



China Economic Monitor

Q2 2018

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Note: Unless otherwise stated, data used in this report is from Chinese government agencies such as the National Bureau of Statistics (NBS), the People’s Bank of China (PBOC), the Ministry of Commerce (MOFCOM) and the General Administration of Customs (GACC).

Executive summary

China's economy got off to a strong start in Q1 with GDP growth of 6.8% YOY, which was the same as that in Q3 and Q4 2017, and higher than the government's target of 6.5%.

It is worth noting that while the 2018 economic growth targets announced in this year's Government Work Report were the same as last year, the goal of "achieving better results in practical work" was removed, marking a further de-emphasis of the importance of growth rates as China's economy continues to deepen its transition from 'high-speed' to 'high-quality' development.

In Q1, the country's economic growth was characterised by the following:

- The rapid development of the service sector continued to underpin the steady growth in GDP.
- The high-tech sector performed well. The industrial structure continued to be upgraded and there was an increase in capacity utilisation rates.
- Investment in public fixed assets was not as high as the same period last year, but private investment improved. Growth in infrastructure investment and manufacturing investment slowed and there was a rebound in real estate investment.
- Growth in consumption dropped below double digits but continued to maintain rapid growth. There was strong growth in online consumption, and its proportion of overall consumption hit a record high.
- Imports and exports continued to grow, but the trade surplus narrowed. Escalating Sino-US trade friction increased uncertainty over a recovery in exports.
- There was continued strengthening of financial regulation, as off-balance-sheet financing was brought back to the balance sheet and the overall growth rate of total social financing dropped.
- On 17 April, for the first time in over two years, the People's Bank of China (PBOC) cut the deposit reserve ratio of financial institutions in order to strengthen financial support for small and micro enterprises and increase the stability of funds in the banking system; however, there was no change in the policy direction of pursuing a stable and neutral monetary policy.

Looking ahead to economic trends this year, we expect some moderation in China's overall economic growth. On the whole, however, growth will remain robust:

- Improvements in economic structure have enhanced the growth resilience of the country's economy.
- The increased profitability of enterprises will boost the recovery of manufacturing investment.
- Tax cuts and targeted support for small business financing will help spur economic activity.
- Consumption is playing an increasingly important role in economic growth, and will become a growth stabiliser.

In addition, companies also need to focus on negative factors that may affect economic growth, such as:

- Regulation of local government financing and tightening of government expenditure, which may lead to a slowdown in infrastructure investment

- Pressure on export recovery as a result of increased trade friction between China and the US and the appreciation of the RMB
- Increases in the costs and difficulties involved in financing for some enterprises due to financial deleveraging.

Special topic: Life sciences

An ageing population, high incidence of chronic diseases, changing habits and customs, and the rise of the urban middle class are creating higher demands on China's life sciences industry. As a result, China's life sciences market presents significant growth prospects.

The country's life sciences industry is at a critical stage in its transformation and upgrading, and is characterised by the following:

- Accelerated R&D in innovative drugs, which is due to greater investment and policy support in this area.
- While developing innovative drugs, China will also strengthen the quality control and consistency management of generic drugs.
- Driven by the growth of the global digital economy and demand from the industry, China's life sciences industry is being changed and impacted by digitalisation, and is embracing this new wave of digitalisation.
- Chinese life sciences companies are increasingly integrated with the international community, and expanding their global outreach.
- Rapid growth in Chinese contract research organisations (CRO) is expected.

Domestic and overseas capital markets have also taken measures to welcome fast-growing biomedical and biotechnology companies, creating more favourable conditions for the financing of these companies. Capital markets in the US, Hong Kong and mainland China have all opened their doors to innovative biotech companies. For example, on 30 March 2018, with the approval of the State Council, the General Office of the State Council seconded a China Securities Regulatory Commission (CSRC) report entitled *Several Opinions on Launching Pilot Projects for Issuing Domestic Shares or Depositary Receipts for Innovative Enterprises*, which encouraged innovative companies to raise money within China by issuing shares or through Chinese Depositary Receipts (CDR).

On 24 April, the Hong Kong Stock Exchange issued a consultative summary of the listing system for companies from emerging and innovative industries. The aim is to provide a desirable financing platform for companies involved in biotechnology and other sectors of the new economy. The support from capital markets will help meet demand for long-term, large-scale funding for drug development, further reducing the financial pressure on drug companies as a result of huge R&D investment and thus improving the quality and level of innovation for drugs. Pharmaceutical innovation, meanwhile, will help inject new vitality into economic development.

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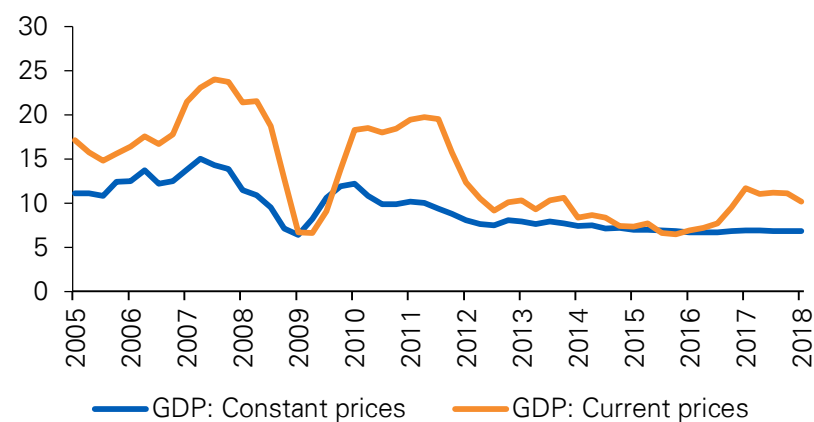
Economic trends



Stable and relatively fast economic growth, continued improvement in economic structure

In Q1, the national economy got off to a strong start as GDP increased by 6.8% YOY, the same as in Q3 and Q4 2017. Nominal GDP increased by 10.2% YOY, a decrease of 0.9 percentage points from Q4 2017, but still maintained a pace of double-digit growth. This indicates that corporate profits remain strong, but earnings growth may be weaker.

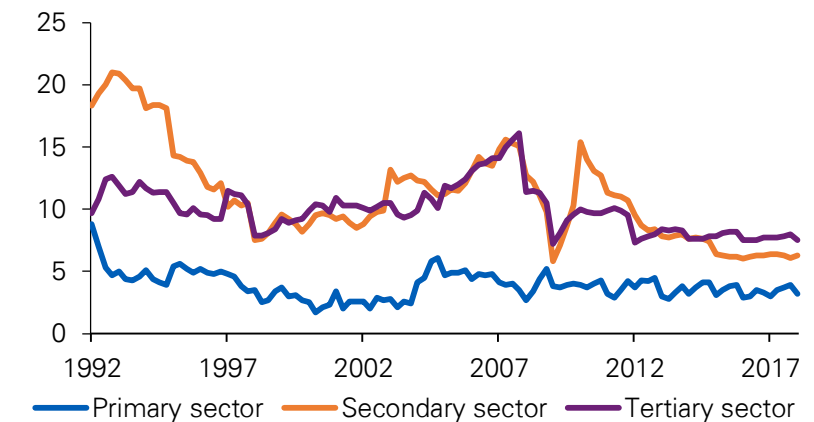
Figure 1: GDP YOY, %



Source: Wind; KPMG analysis

From the output side, the growth rate of the tertiary sector (the service sector) stayed relatively high, with a YOY increase of 7.5%. This was, however, lower than the 8% rate for the entire 2017. The growth rate of the secondary sector was 6.3% YOY, a slight rebound compared to 6.1% for the whole of 2017. The primary sector grew 3.2% YOY. In terms of contribution to GDP growth, in Q1 the service sector boosted economic growth by 4.2 percentage points, which was slightly higher than in 2017. The secondary sector boosted economic growth by 2.5 percentage points, the same as the whole of 2017 and the same period last year.¹

Figure 2: Growth rate of three major economic sectors, YTD, YOY, %

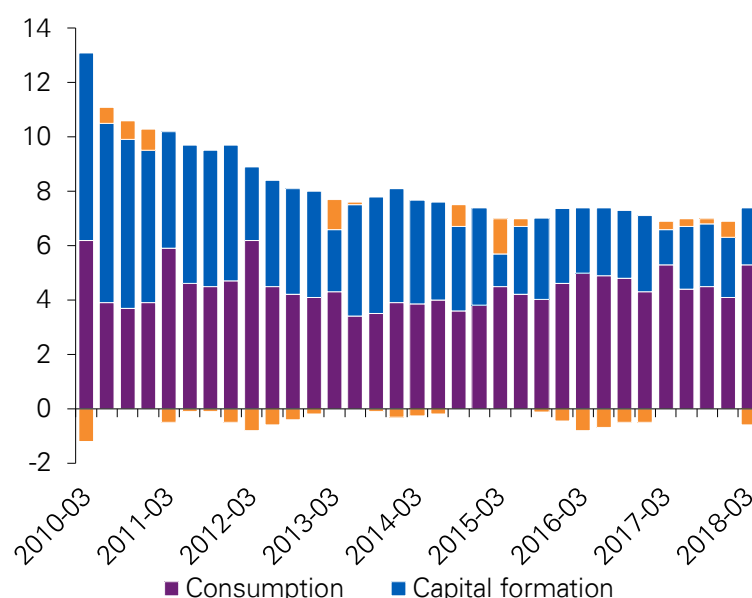


Source: Wind; KPMG analysis

¹ The primary sector includes agriculture, forestry, fishing, mining, quarrying, and the extraction of minerals. The secondary (or manufacturing) sector includes petroleum refining, steel and iron manufacturing, non-ferrous metal refining, food processing, etc. The tertiary (or service) sector includes industries that, while producing no tangible goods, provide services or intangible gains or generate wealth. Examples would include finance, wholesale, transportation, consulting, medical services, etc.

From the demand side, in Q1 the contribution of external demand to GDP growth turned negative (a drag on economic growth of 0.6 percentage points), while the contribution of domestic demand to growth increased significantly. Of this, capital formation drove GDP growth by 2.1 percentage points, roughly the same as in 2017 and 1.3 percentage points higher than the same period last year.² Consumption continued to boost GDP growth, driving growth by 5.3 percentage points.³

Figure 3: Contribution to GDP growth by expenditure, YTD, YOY, %



Source: Wind; KPMG analysis

In Q1, industrial output grew by 6.8% YOY, which was equal to the same period in 2017 and a slight 0.2 percentage point rebound compared to the whole of 2017. There was strong growth in new economic sectors and continued improvement of output structure. High-tech and equipment manufacturing output increased by 11.9% and 8.8% YOY respectively, faster than the overall industrial output by 5.1 and 2.0 percentage points respectively. Of this, electronic equipment manufacturing, including computer, communications and other electronic equipment, pharmaceuticals and special equipment, maintained double-digit growth; in contrast, traditional industries such as coal mining and washing, ferrous metals ore mining and textiles maintained relatively low growth rates or experienced negative growth.

Figure 4: Industrial output, YOY, %

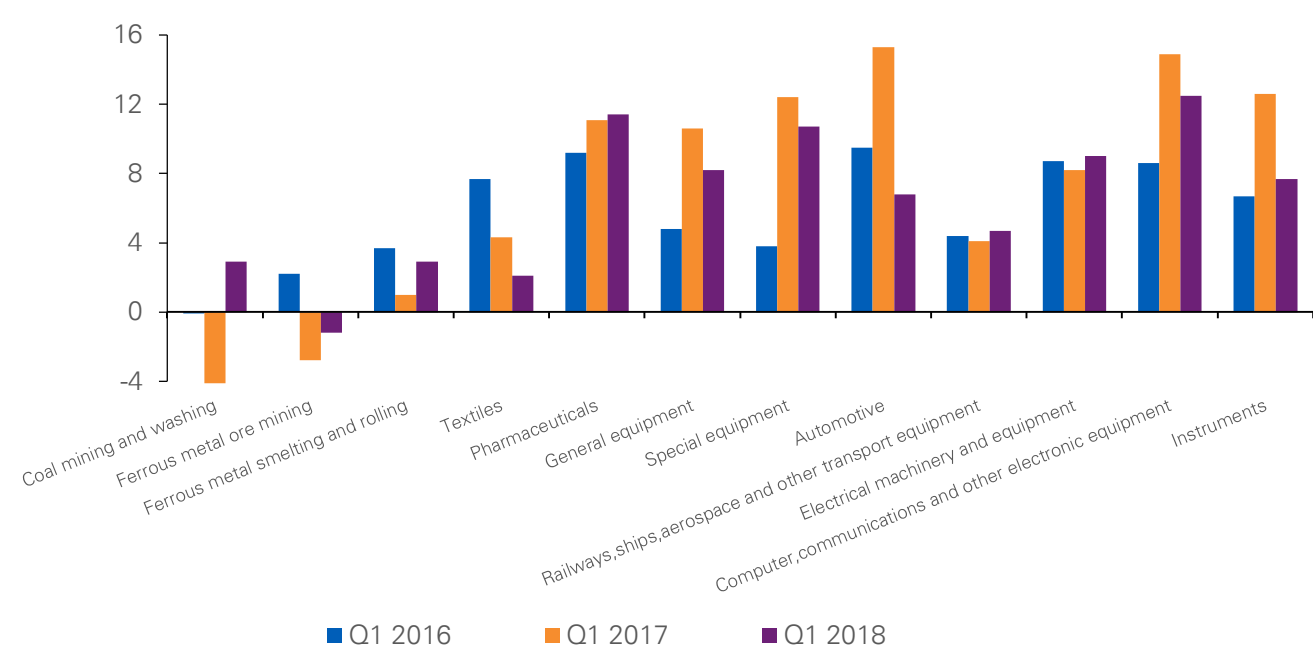


Source: Wind; KPMG analysis

² Investment data shows that the growth of fixed asset investment (FAI) in Q1 was 1.7 percentage points lower than the same period last year, which the National Bureau of Statistics explains as due to “the increase in the amount of inventory in the circulation chain contributing to a significant increase in the total capital formation contribution rate.” For details, please refer to: ‘Dong Lihua: China’s economy continued to grow steadily in the first quarter.’ National Bureau of Statistics of the People’s Republic of China, 19 April 2018, Note: Gross capital formation refers to the net amount of fixed assets and inventories acquired over a certain period of time. It includes total fixed capital formation and inventory increases.

³ The contribution of consumption to GDP growth has remained above 50% since Q4 2013.

