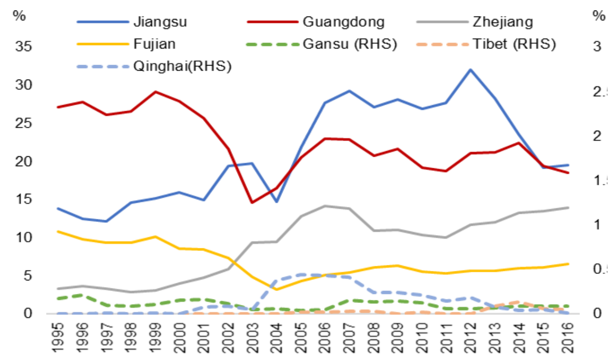
Figure S5.3. GDP Index (1978=1) by Province



Source: NBS, CEIC, AMRO Staff Calculation.

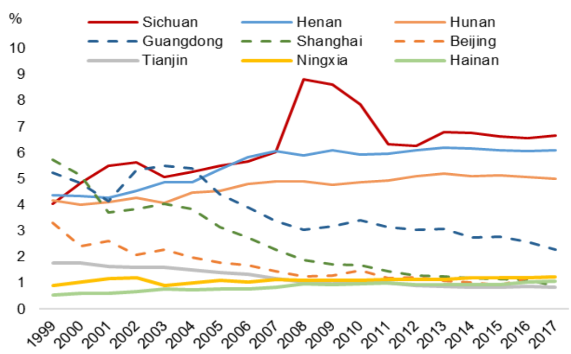
4. **The role of local governments in leveraging on geographical advantages has also been important.** It was a conscious strategic policy by the government to let the populous coastal areas develop quickly, to lift up the country's overall growth and development. In many cases, local officials in these areas were more proactive in attracting FDI, and facilitated the setting-up of local enterprises which process manufactured goods and re-export them. FDI combined with domestic (local) investments to spur these provinces' rapid development as the country pursued the manufacturing-for-exports growth strategy to great effect. The outcomes have been stark. Guangdong, Fujian, Zhejiang and Jiangsu have been the fastest-growing provinces in China in the last 40 years (Figure S5.3), as well as the strongest performers in utilizing FDI (Figure S5.4). Their experience contrasts drastically with laggard inland provinces such as Gansu and Qinghai (Figures S5.3 and S5.4).

Figure S5.4. Share of Total Utilized FDI (Selected Provinces)



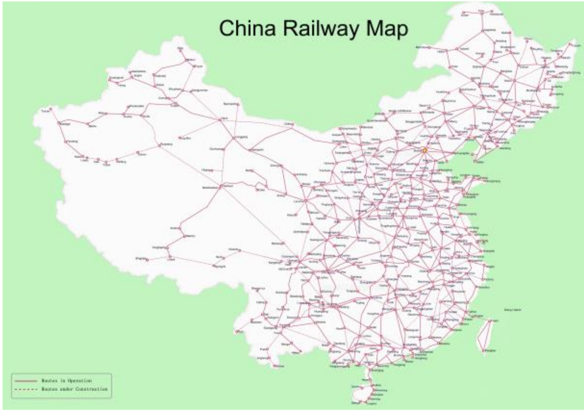
Source: MOC, CEIC, AMRO Staff Calculation.

Figure S5.5. Share of Total Central Government Transfers (Selected Provinces)



Source: MOF, CEIC, AMRO Staff Calculation.

Figure S6.6. China's Railway Map (2018)



Source: https://www.travelchinaguide.com/images/map/train/railway.pdf

5. **However, once regional disparities develop, a vicious cycle tends to kick in, whereby they appear to have become entrenched and perpetuated by chronic underdevelopment and drainage of human capital and prolonged lack of connectivity to other more prosperous parts of the country.** As coastal areas boomed and special economic zones[26] set up within these provinces spurred their development even further, more and more skilled and unskilled workers and enterprising businessmen gravitated towards these areas in search of opportunities. The flip side was a hollowing-out of the poorer provinces – workers from the farms to become migrant workers in the coastal provinces but also skilled and unskilled workers from established industries in search of higher wages. In turn, sluggish business environments and subdued tax revenues meant local governments had less financial resources – and perhaps also less motivation – to address both economic stagnation and related challenges ranging from persistently-unprofitable SOEs and widening deficits in pension systems, to chronic environmental pollution. In addition, despite increased physical connectivity through railways and roads, a very recent (2017) ADB report highlights that China's in-country infrastructure even today lags far behind that found in advanced countries. For example, the stock value of "quality" roads in the China is estimated at US$283 million (in 2015 prices) per square kilometer – which the ADB suggests is a mere 22% of the OECD average in 2011, and this is mainly due to the gaps in the quality and connectivity of regional roads. Figure S5.6 shows that railways are still sparse in the further inland areas.

6. **China's government has always been mindful about supporting less-developed regions with stepped up policy efforts.** The Government has been acutely aware of regional disparities and has taken many initiatives to address them. For example, **t**he Strategy of Development of the West Regions (2000), together with the Strategy of Revitalization of the Northeast (2004) and the Strategy of Development of Central China (2004) attempted to collectively open up more opportunities for poorer provinces to catch up. Over the years, the central government has also intentionally reduced the amount of fiscal transfers to richer provinces and increased allotments to poorer provinces, especially those with larger populations, heavier social responsibilities, or weaker financial conditions.

7. **While efforts to narrow the disparities between the poorer regions and the richer regions should be continued, it is just as important to recognize the need for the government to develop a nation-wide social security program that ensures a minimum**

[26] The four SEZs established in 1980 and the Pudong New District established in 1992 were key in supporting the early-stage development of Guangdong, Fujian and Shanghai.

standard of living and provides basic social services for people in the poorer regions. While policies aimed at facilitating growth catch-up have been helpful, it is unlikely for these poorer areas to fully catch up as the coastal areas will continue to advance more rapidly. Labor migration from the laggard areas to richer cities will also continue alongside increased urbanization. As a result, policy should focus on making sure that people who remain in those areas enjoy a certain minimum standard of living through a more comprehensive social security system. In particular, they should have access to good healthcare services and obtain better support from stronger social safety nets. Better education is also important, so that the young people of those regions can have better work opportunities.