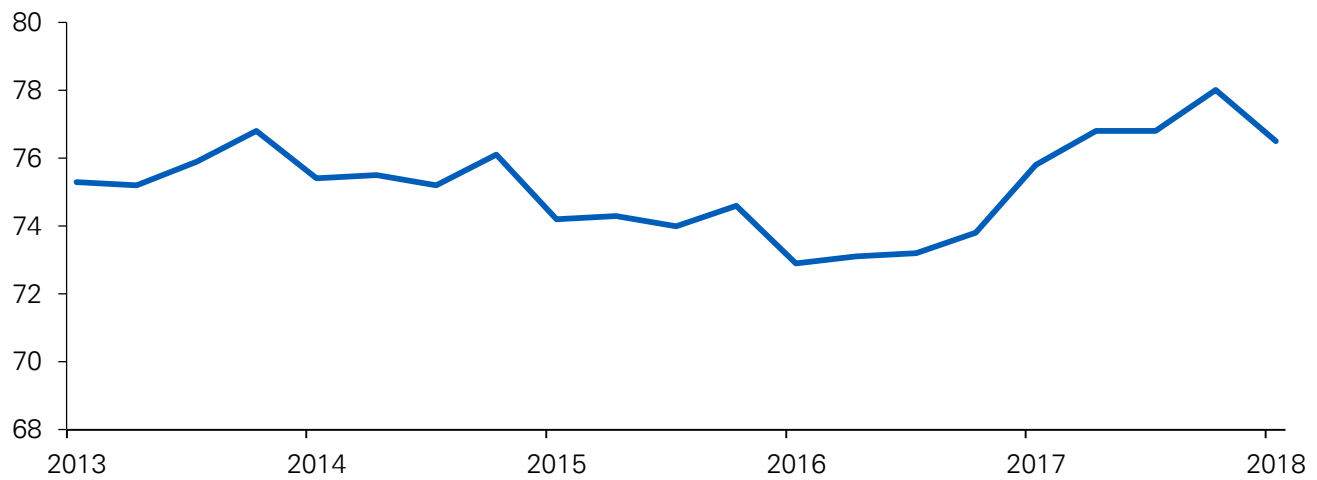
Figure 5: Growth in industrial output, selected sectors, YTD, YOY, %



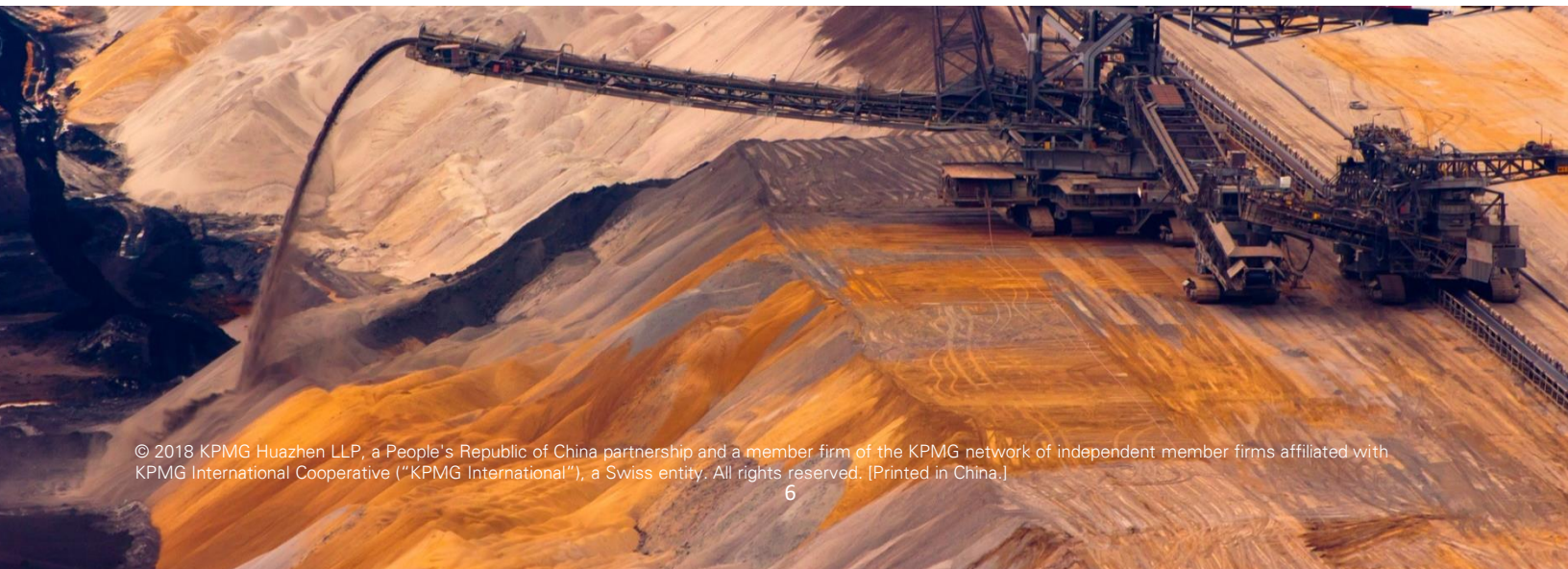
Source: Wind; KPMG analysis

Capacity reduction policies have achieved significant results, with capacity utilisation rates continuing to increase over the past two years. In Q1, the industrial capacity utilisation rate was 76.5%, which was 3.6 and 0.7 percentage points higher than the corresponding periods in 2016 and 2017 (72.9% and 75.8%) respectively. Capacity utilisation rates for the coal mining and washing industry increased from 65.4% in Q1 2017 to 71.2% in Q1 2018, while the utilisation rate of the ferrous metal smelting and pressing processing industry increased from 73.7% in Q1 2017 to 76.9% in Q1 2018.

Figure 6: Change in industrial capacity utilisation, %



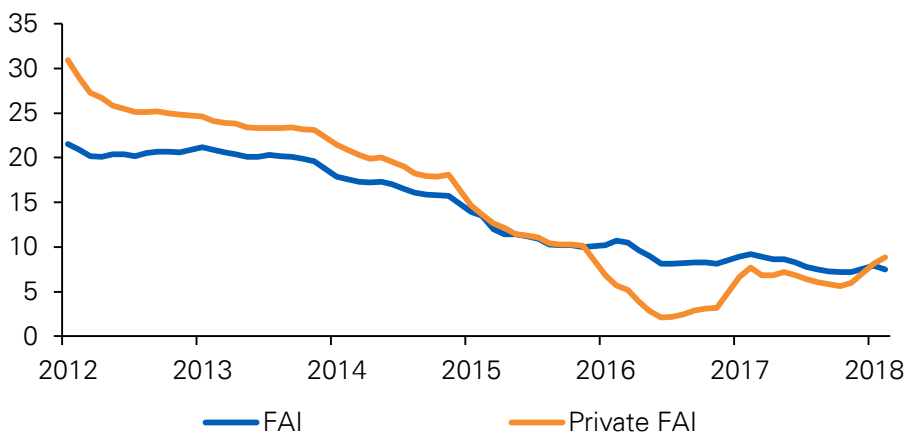
Source: Wind; KPMG analysis



Rebounding real estate investment activity, supporting a modest recovery in investment growth

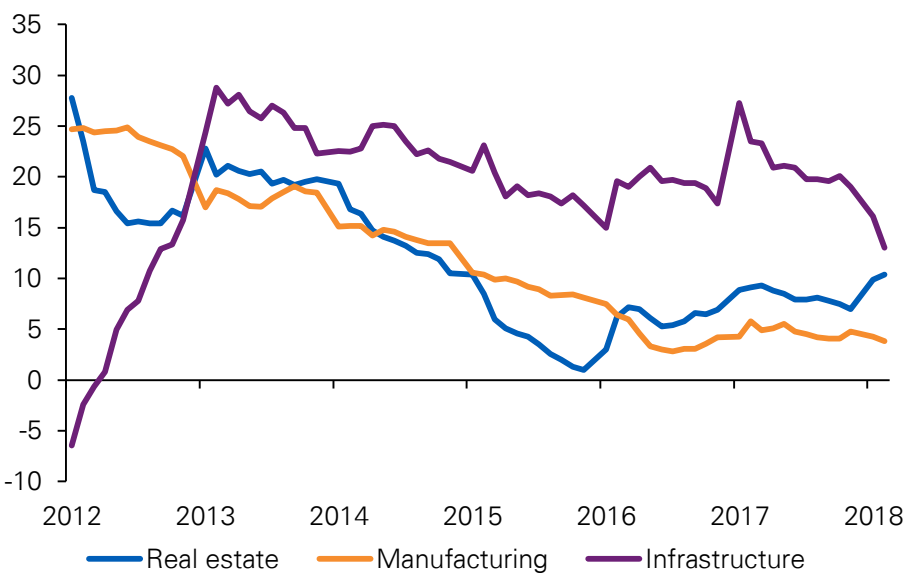
In Q1, investment in fixed assets (FAI) across the country increased by 7.5% YOY, an uptick of 0.3 percentage points compared to 2017. Private fixed asset investment rebounded by 8.9% YOY, an increase of 2.9 percentage points compared to 2017.

Figure 7: Fixed asset investment: Accumulated YOY, %



Source: Wind; KPMG analysis

Figure 8: Fixed asset investment by sector: Accumulated YOY, %



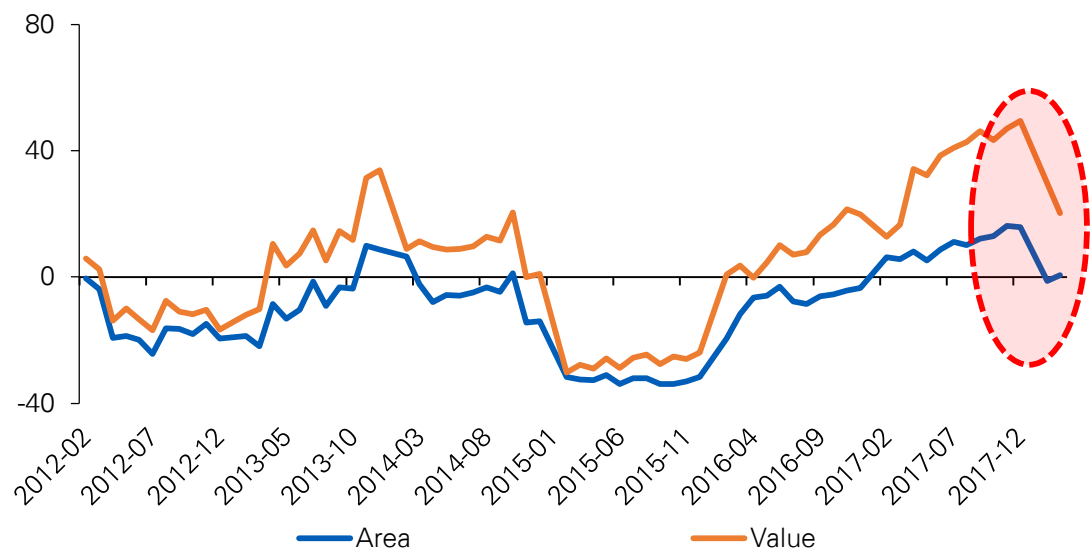
Source: Wind; KPMG analysis

Specifically, manufacturing investment in Q1 increased by 3.8% YOY, which was 1 percentage point lower than the whole of 2017. Historically, corporate profits are a good indicator of manufacturing investment, leading by about one year. In 2017, the profits of industrial enterprises increased by 21% YOY. We expect that investment in the manufacturing industry will gradually pick up in 2018.

Infrastructure investment increased by 13.0% YOY in Q1, a drop of 6 percentage points compared to the whole of 2017. This is connected to recent regulations on local government financing and the weakening of active fiscal policy.⁴ It is expected that investment in infrastructure will continue to come under pressure during the year.

Investment in real estate development increased by 10.4% YOY in Q1 and the growth rate hit its highest level since February 2015. The current rebound in real estate investment has been driven by the decline in real estate inventory since the second half of last year and a substantial increase in land purchases. However, as new real estate growth continues to cool, the year to date growth rate of commercial property real estate sales has fallen for eight consecutive months, and the growth rate in March was the lowest since June 2015. We expect that the current expansion in real estate development investment might not be sustainable.

Figure 9: Real estate development land acquisition, YTD, YOY, %

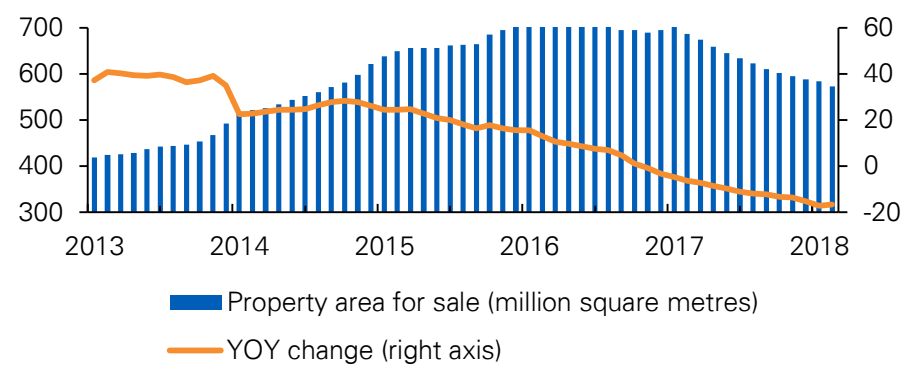


Source: Wind; KPMG analysis

⁴ According to the requirements of the 2018 Government Work Report, this year's deficit rate target is 2.6%, which is 0.4 percentage points lower than last year's target.

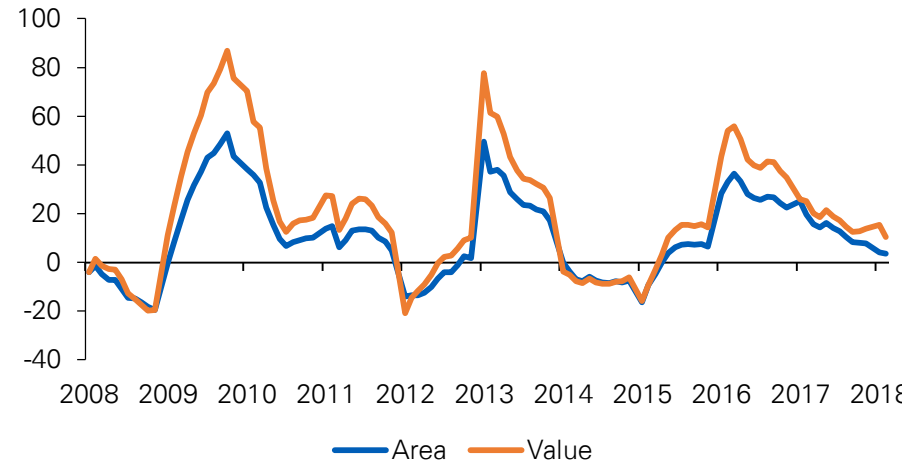


Figure 10: Property area for sale



Source: Wind; KPMG analysis

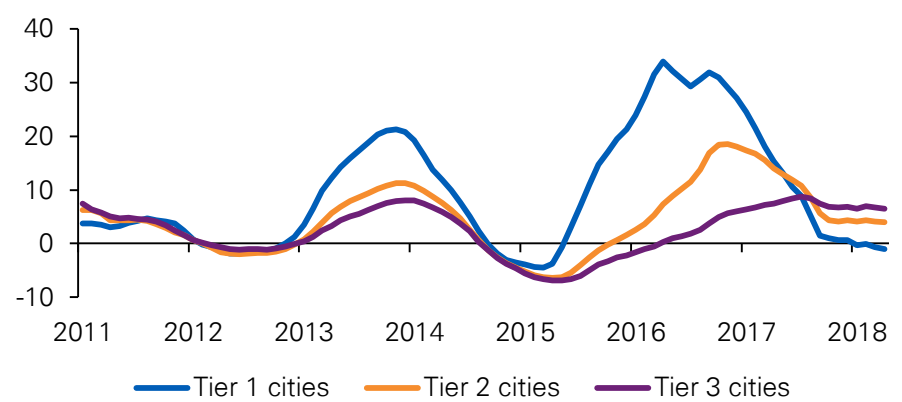
Figure 11: Sales of property, YTD YOY, %



Source: Wind; KPMG analysis

Residential property prices continued to decline in 2018 Q1. The price index of new residential property in first-tier cities experienced negative growth for three consecutive months, dropping by 0.6% YOY in March. The price index of residential property in second- and third-tier cities increased by 4.1% and 6.7% YOY respectively. Both of these figures were 0.2 percentage points lower than December last year.

Figure 12: New residential property price index, YOY growth, %

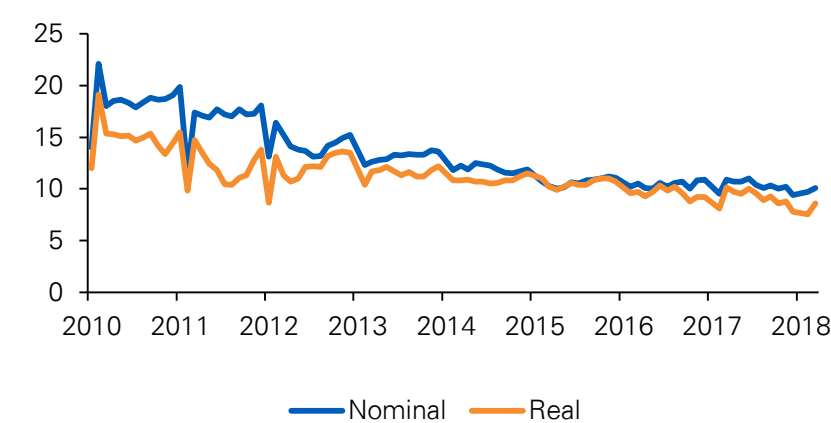


Source: Wind; KPMG analysis

Slight drop in consumption growth

In Q1, the total volume of retail sales of consumer goods increased by 9.8% in nominal terms, which was 0.4 percentage points lower than for the whole of 2017. Real retail sales showed an increase of 8.07% YOY, a downtick of 0.95 percentage points from 2017. Total retail sales of consumer goods in March rose by 10.1% YOY as growth started to pick up.

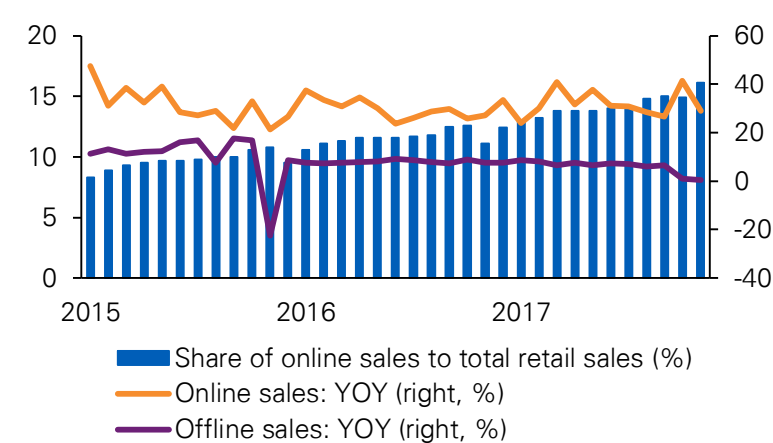
Figure 13: Total retail sales of consumer goods, YOY, %



Source: Wind; KPMG analysis

Online consumption continued to maintain rapid growth. In Q1, online retail sales of physical goods grew by 34.4% YOY, an increase of 6.4 percentage points over 2017; this accounted for 16.1% of total retail sales of consumer goods, an increase of 1.1 percentage points compared to the end of 2017. In March, online retail sales of physical goods increased by 29.1% compared to the same period last year; offline retail sales of physical goods, in contrast, only increased by 0.4% YOY.

Figure 14: Online versus offline consumption of physical goods



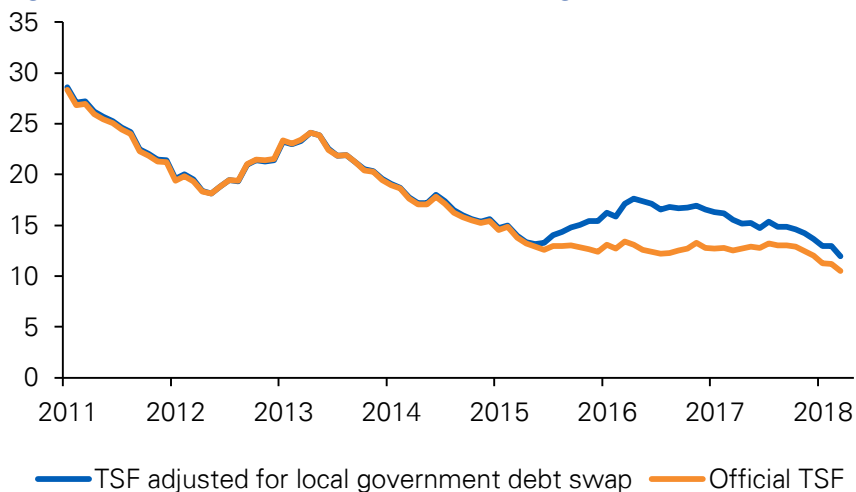
Source: Wind; KPMG analysis

Continued strengthening of financial supervision and a fall in the growth rate of social financing

New total social financing (TSF), a measure of total financing provided to the non-financial sector, totalled RMB 5.58 trillion in Q1, RMB 1.35 trillion lower than the same period last year. In March, the growth rate of TSF stocks dropped to 10.5%, 2 percentage points lower than the same period in 2017. After including local government bond issuances, growth of adjusted total social financing⁵ dropped to 12.1%, which was 3.48 percentage points lower than the same period last year.

Against a backdrop of continued tightening of financial supervision, a large amount of financing demand has been brought from ‘shadow banking’ back to bank lending shown on the balance sheet. In Q1, new RMB loans amounted to RMB 4.85 trillion, accounting for 86.9% of new TSF – significantly higher than the same period in 2017 (65.0%) and 2016 (70.8%). The scale of off-balance-sheet financing has significantly contracted, which has been the main drag on the growth rate of social financing. In Q1, entrusted loans, trust loans and undiscounted bills decreased by a total of RMB 13.35 billion. Reducing shadow financing will help reduce leverage in the financial system and prevent financial risk, but it may also increase financing difficulties for some companies in the short term.

Figure 15: Accumulated total social financing: YOY, %

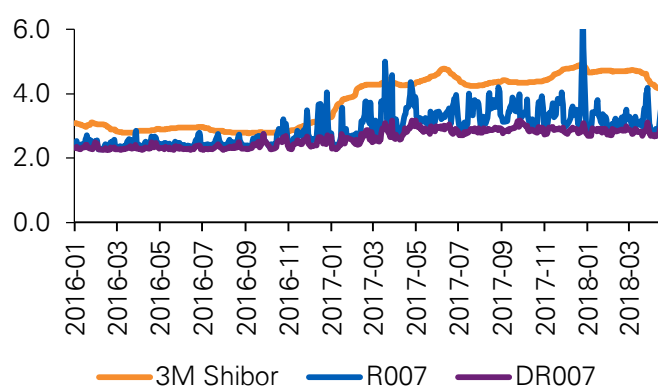


Source: Wind; KPMG analysis

Although the TSF data shows a tightening in the overall financing environment of the real economy, since the PBOC initiated ‘provisional reserve arrangements’ and began strengthening its efforts in open market operations in February, the liquidity in the interbank money market has increased and there has been an improvement in the interbank lending rate and interbank pledged repo-weighted interest rate. On 2 April, the 3-month Shanghai Interbank Offered Rate (3M SHIBOR) was 4.41%, a decrease of nearly 0.4 percentage points since the beginning of the year. The seven-day interbank pledged repurchase-weighted interest rate (R007) on 2 April was 3.03%, a fall of 0.09 percentage points since the beginning of the year.

⁵ According to the requirements of the 2018 Government Work Report, this year’s deficit rate is scheduled to be 2.6%, which is 0.4 percentage points lower than last year’s target.

Figure 16: Interbank market rate, %



Source: Wind; KPMG analysis

On 17 April, the PBOC announced the reduction of the RMB deposit reserve ratio of large commercial banks, joint stock commercial banks, city commercial banks, non-county rural commercial banks, and foreign banks by 1 percentage point from 25 April 2018. On the same day, the above banks will use the funds released by the cuts to repay the Medium-term Lending Facilities (MLFs) they have borrowed from the PBOC in accordance with the order of 'first to borrow, first to repay'. The main purpose of this is to release incremental funds,⁶ increase support for small and micro enterprises, increase the long-term funding of the banking system, and reduce financing costs.⁷

The PBOC's last general reduction in the deposit reserve ratio of financial institutions was on 29 February 2016 (on 1 March 2016, the rate of RMB deposit reserve ratio for financial institutions was broadly lowered by 0.5%). In addition, on 30 September 2017, it also reduced orientation towards inclusive financial services, which was officially implemented in January 2018.

In addressing these cuts, a spokesperson from the PBOC stated that it will continue to implement a stable and neutral monetary policy. Most of the funds released as a result of the cuts were used to facilitate repayment of medium-term loans, and replaced two liquidity adjustment instruments. The remaining small amount of funds was hedged against the tax period in mid-to-late April. As a result, at the same time as the structure of liquidity was optimised, the total amount of liquidity in the banking system remained basically unchanged. In addition, the PBOC will also require associated financial institutions to use the new funds primarily for loans to small and micro enterprises, reducing the financing costs of small and micro enterprises and improving financial services for such businesses. The above requirements will be included in the macro prudential assessment (MPA), which emphasises risk monitoring and regulation for the overall financial system.

In terms of inflation, the consumer price index (CPI) rose by 2.1% in the first quarter, which was higher than the 1.6% increase in 2017. The increase in consumer prices was chiefly due to rising food prices: in Q1, food prices rose by 2%, a rebound from the 1.4% decline for the whole of 2017. Overall, economic fundamentals and currency conditions do not support rapid price increases, and it is expected that the growth rate of CPI will remain stable throughout the year.

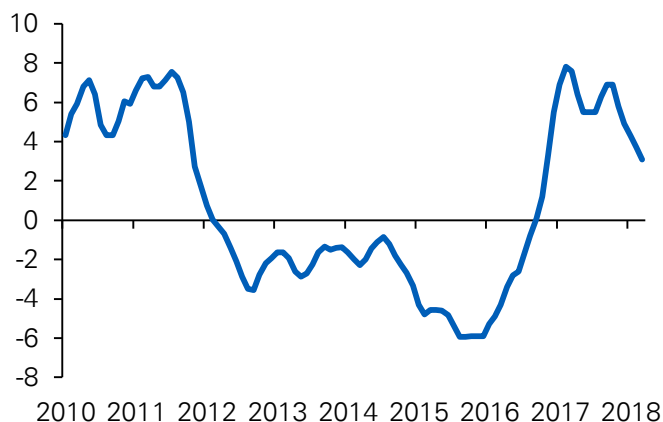
Figure 17: CPI, YOY, %



Source: Wind; KPMG analysis

The producer price index (PPI) continued its downward trend since October last year. It rose by 3.1% YOY in March, which was 0.6 percentage points lower than in February and 1.8 points lower than last December. Looking to Q2, we expect that the PPI may regain stability as the high base effect at the beginning of the year weakens.

Figure 18: PPI, YOY, %



Source: Wind; KPMG analysis

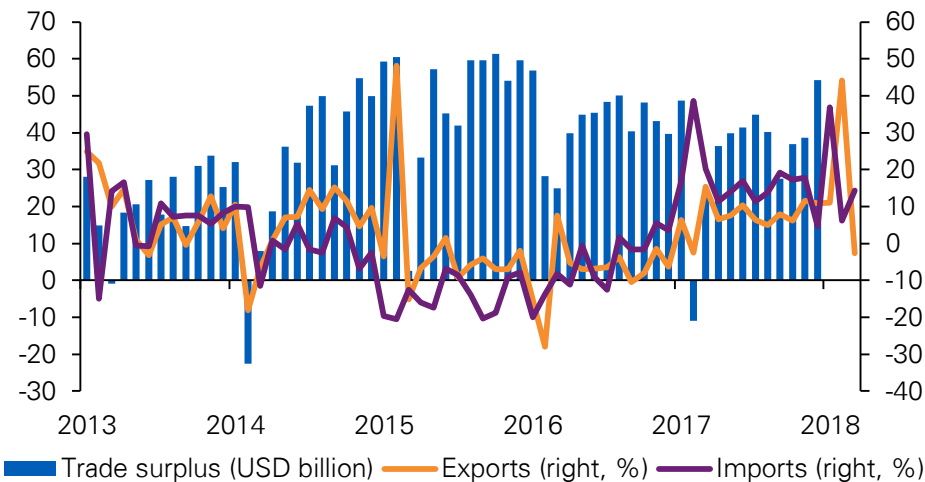
⁶ It is estimated that the current cuts will release RMB 1.3 trillion in liquidity, repay MLF of about RMB 900 billion, and release incremental funds of about RMB 400 billion.

⁷ At present, the interest rate of the PBOC's one-year MLF is 3.3%, while the deposit reserve interest rate is only 1.62%. The reduction of the reserve ratio to replace the MLF will reduce the cost of interest payments for commercial banks, which in turn will reduce the cost of corporate financing.

Shrinking trade surplus and a stronger RMB

In the first quarter, exports grew by 14.1%, imports grew by 18.9%, and the trade surplus was USD 49.34 billion, a YOY decrease of 18.2%. In March, there was a deficit of USD 4.98 billion.

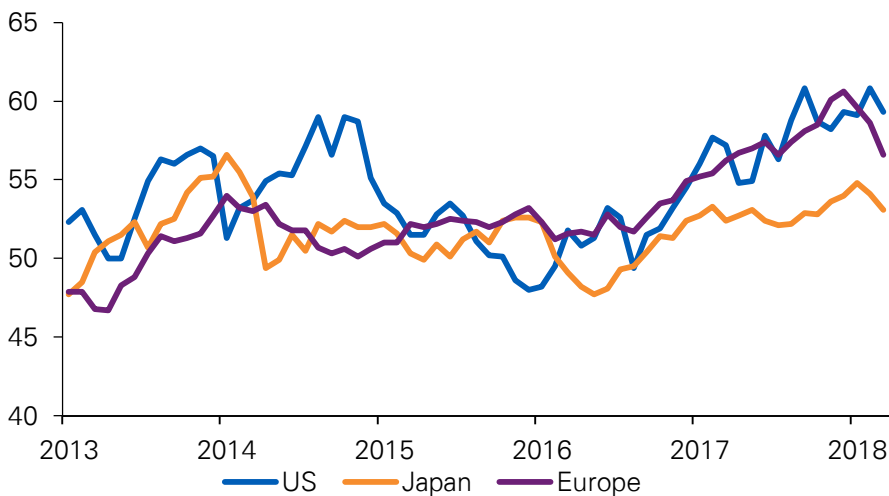
Figure 19: Import and export activities



Source: Wind; KPMG analysis

The International Monetary Fund’s (IMF) *World Economic Outlook* report in April showed that its forecast for global economic growth in 2018 remained at 3.9%. However, in the first quarter, the Purchasing Managers’ Index (PMI) in the eurozone and Japan both declined in varying degrees compared to the end of 2017, while the US manufacturing PMI, although unchanged from 2017, fell slightly compared to February, which may suggest that the momentum of global economic growth is weakening.

Figure 20: Manufacturing PMI for Europe, the US and Japan, index

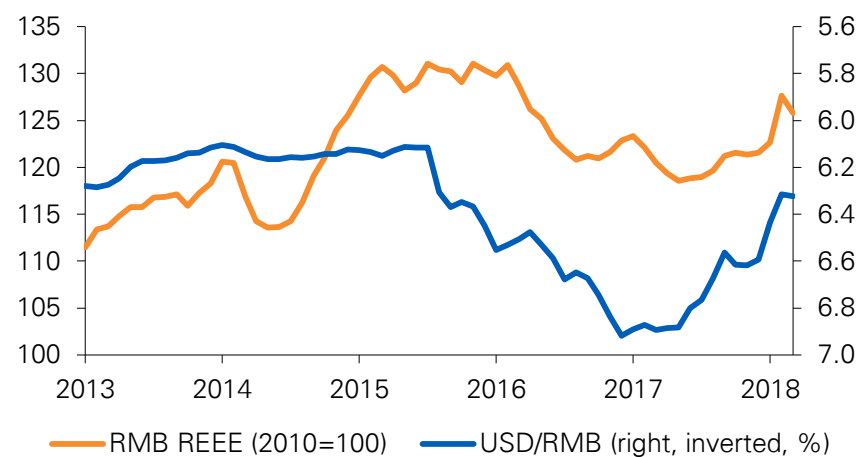


Source: Wind; KPMG analysis

Since March 2018, China-US trade friction has been escalating, adding to the uncertainty of China’s export recovery (for more, see the ‘Policy analysis’ section).

In Q1 2018, the exchange rate of the RMB against the USD appreciated by 3.56%, while the spot exchange rate of the USD against the RMB decreased from 6.4967 at the beginning of the year to 6.2733 at the end of March. Looking at the broader RMB real effective exchange rate, in March, the RMB effective exchange rate (REEE) index was 125.76, a rise of approximately 3.4% compared to the end of 2017.

Figure 21: RMB exchange rate

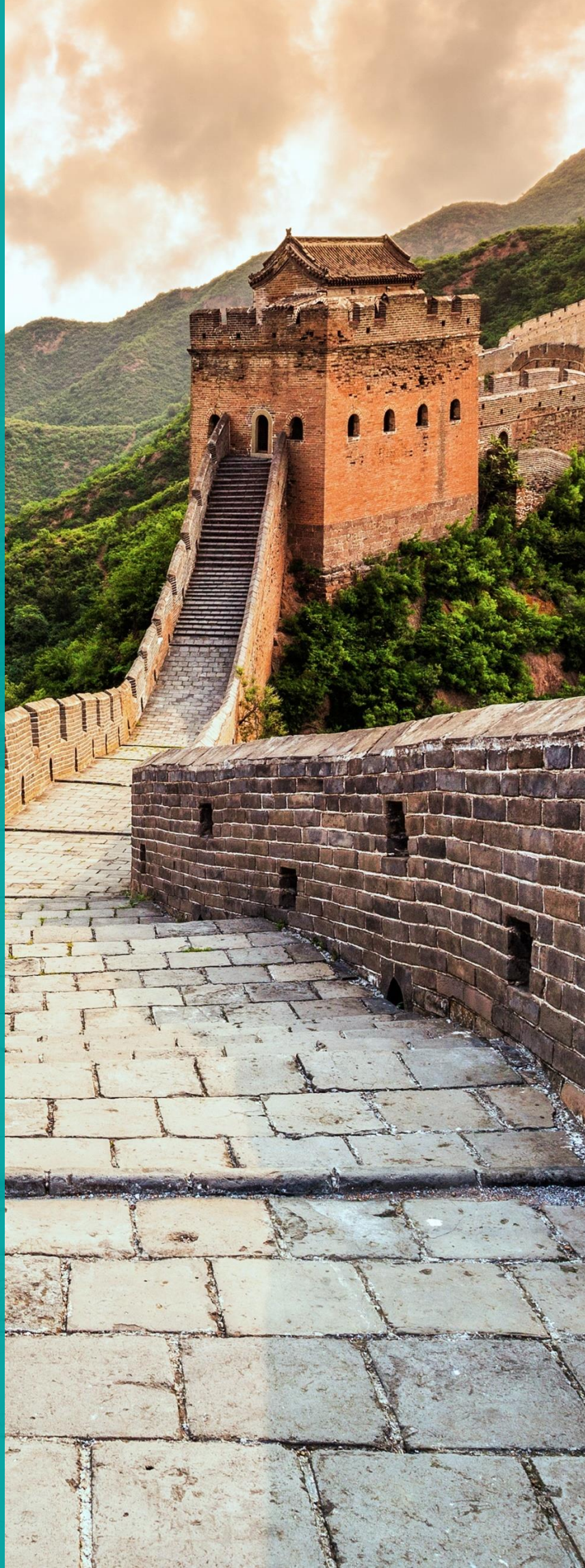


Source: Wind; KPMG analysis



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Policy analysis



'Two Sessions' set growth target for the year

In March 2018, the 'two sessions' – the First Session of the 13th National People's Congress of the People's Republic of China and the first session of the 13th Chinese People's Political Consultative Conference – were held in Beijing. The sessions passed constitutional amendments and new monitoring laws, incorporated the 'scientific outlook on development' and 'socialist thinking with Chinese characteristics in the new era of Xi Jinping' into the constitution, and removed the constitutional restraint that the country chairman and vice chairman can serve no more than two consecutive terms. In addition, the National Supervisory Commission was formed and leaders were elected.

On 5 March 2018, Premier Li Keqiang delivered the Government Work Report, which stated that "to promote the steady growth of foreign investment, we will fully liberalise the general manufacturing industry and expand the areas of telecommunications, medical care, education, pensions, and new energy vehicles".⁸ When answering questions from reporters, Ning Jizhe, Deputy Director of the National Development and Reform Commission (NDRC), stated that in 2018, the NDRC will work with associated departments from the State Council to further revise the Foreign Investment Negative List, and will gradually extend the Foreign Investment Negative List currently piloted in free trade zones throughout the country.⁹ This is the first time that an amendment has been made since nationwide implementation of the Foreign Investment Negative List was initially proposed in 2017.

Table 1: 2018 Major government work objectives

Index	2017 goals	2017 actual results	2018 target
GDP growth	6.5%, strive for more	6.9%	About 6.5%
CPI	About 3%	1.6%	About 3%
Broad money growth (M2)	12%	8.2%	Not set
Social financing growth	12%	12%	Not set
New employment in towns (million people)	Min. 11	13.51	Min. 11
Shantytown housing renovation (million units)	6	6.09	5.8
Capacity reduction, steel (million tons)	Approx. 50	50 or more	30
Capacity reduction, coal (million tons)	Min 150	250	Approx. 150
Capacity reduction, coal-fired (million kilowatts)	50 or more	65	Close coal-fired power generating units with a capacity less than 300,000 kilowatts that fail to meet standards
Tax/Fee reduction (RMB billion)	Approx. 550 Tax: 350 Expenditure: 200	1023.4 Tax: More than RMB 380 billion Expenditure: Expected to be RMB 643.4 billion	1100 or more Tax cut: Over 800 Fees reduction burden: Over 300
Fiscal deficit rate	3%	Control within 3%	2.6%
Infrastructure investment (RMB billion)	Railway investment: 800 Highways & water transport investment: 1800	Railway investment: 801.04 Highways & water transport investment: 2270.7	Railway investment: 732 Highways & water transport investment: 1800

Source: Government Work Reports; KPMG analysis

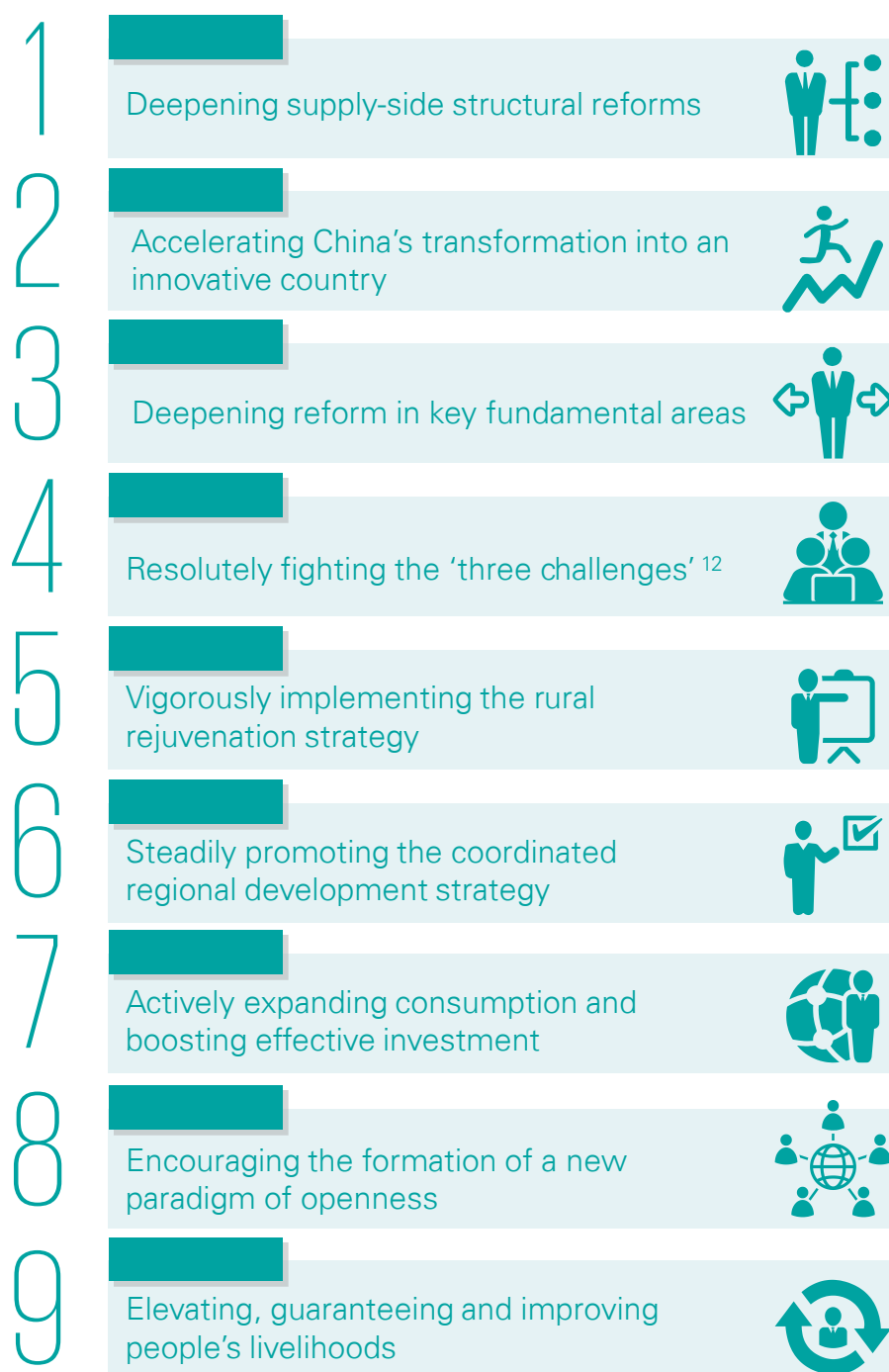
⁸ 'Report on the Work of the Government in 2018', The State Council, 5 March 2018

⁹ 'Development and Reform Commission answers questions on innovation and improvement of macroeconomic regulation and promotion of high-quality development', Xinhua News, 6 March 2018

Over the past five years, China has made two amendments to the *Catalogue for the Guidance of Foreign Investment Industries*, has cut the restrictive measures on foreign investment by 65%, and implemented the foreign investment management system reform, with the filing system as the main management method. At present, more than 96% of foreign investment is filed locally.¹⁰ Statistics show that in 2017, actual use of foreign capital hit USD 136.3 billion, an increase of 2% YOY. This set a new record and was second highest in the world.¹¹

The year 2018 marks the 40th anniversary of ‘reform and opening up’, and further deepening of reforms will undoubtedly be an important priority for the government’s work this year. In January 2018 at the World Economic Forum in Davos, Vice Premier Liu He of the State Council made a point of mentioning that China’s new reform and opening up measures in 2018 will “surpass the expectations of the international community”.

The focus of government work in 2018



Source: 2018 Government Work Reports; KPMG analysis

¹⁰ ‘Reassurance for foreign investment’, People’s Daily Online – People’s Daily Overseas Edition, 20 March 2018

¹¹ ‘The 2018 National Foreign Investment Conference held in Beijing’, Ministry of Commerce Press Office, 30 March 2018

¹² ‘The three challenges’ refers to preventing and defusing financial risks, targeted poverty alleviation and pollution control.



During the two sessions, the ministries also held press conferences to answer questions about their respective areas. Table 2 summarises the themes of the press conferences and the focus of work in 2018.

Table 2: Highlights of the press conferences

Ministry/ Commission	Conference theme	Highlight
National Development and Reform Commission	Innovating and improving macro control to promote high-quality development	<ul style="list-style-type: none"> • Create a system of 'Xiong'an Quality' and help relieve pressure on the city of Beijing through the planning and construction of the Xiong'an New District, comprehensive reform and opening up, and steady progress in major projects • Significantly ease market access, vigorously promote greater convenience in investment, and attract foreign investment in 2018
Ministry of Finance	Tax reform and financial work	<ul style="list-style-type: none"> • Continue to implement the policy of tax reduction and fee reduction to further reduce the burden on businesses. Reform and improve the value-added tax system, implement personal income tax reform, and increase support for micro-, small or medium-sized businesses • Encourage international tax coordination and cooperation, and promote the construction of the 'Belt and Road' Initiative
People's Bank of China	Financial reform and development	<ul style="list-style-type: none"> • Actively and steadily expand the opening up of the financial industry • Promote the internationalisation of the RMB and the smooth convertibility of capital projects
Ministry of Science and Technology	Accelerate the construction of China as an innovative country	<ul style="list-style-type: none"> • Accelerate the application of artificial intelligence innovation results and international cooperation in this field through soon-to-be-released artificial intelligence project guidelines and specifications
State-owned Assets Supervision and Administration Commission	Reform and development of state-owned enterprises	<ul style="list-style-type: none"> • Promote equity diversification and mixed ownership reforms at the group level • Try to ensure all types of enterprises – including foreign ones – will participate in the reforms on mixed ownership • Support and encourage more central companies to go global; at the same time, strictly control overseas risks and investment risks • Implement the high-quality development of state-owned enterprises in three areas: accelerating the transformation of the manufacturing industry; reinvesting resources in strategic emerging industries; and further promoting the streamlining of enterprises.
Ministry of Commerce	Promote the formation of a new paradigm of comprehensive openness and promote the development of high-quality business	<ul style="list-style-type: none"> • Further promote the construction of the 'Belt and Road' Initiative, and encourage companies to develop e-commerce and services such as big data, cloud computing and artificial intelligence along the 'Belt and Road' • Launch work in the three areas of platform construction, expanding openness, and improving the environment. Of these, market access will be greatly eased, import tariffs on automobiles and some daily-use consumer goods will be lowered, and services such as telecommunications, medical care, education and pensions will be expanded.

Source: Various press releases; KPMG analysis

Reform of party and state institutions, and promotion of the transformation of government functions

On 21 March, the Communist Party of China's (CCP) Central Committee issued the *Measures to Deepen Party and State Institutional Reform*. The programme makes important adjustments to party and government organisations at various levels, for example, the formation of the National Supervisory Committee and Central Committee for the Rule of Law. The State Council is being restructured to focus on transforming government functions, coordinating the duties of various departments, and adjusting and merging departments that have overlapping functions, largely achieving the principle of one department handling one line of business. This is the eighth institutional adjustment by the State Council since 1982. Eight agencies at the ministerial level and seven agencies at the sub-ministerial level were removed, meaning that excluding the General Office of the State Council, the State Council is now made up of 26 departments.

Table 3: Selected state-owned institutional reform measures and their objectives

Reform measures	Objective
Creation of the Ministry of Natural Resources, discontinuation of the Ministry of Land and Resources, the State Oceanic Administration, and the State Bureau of Surveying and Mapping. Creation of the Ministry of Ecology and Environment, and discontinuation of the Ministry of Environmental Protection	These ministries will engage in the unified management, planning, protection and restoration of different natural resources, achieving integration of multiple plans for national economic and social development planning, urban and rural planning, land use planning, and ecological and environmental protection planning within individual regions, solving the problem of overlap in area planning.
Creation of the Ministry of Veterans Affairs	Improve management of the armed forces. Help utilise skilled people and integrate high-quality human resources. Boost morale in the military and enhance the combat effectiveness of the armed forces, and will play a major role in achieving the objective of a strong Chinese military and robust national defence.
Reorganisation of the Ministry of Science and Technology	Encourage the integration of technology and the economy, multiply the effect of technological innovation, help optimise the allocation of technological resources, save energy and time for researchers, and help better coordinate the demand and supply of technological talent both in China and abroad, helping bring people skilled in technological innovation to China.
Optimisation of auditing duties and discontinuation of the supervisory boards of key state-owned large-scale enterprises	Help improve the state supervisory system and create a unified, efficient mechanism for overseeing audits. Separating management from supervision activities will improve the effectiveness of audit supervision, solve issues of overlapping responsibilities, improve the efficiency of supervision, and reduce regulatory costs.
Creation of the State Administration for Market Regulation; discontinuation of the State Administration for Industry and Commerce, General Administration of Quality Supervision, Inspection and Quarantine, and the China Food and Drug Administration.	Unified enforcement will help solve such issues as duplicated enforcement and the overlapping of responsibilities. It will improve the efficiency and authority of supervision, reduce the cost of enforcement for regulatory agencies and that of compliance for companies, and will improve market supervision systems. It will also help protect consumer rights, maintain order in the market, and create a market environment that is more honest, trustworthy and fair.
The newly formed China Banking and Insurance Regulatory Commission will replace the China Banking Regulatory Commission and China Insurance Regulatory Commission	Marks the change of financial supervision into a new system of 'one industry, two commissions'. It will help break down the walls between regulatory authorities, coordinate overall development of the financial industry, unify regulatory standards between agencies, and solve the issues of opaque regulatory duties, overlapping scope, and regulatory gaps brought about by mixed operations in the financial industry.
Forming of the National Agency for International Development and Cooperation and the State Immigration Administration	The formation of these two agencies represents an expansion of China's openness. It will promote openness to the outside world, better serve the overall landscape of Chinese diplomacy and the work of building the 'Belt and Road' Initiative, and help attract talented people. It will enhance China's international image, increase its authority in international affairs, enhance its participation in global governance, and build a shared community for all mankind.
Reform of the national and local tax systems, merging of provincial and sub-provincial level national and local tax systems	Reduce the burden on taxpayers and avoid double taxation. It will effectively improve tax collection and the administrative efficiency of tax authorities, reduce the cost of collecting taxes, and avoid loss in tax revenue. It will also solve the imbalance in the duties of national and local tax agencies that appeared following the transition from business tax to VAT.

Source: *Measures to Deepen Party and State Institutional Reform*; KPMG analysis

Environmental Protection Tax Law formally implemented

On 1 January, the *Environmental Protection Tax Law of the People's Republic of China* was formally implemented. The Environmental Protection Tax is China's first standalone environmental tax aimed at protecting the environment. Based on the legislative principle of 'lateral movement' of the tax burden, it transfers the cost of waste disposal to the Environmental Protection Tax, which will be collected from those who previously paid the waste disposal fees, including emitters of air pollutants, water pollutants, solid waste and noise pollution. The collection of environmental taxes will bolster the enforcement of the Environmental Protection Tax Law.

The government is tightening environmental protection enforcement. In 2017, the government passed the *Environmental Protection Inspection Program (Trial)* and proposed the establishment of an environmental protection inspection working mechanism. As at January 2018, comprehensive environmental inspections in 31 provinces (including autonomous regions and municipalities) had been completed. On 28 March, the first meeting of the Central Committee for Deepening Reform reviewed the *Report on the Summary of the First Round of Central Environmental Protection Monitoring and Considerations for the Next Step of Work*. The next round of environmental monitoring is being prepared.

In terms of eco-friendly regional development, on 13 February 2018, the Ministry of Finance issued the *Guiding Opinions on Establishing and Improving the Long-term Effective Mechanism for Ecological Compensation and the Protection of the Yangtze River Economic Belt* (referred to below as the "Opinions"). The Opinions state that the central government will strengthen the design of the compensation and protection system in the Yangtze River Basin, improve the approach to relocation compensation, increase financial support, and establish robust incentive and guidance mechanisms. In addition, the Opinions encourage social capital to invest in environmental protection and investigate the introduction of diversified financing mechanisms such as green credit and emissions offsets. On 10 March, the Government Work Report once again stressed the need to "make the ecology a priority and be guided by eco-friendly growth in the development of the Yangtze River Economic Belt".

On 5 March, the 13th session of the National People's Congress reviewed and passed draft amendments to the constitution which saw the addition of 'eco-civilisation', elevating the importance of eco-construction. The creation of the Ministry of Ecology and Environment, the formal collection of the Environmental Protection Tax, the normalisation of environmental protection inspections, and the reform of the emissions permit system in various sectors will force industries to transform and upgrade, accelerate adjustment in energy usage, and promote the development of a green, environmentally friendly industrial sector chain.



Launch of the 'Belt and Road' bond pilot

On 2 March 2018, the Shanghai Stock Exchange and the Shenzhen Stock Exchange each issued the *Notice on Launching the Belt and Road Bond Pilot Program* (referred to below as the "Notice"). According to the Notice, entities may adopt the following methods for issuing 'Belt and Road' bonds:

Main issuers and methods:

Method 1:

Government institutions in countries and territories situated along the 'Belt and Road' may issue government bonds on the Shanghai and Shenzhen Stock Exchanges.

Method 2:

Companies and financial institutions in countries and territories situated along the 'Belt and Road' may issue corporate bonds on the Shanghai and Shenzhen Stock Exchanges.

Method 3:

Corporate bonds issued on the Shanghai and Shenzhen Stock Exchanges by Chinese and foreign companies that are used for funding construction of the 'Belt and Road' Initiative: The funds raised by these bonds should be used to invest in, construct or operate the 'Belt and Road' Initiative, to repay the special interest-bearing debt formed by the 'Belt and Road' Initiative, or to launch new business activities in countries or territories along the 'Belt and Road'. If the above conditions are met, it is permitted to use no more than 30% of the capital raised to supplement working capital and repay bank loans.

The 'Belt and Road' bonds are different from Panda bonds which had been implemented before. Panda bonds are RMB-denominated bonds legally issued within China's borders by eligible foreign institutions, and for which it is agreed to repay principal and interest within a certain period of time. The 'Belt and Road' bonds which were issued by foreign governments and companies are similar to Panda Bonds, but the new regulation also covers bonds issued by domestic companies for 'Belt and Road' construction.

We note that a number of issuers in countries along the 'Belt and Road' successfully issued Panda bonds in China prior to the release of the Notice. For example, on 30 March 2017, Russian company RUSAL issued RMB bonds worth RMB 1 billion on the Shanghai Stock Exchange, believed to be the first individual 'Belt and Road' Panda bonds. China Merchants Port Holdings Co. Ltd. and Iowa China Offshore Holdings (Hong Kong) Limited successfully issued 'Belt and Road' corporate bonds on the Shenzhen Stock Exchange, which were among the first batch of 'Belt and Road' Panda bonds issued.

Table 4: Issuance of Panda bonds by countries and listed companies along the ‘Belt and Road’ from 2017 to Q1 2018

Issuers	Total issue amount (RMB billion)	Issue date	Issue location
Republic of the Philippines	1.5	26 March 2018	Interbank Borrowing Centre
Sharjah Emirates Government (represented by the Sharjah Ministry of Finance)	2.0	5 February 2018	Interbank Borrowing Centre
RUSAL	0.5	4 September 2017	Shanghai Stock Exchange
Hungary	1.0	28 July 2017	Interbank Borrowing Centre
Malaysia Maybank Ltd.	1.0	25 July 2017	Interbank Borrowing Centre
RUSAL	1.0	30 March 2017	Shanghai Stock Exchange

Source: Wind; KPMG analysis

In Q1 2018, the first ‘Belt and Road’ corporate construction bond was successfully issued on the Shanghai and Shenzhen Stock Exchanges.

Table 5: Q1 2018 ‘Belt and Road’ listed companies’ construction bonds

Issuers	Total issue amount (RMB billion)	Issue location	Issue date	Use of funds raised
Red Lion Holdings Group Co., Ltd.	0.3	Shanghai Stock Exchange	30 January 2018	The planned issuance amount of this bond is RMB 300 million. It will be used to purchase cement and manufacturing equipment for the Red Lion cement project in Vientiane, Laos, a ‘Belt and Road’ Initiative project.
Hengyi Petrochemical Co. Ltd	0.5	Shenzhen Stock Exchange	21 March 2018	The funds raised from the corporate bonds in this period were used for one of the company’s key ‘Belt and Road’ projects: the Brunei PMB petrochemical scheme.

Source: Wind; KPMG analysis

The ‘Belt and Road’ bond pilot is an important measure to provide financial support to the ‘Belt and Road’ Initiative. On the one hand, the ‘Belt and Road’ largely runs through developing countries. The construction of infrastructure in these countries requires significant financial support, and the bond pilots help provide the necessary credit. On the other hand, the ‘Belt and Road’ bond pilot also helps open up China’s bond markets and will strengthen the RMB’s role in cross-border payments, thus enhancing the ‘internationalisation’ of the currency.

Going forward, the Shanghai Stock Exchange will establish a ‘Belt and Road’ bond sector, and at the appropriate time, release a ‘Belt and Road’ bond index, further enhancing the initiative’s investment and financing mechanisms. The development of other bond varieties such as a ‘Belt and Road’ green bond and renewable bonds based on the ‘Belt and Road’ bond will also be encouraged. In addition, different financial institutions and the wealth management products, social security funds and pension funds that they issue, as well as QFII and RQFII, will be encouraged to invest in ‘Belt and Road’ bonds.¹³

¹³ ‘Shanghai Stock Exchange: Timely launching of relevant indices and products to encourage various investors to participate’, China Securities Journal, 5 March 2018

State Council releases opinions on strengthening basic scientific research

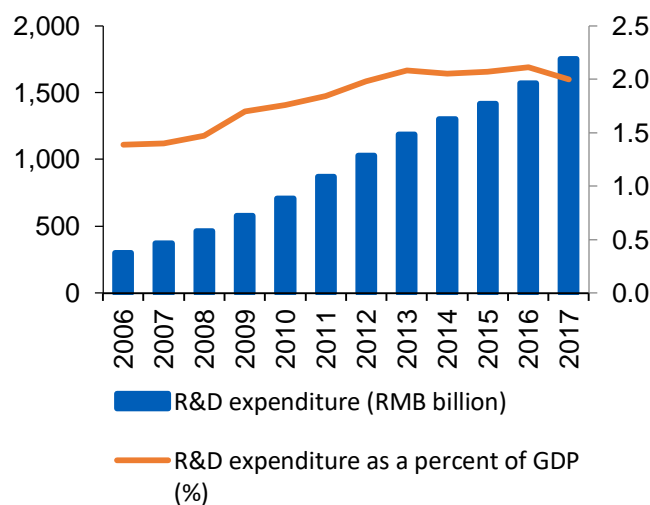
On 31 January 2018, the State Council issued *Several Opinions on Comprehensively Strengthening Basic Scientific Research* (referred to below as the “Opinions”). This is the first document issued by the central government on basic scientific research since the 19th National Congress Report proposed the strengthening of basic research. The Opinions features key deployment in five areas, establishing ‘three steps’ of development objectives for basic research in China. It proposed that by the middle of this century, China will have become a major centre of global science and innovation, with major achievements in basic science, and having world-class scientists.¹⁴

Data shows that China’s research and development funding increased from RMB 300 billion in 2006 to RMB 1,750 billion in 2017, growing by about five times. Although R&D expenditure has increased steadily over the past five years, there has been no significant increase in its proportion of GDP, which has hovered at around 2% since 2013.¹⁵

In terms of basic research, China has a long way to go. China’s basic research expenditure accounts for about 5% of the total R&D investment. *Science and Engineering Indicators 2018*, published by the National Science Foundation, shows that in 2015, basic research funding in the US accounted for 17% of total R&D expenditure.¹⁶ In France, that figure was 24%. Clearly, China has considerable room for growth in this area.

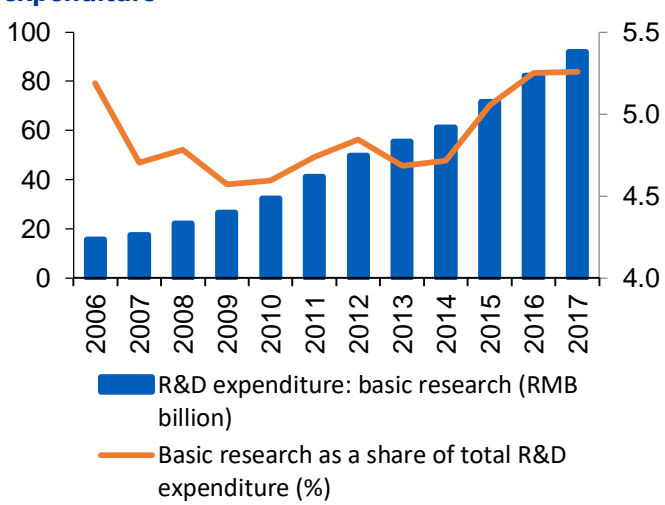
Addressing the current shortcomings in China’s basic scientific research, the Opinions spoke of the need to “strengthen stability support and optimise input structure”. The central government will act as a source of stable funding and increase its efforts to provide support, while simultaneously creating diversified investment mechanisms for the creation of basic research, guiding and encouraging all areas of society to increase their investment in basic scientific research.

Figure 22: China’s R&D expenditure



Source: Wind; KPMG analysis

Figure 23: China’s basic scientific research and R&D expenditure



Source: Wind; KPMG analysis

¹⁴ ‘Press office holds press conference on the relevant opinions of the State Council on the comprehensive strengthening of basic scientific research’, ChinaNet, 11 February 2018

¹⁵ Wind

¹⁶ ‘Science and Engineering Indicators 2018’, National Science Board

Increased trade friction between China and the US

On 23 March (Beijing time), US President Donald Trump signed a presidential memorandum on the Section 301 investigation launched against China in August 2017.¹⁷ The memorandum authorised the US Trade Representative to create a list of products for which additional tariffs on China would be imposed within 15 days, and authorised the US Department of Commerce to issue measures to restrict investment in China within 60 days. On the same day, China's Ministry of Commerce announced the suspension of concessions for some US agricultural products exported to China, as a countermeasure against the US Section 232 investigation which raises tariffs on steel and aluminum exports.

On 4 April, the US Trade Representative announced a recommended list of products on which tariffs would be applied as a result of the 301 investigation against China.¹⁸ The list covered approximately USD 50 billion worth of Chinese imports with a proposed tariff of 25%, and covered approximately 1,300 separate tariff lines.¹⁹ On the same day, China decided to impose a 25% tariff on 106 products in 14 categories originating in the US.²⁰ These included soybeans, automobiles, and chemical products. The scale was equivalent to the US list: approximately USD 50 billion.

In 2018, the US has announced a number of import tariff policies, in addition to the Section 301 investigation. On 23 January, it announced temporary tariffs on imported solar cells, solar panels and large domestic-use washing machines, and on 8 March it announced tariffs of 25% on imported steel and 10% for aluminium, with a subsequent announcement of a temporary exemption from these steel and aluminium tariffs for items produced in the European Union, Canada, Mexico, Brazil, South Korea and some other economies – but not China.

The US administration believes trade with China is imbalanced and has requested that China further open up its market. The Section 301 investigation stated that Chinese companies violated US intellectual property rights and forced US companies to transfer their technology. Most of the areas affected by the tariffs are aerospace products, industrial robots, new generation of information technology, and new materials covered in 'Made in China 2025'.

Regarding the US's 232 measures to the Section 301 investigation, the Chinese Government has stated its position that China does not want to fight a trade war, but will respond if necessary. In order to protect its national interests and the multilateral trading system, China has indicated that it will seize this opportunity to introduce a new round of deeper reform and opening up. It will also continue to promote the 'Belt and Road' Initiative and develop its 'Made in China 2025' strategy.

According to US statistics, in 2017, trade between China and the US reached a deficit of USD 375 billion, accounting for 46% of the US trade deficit. Roughly half of these products are electromechanical and audio-visual equipment and parts. Most of these have little value added, as they are only assembled in China and then exported to the US. A study by Deutsche Bank showed that if the sales of Chinese and American companies' subsidiaries in each other's countries were taken into account, the trade balance between the two countries would be greatly reduced.²¹

¹⁷ 'Findings of the investigation into China's acts, policies, and practices related to technology transfer, intellectual property, and innovation under Section 301 of the Trade Act of 1974', 22 March 2018, Office of the US Trade Representative: Executive Office of the President

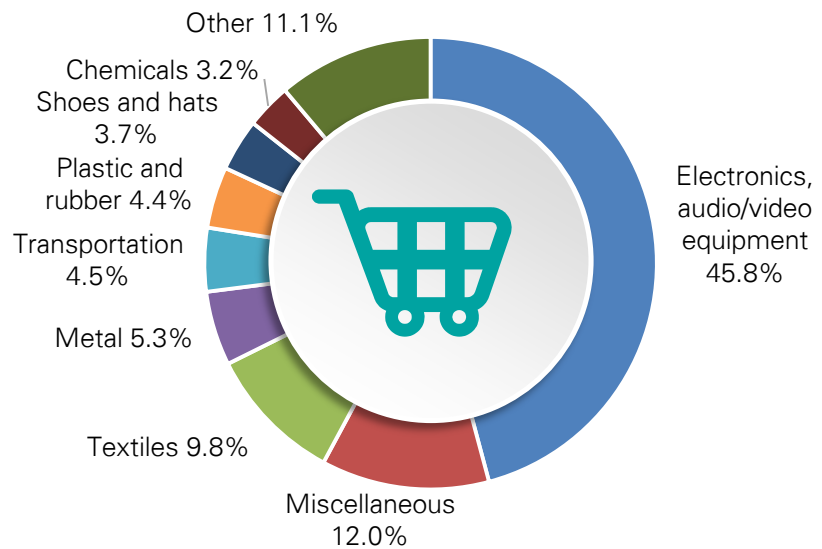
¹⁸ 'Under Section 301 Action, USTR Releases Proposed Tariff List on Chinese Products', Office of the United States Trade Representative, April 2018

¹⁹ 'Ministry of Commerce spokesperson releases statement on the US proposal to release taxable products under China's 301 survey', Ministry of Commerce, 4 April 2018

²⁰ 'Notice of the Customs Tariff Commission of the State Council Concerning Adding Tariffs on Certain Imported Commodities Originating in the United States,' Customs Tariff Commission of the State Council, 4 April 2018

²¹ 'Estimating the scale of mutual commercial interests between China and the United States', Deutsche Bank, March 2018

Figure 24: 2017 Chinese exports to the US by category



Source: Wind; KPMG analysis

On 10 April, President Xi Jinping delivered a speech at the opening ceremony of the Boao Forum for Asia in which he reaffirmed China's determination to adhere to reform and opening up, and promote economic globalisation. He announced four major initiatives to increase openness: (1) Large-scale expansion of market access, including accelerating the opening up of insurance and financial industries and restrictions on foreign investment in the automotive industry; (2) Creating a more attractive investment environment; (3) Strengthening intellectual property protection; (4) Actively expanding imports. President Trump responded positively to Xi Jinping's speech on Twitter, saying he hoped that "We will make great progress together!" There is still a high degree of uncertainty over which scenario will play out for US-China trade and economic relations.

3

Special topic: Life sciences



Broad prospects for China's life sciences market

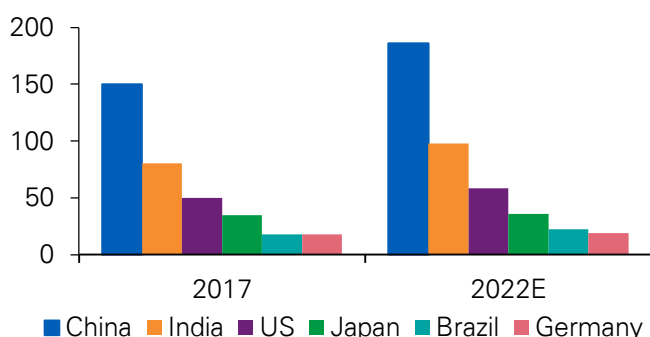
For global life sciences and pharmaceutical companies, China has always been one of the world's most alluring markets. An ageing population, high incidence of chronic disease, and the rise of the urban middle class have placed a heavy burden on China's public medical system, but also driven demand for new products and services. According to United Nations data projections, the number of elderly people in China aged over 65 will grow from 150 million in 2017 to 186 million in 2022, ranking first in the world in both incremental and absolute terms.

Ageing population, dietary habits and lifestyle changes contribute to the increased incidence of related diseases. According to a report published by the National Cancer Centre, there were about 3.8 million new cases of malignant tumours nationwide in 2014, accounting for 21.8% of new cases of malignant tumours in the world.²² This means that on average, seven people were diagnosed with cancer every minute. The reported cancer incidence was 278.07 per 100,000, of which lung cancer ranks in first place. This ranks in the middle-to-upper level among 184 countries and regions.

Increasing healthcare demands leads to growing medical expenditure. In 2017, per capita medical expenditure in China was USD 501. This was an increase of 5.9% from 2016, but still far short of the USD 10,213 in the US.²³

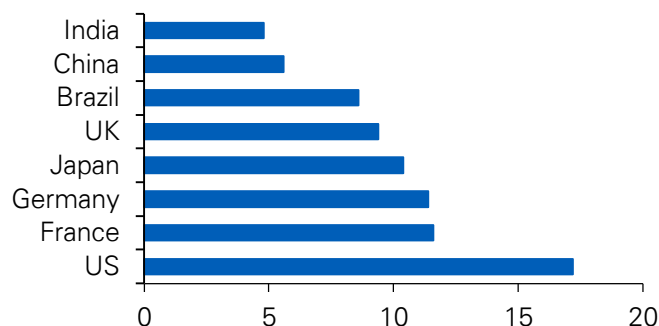
In addition, the share of GDP in China's healthcare expenditure in 2017 was 5.6%, still much lower than that in Japan and many European and North American countries. The Economist Intelligence Unit (EIU) predicts that China's healthcare expenditure will reach RMB 5.0724 trillion (USD 760.9 billion) by 2018, an increase of 9.1% over 2017. The dual drivers of rising income and government investment will greatly expand the future of the industry.

Figure 25: Population aged 65 and over by country, in millions



Source: UN Population Division; KPMG analysis

Figure 26: Share of health expenditure in GDP in 2017, %



Source: EIU; KPMG analysis



Li Fern Woo
National Sector Leader,
Life Sciences
KPMG China

“ With increasing life expectancy and a growing ageing population in China, age-related and chronic diseases such as Alzheimer's, tumours and cardiovascular disease are increasing and have brought new requests and great challenges to the life sciences industry. At the same time, the emergence and rapid development of various disruptive technologies have brought many new opportunities to the life sciences industry. China's life sciences companies are investing heavily in R&D, and strive to provide more efficient and high-quality products and services through innovation. ”

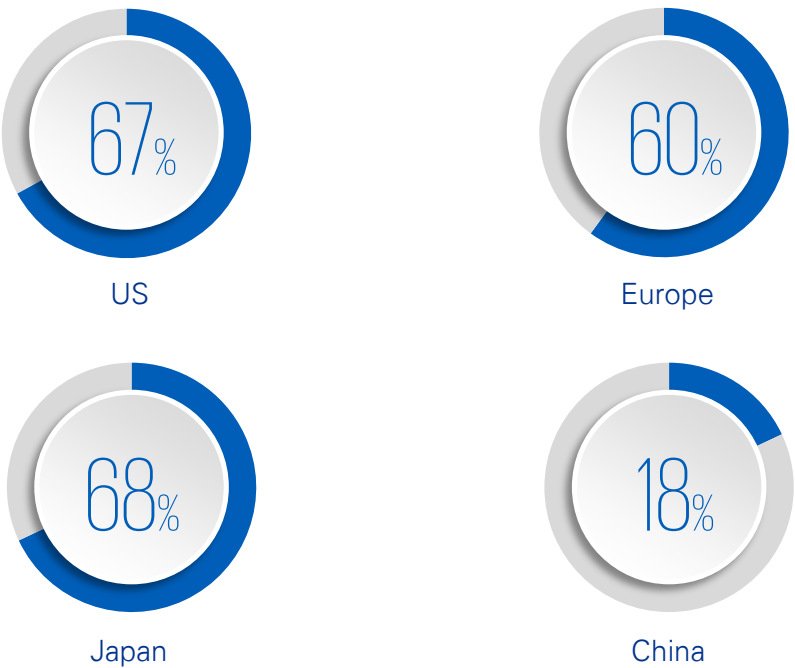
²² 'Cancer incidence and mortality in China, 2014,' Chen et al, Chinese Journal for Cancer Research, 2018

²³ 'United States: Healthcare 1st Quarter 2018', EIU

2.1 Accelerated innovation in drug development

Relative to its huge population and potential for consumption, the development of innovative drugs in China currently lags behind other developed markets. For example, in 2015, innovative drugs in the European market accounted for 60% of the total pharmaceutical market. This figure was even higher in the US and Japan, at 67-68%. For China, it is 18% – much lower than other countries.

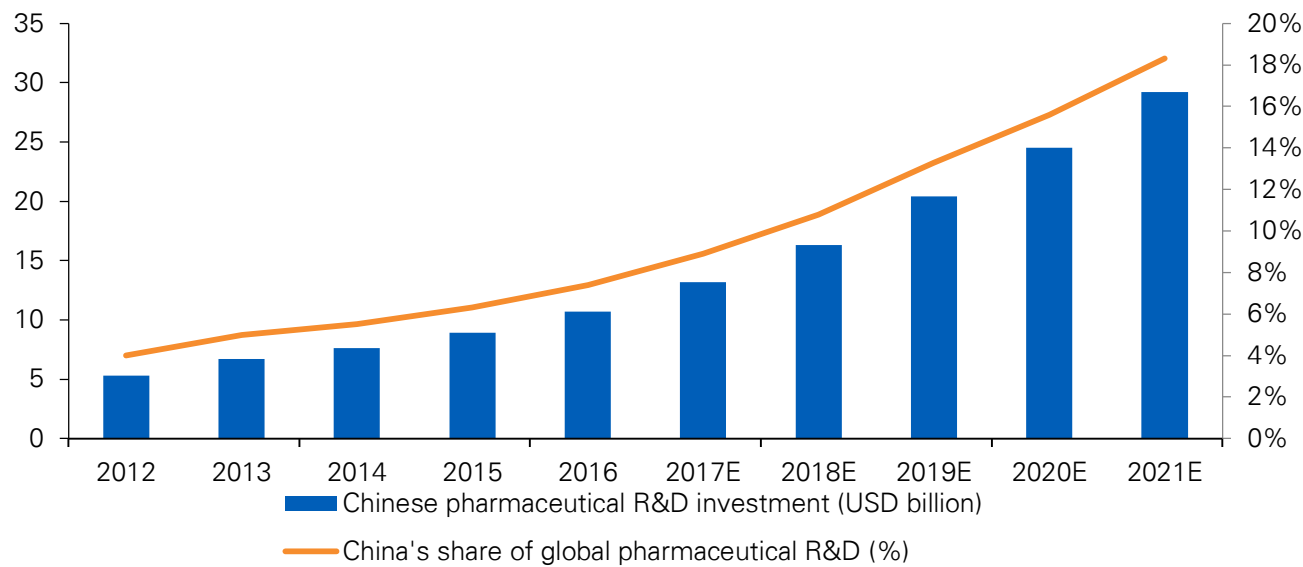
Figure 27: Proportion of innovative drugs in the global pharmaceutical consumer market, %



Source: IMS; KPMG analysis
Note: In this chart, 'Europe' refers to France, Germany, Italy, Spain and the UK.

To accelerate the development of innovative drugs, China has continued to increase its investment in pharmaceutical R&D. Between 2012 and 2016, the compound growth rate of China's pharmaceutical R&D investment reached 19.2%, much higher than the average global growth rate of 2.4% during the same period. We expect that China's pharmaceutical R&D investment will further accelerate in the future. EvaluatePharma predicts that China's pharmaceutical R&D investment will surge from USD 10.7 billion in 2016 to nearly USD 30 billion in 2022, representing an average annual growth rate of 22.1%. Its share of global pharmaceutical R&D investment will also increase from 7.4% to 18.3%.

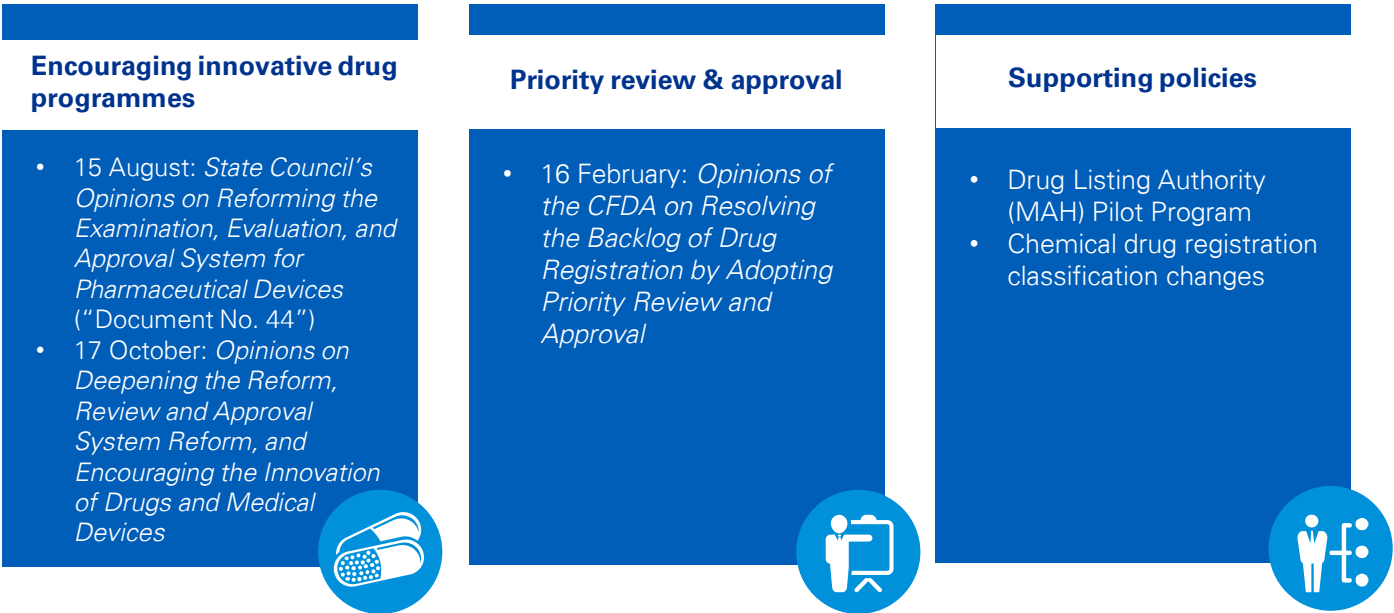
Figure 28: China’s pharmaceutical R&D investment and global share



Source: EvaluatePharma; Yiou; KPMG analysis

At the same time, the Chinese Government continues to introduce policies to encourage innovation, reform the review and approval system for drugs, and promote the development of innovative drugs. With the increased investment and policy support for innovative drug R&D, domestic Chinese companies are also advancing in innovative drug development. We expect faster growth in innovative drugs in the future.

Figure 29: Policies to encourage the development of innovative drugs since 2015



Source: State Food and Drug Administration; KPMG analysis

2.2

Enhanced quality of generic drugs and management of consistency

At the same time as developing innovative drugs, China will also strengthen its quality standards for generic drugs. Generic drugs are not copycat drugs, but an alternative drug that has the same active ingredients, dosage, administration method, and therapeutic effect as the original. According to international practice, after the patent for a drug expires, other countries and pharmaceutical manufacturers may produce generic versions of the drug. This has become an important means for countries to control the cost of treatment and help guarantee patients' access to medication.

With the ever-increasing cost of research and development of new drugs, both developing countries and developed countries such as EU countries and the US are paying increasing attention to the development of the generic pharmaceutical industry. As China's healthcare reform continues to deepen and issues relating to its ageing population and urbanisation become more pronounced, there has been a dramatic increase in demand for high-quality, low-cost generic drugs in the country's domestic pharmaceutical market.

China is a major consumer of generic drugs, and more than 95% of its nearly 170,000 drug approvals have been for generic drugs. On the supply side, however, the industry is large but lacks strength. With low quality standards and a proliferation of manufacturers, there is vicious competition. In response to these problems, in 2015 the State Council proposed evaluating the conformity of generic drugs by carrying out regular assessments of the quality and consistency of different products available on the market.

In 2016, the State Council issued *Opinions on the Conformity Assessment of the Quality and Efficacy of Generic Drugs* and adopted incentive policies for generic drugs that passed consistency assessments, including support in the payment of medical insurance. On 3 April 2018, the State Council went a step further by issuing *Opinions on Reforming and Perfecting the Supply and Use Policy of Generic Drugs* to encourage R&D in the use of generic drugs. In the coming years, many patents for original research drugs owned by large pharmaceutical companies in Europe and the US are set to expire. There is considerable room for growth in generic drug R&D, and China will continue to promote the transformation and upgrading of its life sciences industry.

2.3

Embracing the new wave of digital medicine

With the growth of the global digital economy and industry demand, the life sciences sector is also being transformed by digitalisation. The medical industry produces a large amount of data, but most of it is not effectively used or analysed; as a result, there is strong demand from medical institutions for the digitalisation of the entire medical treatment process.

For example, in the face of the significant costs of medical treatment, the traditional prescription drug pricing model has encountered challenges. For instance, as a country that provides universal healthcare for all its citizens, the UK has changed its pricing mechanism for new drugs from profit control pricing to value pricing since 2014; China has also been committed to introducing value-based pricing into the drug price management system to reduce the divergence between drug prices and their value. In May 2015, seven ministries and commissions including the NDRC, jointly issued *Opinions on Promoting Drug Price Reform*, noting that the government pricing of drugs would be cancelled from 1 June 2015, except for narcotic drugs and the first type of psychotropic drugs. It also called for gradually establishing a market-oriented mechanism for setting and lowering drug prices.

The governments of some countries have already begun discussing the adoption of value-based pricing. However, adopting a value-based pricing model requires tracking the use of patients, collecting large amounts of data, and conducting in-depth analysis of this data in order to accurately quantify the effects of drugs and perform value calculations. The use of digital technology will be conducive to introducing these new pricing models.

Increasing numbers of venture capital companies are investing in China's digital healthcare industry by providing funds for start-up companies. In 2017, China's B2C online pharmaceutical market is expected to reach RMB 44.7 billion – 28 times its scale in 2012.²⁴ Medical devices are also becoming more intelligent and internet-based. Medical device manufacturers in China and abroad have applied digital healthcare and artificial intelligence concepts to their new products to provide digital solutions for the construction of medical institutions and hospitals.

²⁴ 'Life Sciences in China, the CEO's perspective', KPMG China, 2016, <https://home.kpmg.com/cn/en/home/insights/2016/07/life-sciences-in-china-the-ceos-perspective.html>

2.4

Further integration with the international community and deepening global cooperation

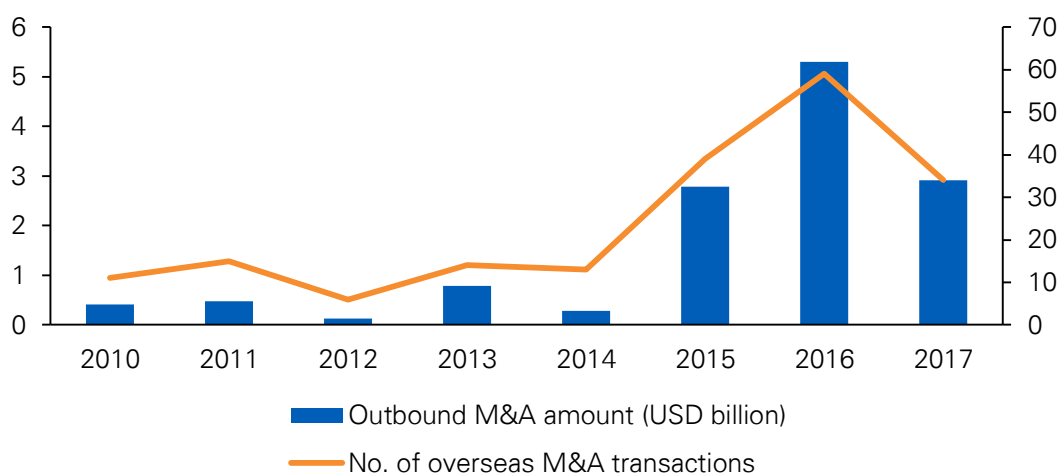
In June 2017, China formally joined the ICH (International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use). This was a landmark event in the Chinese pharmaceutical industry's alignment with international standards. The ICH was established in April 1990 and was jointly initiated by the drug registration authorities and the pharmaceutical industry associations of the European Union, the US and Japan. After more than 20 years of development, ICH guidelines have been adopted as technical specifications by many countries and territories. These guidelines represent a global technical and industrial standard, and have played a major role in coordinating the registration of new drugs.

China's accession to the ICH heralds the gradual transformation of the country's drug regulatory agencies, pharmaceutical industry and R&D institutions, and their incorporation of the highest international technical standards and guidelines. It will help encourage the earlier introduction of international innovative drugs to the Chinese market, fulfil demand for clinical drugs, and enhance the innovative capabilities and international competitiveness of the country's domestic pharmaceutical industry.

At the same time, China's life sciences companies are becoming more active on the international stage, and have been increasing their investment and mergers and acquisitions (M&A) overseas. Since 2015, there has been a significant acceleration in the expansion of overseas M&A transactions in this sector. The number of M&A transactions initiated increased from 11 in 2010 to 59 in 2016, with their value increasing from USD 420 million to USD 5.3 billion in 2016.²⁵

In 2017, China's life sciences industry announced 34 overseas M&A transactions worth USD 2.917 billion. This was a decrease from 2016, in part due to the effects of increasing government control over overseas investments. However, in light of China's market potential and the growing demand for advanced overseas technologies, equipment and services, we expect that overseas M&A activity in China's life sciences sector will recover in 2018; and has great growth potential in the long term.

Figure 30: Outbound Chinese M&A, life sciences

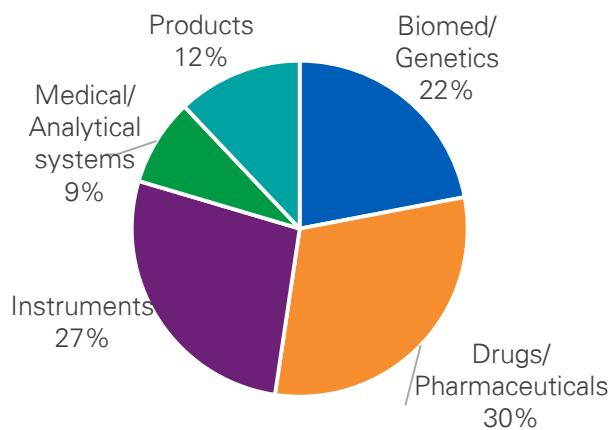


Source: Dealogic; KPMG analysis

In terms of outbound M&A, Chinese companies initiated a total of 191 overseas M&A transactions in the field of life sciences from 2010 to 2017, nearly 80% of which were in three major areas: pharmaceuticals (30%), medical and health equipment (27%), and biomedical/genetics (22%). M&A transactions in the field of pharmaceuticals represented the largest share of deal value, reaching USD 6 billion in this period and accounting for 46% of the total value of overseas life sciences' M&A transactions by China.

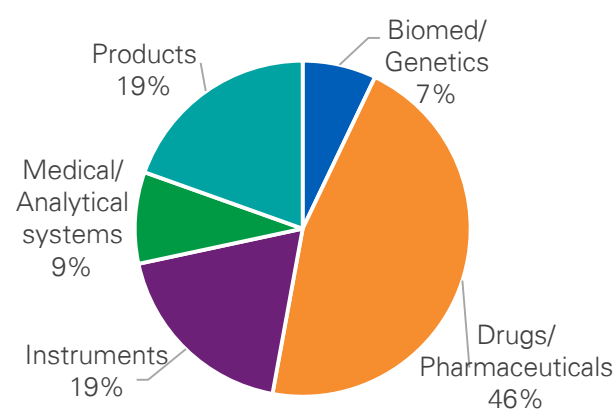
²⁵ Overseas M&A analysis in this section includes deals in Hong Kong, Macau and Taiwan.

Figure 31: Number of overseas M&A transactions by life sciences companies in China, % (2010-2017)



Source: Dealogic; KPMG analysis

Figure 32: Overseas M&A transactions of Chinese life sciences companies (USD million), % (2010-2017)

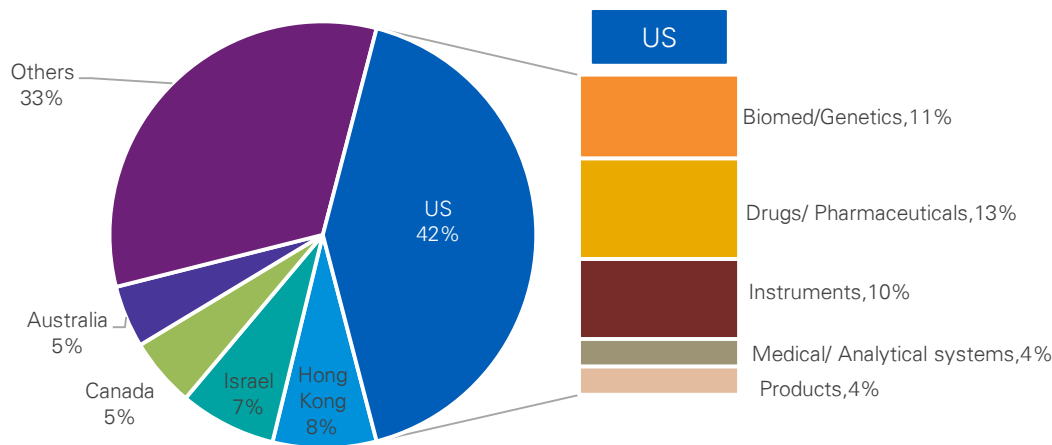


Source: Dealogic; KPMG analysis

In terms of geographical distribution, from 2010 to 2017, around 90% of mainland Chinese life sciences M&A targets were concentrated in 11 countries and regions including the US, Hong Kong and Israel. The US was the top destination with 80 deals worth a total of USD 5.56 billion, accounting for 42% of the total number and 43% of the total value of outbound M&A deals in mainland China’s life sciences sector during the period. These deals were mainly concentrated in three major areas: pharmaceuticals, biomedical/genetics, and medical and health equipment.

As a result of the recent escalation of Sino-US trade friction, the US Government has tightened its reviews of investments from China. We anticipate that Chinese companies will face more resistance to investing in life sciences in the US, and may turn their attention to other markets such as Israel, Canada, Australia and Europe.

Figure 33: Outbound life sciences M&A, by location (2010-2017)



Source: Dealogic; KPMG analysis

On 27 March 2018, WuXi AppTec's application to re-list in Shanghai was approved just 50 days after the contract research organisation (CRO) giant submitted its revised prospectus and became the first China overseas listed company returning to the A-share market in the form of an IPO.

CROs first appeared in America in the 1970s and grew rapidly in the US, Europe and Japan in the late 1980s following gradual improvements in the regulatory environment. They are academic or commercial scientific institutions that provide specialist services to pharmaceutical corporations and research institutions on a contract basis during the drug development process. Accompanying rising investment costs, longer R&D cycles, and lower R&D success rates faced by pharmaceutical corporations around the world, recent years have seen rapid growth in CRO companies thanks to their low-cost, high-efficiency, and multi-service advantages. Their coverage of different sectors has also gradually improved. Technical services currently provided by CROs include new drug product development, preclinical testing and clinical trials, data management, and registration of new drugs. They now cover the entire process of drug development, and have become an integral part of the pharmaceutical R&D ecosystem.

Chinese pharmaceutical CROs got off to a relatively late start and have yet to reach maturity. Starting from July 2015, however, the China Food and Drug Administration (CFDA) began issuing a series of new drug review policies such as the *Notice on Conducting Self-examination and Verification of Drug Clinical Trial Data*. The overall direction is to encourage the development of innovative drugs and speed up their review process. Consistency evaluation of generic drugs, self-examination of clinical drug trials, and the acceleration of the review process will help accelerate the development of China's CRO market. In addition, with China's low-cost advantages and market size, the transfer of the international CRO industry to China will also create opportunities for the development of the country's CRO enterprises.

The CRO industry is currently attracting increasing attention from funding sources. From 2010 to 2017, the number of VC/PE financing cases in the CRO sector increased from 7 to 33, while the scale of funds raised increased from USD 25.132 to USD 320 million.

Table 6: Top 5 – 2017 China CRO industry VC/PE financing

Rank	Target company	Investment institution	Financing date	Investment funds (USD million)
1	Bellen Chemistry Co., Ltd.	Competitive World Venture Capital/ Fortune Venture Capital	September 2017	37.0
2	AnchorDx	Shanghai Sijia Jianxin Venture Capital/ Frontline BioVentures / Marathon Venture Partners /ARCH Venture Partners	November 2017	28.0
3	USCI (Medical Laboratory Co., Ltd.)	GTJA Investment Group / Xizang Xianfengqiyun Investment / CITIC Guoan Capital Management	July 2017	25.2
4	EpimAb Biotherapeutics	Oria Holdings / Decheng Capital / 3E Bioventures Capital / Tianjin Trend Capital	April 2017	25.0
5	Fenshu Technology	Shanghai Hengyoutai Investment Management	September 2017	22.2

Source: ChinaVenture; KPMG Analysis

New capital market initiatives to further promote growth in life sciences

In 2010, the State Council released *Decisions on Accelerating the Cultivation and Development of Strategic Emerging Industries*, which formally listed the biotech industry among seven strategic emerging industries, and included it in the 12th Five-Year Plan. With the supply-side structural reforms, transformation and upgrading of industrial structure, and promotion of the 'Healthy China' strategy during the 13th Five-Year Plan period, biopharmaceutical companies have emerged as bright spots in the new economy and become weathervanes for capital markets' support of innovative companies. At the same time, capital markets in China and abroad have also extended the welcome mat to rapidly growing biopharmaceutical and biotechnology companies, creating a more favourable environment for their financing.

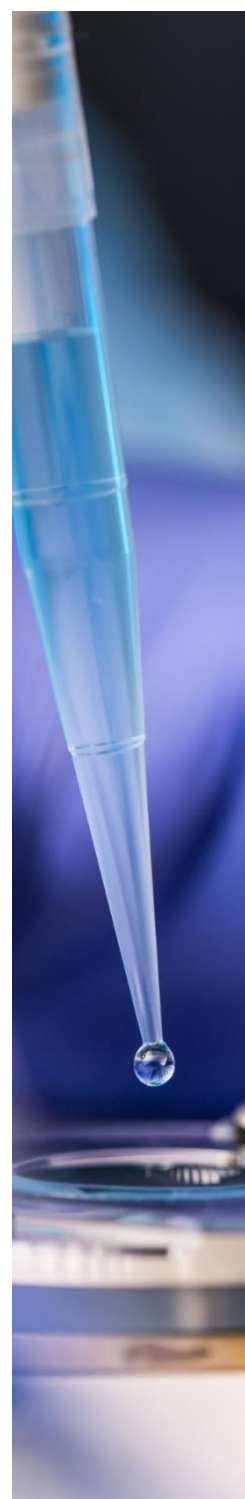
► United States

The US capital markets have always focused on supporting innovative companies. In April 2012, President Barack Obama signed the *Jumpstart Our Business Startups* (JOBS Act). The JOBS Act designed a financial support programme for enterprises throughout their life cycle, from start-up and early stages, to growth and maturity. The act attempts to reduce the cost of regulatory compliance by relaxing the mandatory information disclosure requirements in the IPO process and continued regulatory monitoring after the IPO,²⁶ giving start-ups more convenient and effective access to financing, optimising the financing environment, and improving multi-tiered capital markets. The implementation of the JOBS Act has created a platform for growth for R&D and innovation-focused biotechnology start-ups, and recent years have seen a steady stream of biotech enterprises accessing US capital markets.

► Hong Kong

On 23 February 2018, the Stock Exchange of Hong Kong Limited (SEHK) released the *Consultation Paper on the Proposed New Listing Regime for Companies from Emerging and Innovative Sectors*. On 24 April 2018, the SEHK issued a consultation summary on the new listing regime for companies from emerging and innovative industries. After carefully considering the feedback from respondents, the decision was made to implement the suggestions within the consultation paper, at the same time as making several amendments and providing further guidance. The new chapters and amendments to the *Main Board Rules* and the *Guidance Letter* took effect on 30 April 2018, which is also the earliest date for submitting a formal listing application under the new listing system. The programme is widely regarded as Hong Kong's version of the JOBS Act.

The consultation summary made amendments to the Listing Rules to help enterprises from emerging and innovative industries, allowing biotech companies that have yet to qualify for listing on the Main Board (i.e. those which have yet to become profitable, or have no income), companies with different voting rights structures from high-growth and innovative industries, and qualified issuers²⁷ seeking a second listing on the SEHK to list on the Main Board. This provides a convenient, favourable platform for biotech and other companies from the new economy.



²⁶ 'Relaxation of private equity restrictions,' Yao Yudong, Director of the Central Bank Institute of Finance, Economic Observers, 31 May 2015

²⁷ Qualified issuer: An issuer that is primarily listed on the main markets of the New York Stock Exchange, NASDAQ or London Stock Exchange (and is classified as an 'Advanced Listing' by the UK Financial Conduct Authority).

Table 7: Proposed SEHK listing regime for biotech companies

• **Qualified biotech companies should meet the following criteria:**

Product criteria	At least one core product has passed the conception phase. ²⁸
R&D criteria	The company has been engaged in the development of core products for at least 12 months prior to listing.
Capital use criteria	Funds raised from the listing are chiefly used for R&D to bring core products to the market.
Intellectual property criteria	Companies must possess long-term patents, registered patents, patent applications and/or intellectual property.
Third-party criteria	A minimum of six months prior to the initial IPO, a substantial investment (not just a symbolic investment) must be secured from at least one third-party investor, who must not withdraw during the initial IPO. ²⁹

• **Companies should have at least one core product that has passed the conception stage:**

Pharmaceutical agents (small molecule drugs)	<ul style="list-style-type: none"> Phase I of clinical trials has been completed; if the products have been previously approved (e.g. FDA 505(b)(2)), human trials must be performed at least once. There was no objection to conducting phase II of clinical trials.
Biological agents	<ul style="list-style-type: none"> Phase I of clinical trials has been completed; in the case of biosimilars, human trials must be performed at least once. There was no objection to the conduct of the second phase (or later phase) of clinical trials.
Medical equipment (including diagnostic equipment)	<ul style="list-style-type: none"> Medical devices classified as secondary (or equivalent) or higher. At least one human trial has been completed. Competent authorities or accredited agencies have either approved or not objected to conducting further clinical trials, or sales of other equivalent medical devices have already begun.
Other biotech products	<ul style="list-style-type: none"> These have been considered according to the specific circumstances. It must be proven that the product has passed the conception phase. It must be considered whether there are appropriate frameworks or objective indicators that can allow investors to make informed investment decisions.

• **Additional requirements and safeguards:**

Market value	<ul style="list-style-type: none"> The market value at the time of listing should be no less than HKD 1.5 billion.
Working capital	<ul style="list-style-type: none"> The company must be able to afford 125% of the group's expenses for at least 12 months in the future (including the amount of capital raised from the IPO). Expenditure must mainly include (a) general, administrative and operating expenses; and (b) R&D expenses.
Performance record	<ul style="list-style-type: none"> The company has been engaged in existing business for at least two fiscal years prior to listing, and management has generally remained the same.
Enhanced disclosure	<ul style="list-style-type: none"> Disclosure of product information in the prospectus should be strengthened, and information on the company's R&D activities should continuously be disclosed in the interim reports and annual reports following the listing.
Restrictions on cornerstone investors	<ul style="list-style-type: none"> When determining whether to meet the minimum public float requirements during the listing period and during the six-month lock-up period after the listing, the shares subscribed by the cornerstone investor at the time of the IPO should not be counted. Existing pre-IPO investors can participate in IPOs, and only the shares subscribed during the IPO will not be included in the public float.
Special measures for managing risk	<ul style="list-style-type: none"> Fundamental changes in the principal business operations must be agreed by the SEHK. If the SEHK considers that the issuer has failed to maintain an adequate level of operations or assets, it will implement the process of expediting delisting; that is, the company must re-conform to the relevant regulations within 12 months. A unique share mark 'B' is added at the end of the stock code.

Source: Consultation Paper on the Proposed New Listing Regime for Companies from Emerging and Innovative Sectors; KPMG analysis

²⁸ Core products: According to the applicable laws, rules and regulations, biotech products may only be marketed and sold within the market regulated by competent authorities, following data evaluation and approval by the competent authorities based on clinical trials (i.e. human trials). Such products are the basis by which the biotech company applies to go public, according to Chapter 18A of the Main Board Listing Rules.

²⁹ Although the SEHK does not define "senior investors" and "a considerable amount of investment", the consultation summary provides relevant guidelines and benchmarks.



In addition, the *Consultation Summary* explicitly states that if the core product is an externally licensed technology or was purchased from a third party, the applicant must be able to demonstrate progress in R&D after purchasing the licence or product. This revision aims to address the behaviour of applicants who may achieve an IPO through purchasing licenced technology or core products.³⁰

► Mainland China

During the ‘two sessions’ period, widespread attention was given to how capital markets help promote the growth of the new economy. On 30 March, with the approval of the State Council, the General Office of the State Council seconded the CSRC’s *Several Opinions on Developing Pilot Projects for Issuing Domestic Shares or Depositary Receipts for Innovative Enterprises* (referred to below as the “Opinions”) to encourage innovative companies to issue shares in China or raise funds through a CDR.

The Opinions made systematic arrangements for supporting innovative companies’ listings in China, the main content of which is as follows:

In terms of industry, the Opinions defines innovative companies as belonging to the seven major industries of “internet, big data, cloud computing, artificial intelligence, software and integrated circuits, high-end equipment manufacturing, and biomedical”. The CSRC established the Scientific and Technological Innovation Industrialisation Advisory Committee (referred to below as the “Advisory Committee”), and strictly selected pilot companies.

In terms of scale, companies must be red chip companies that have been listed overseas and have a market capitalisation of no less than RMB 200 billion. If they have not yet been listed overseas, their operating income in the most recent year must be no less than RMB 3 billion and their valuation no less than RMB 20 billion, or else they must have experienced rapid revenue growth and possess independently developed, world-class technology, and have comparative advantages over other red chip companies and domestic enterprises competing in the same industry.

Financial indicators: The Opinions does not specifically address innovative enterprises that may not yet be profitable or which have suffered unrecoverable losses. The CSRC has stated that it has initiated the procedures and will revise the relevant departmental regulations.

Financing methods: Red chip companies that meet the pilot conditions will be given priority for raising funds on the stock market through the issuance of depositary receipts within China, and those that meet the conditions for stock issuance can also choose to issue shares. Domestic enterprises that meet the pilot conditions can directly issue shares and be listed on the domestic market. At the same time, due consideration will be given to the special corporate governance issues that exist in some innovative companies such as the variable interest entity (VIE) structure and voting rights differences, for which targeted arrangements will be made.

Supervision: In areas such as corporate governance, profit models, R&D models, and technical product replacements, there will be increased information disclosure requirements for pilot companies.

³⁰ ‘Hong Kong Capital Markets Update –Issue 2018-02’, April 2018, KPMG China

► Comparison of three capital markets policies

Table 8: Comparison of the main policies: The JOBS Act, Hong Kong's Consultation Summary and the New Deal of the Mainland Capital Market

Project	US JOBS Act	Hong Kong Consultation Summary	Mainland Capital Markets New Deal
Offer object	Emerging Growth Company (EGC): A company with a fiscal year's total annual revenue of less than USD 1 billion. Not limited by industry.	Biotech companies that have yet to pass any major financial qualification tests (i.e. which are not yet profitable or have no income) and companies with different voting rights structures from high-growth and innovative industries.	The seven major industries of internet, big data, cloud computing, artificial intelligence, software and integrated circuits, high-end equipment, and biopharmaceuticals, and the company is strictly regulated.
Preferential policies	In terms of financing through the stock market, companies are allowed to submit secret drafts of prospectuses to the committee prior to launching; companies only need to submit audited financial reports for two years; disclosure requirements for executive compensation can be reduced; and audit requirements for internal control reports can be exempted. In addition, the conditions for registration exemption under private placement were relaxed, and exemptions for crowdfunding were increased.	The Opinions provided specific guidelines on the suitability of biotechnology companies that were engaged in the production and R&D of pharmaceuticals (small molecule drugs), biopharmaceuticals and medical devices (including diagnostics), but were either not yet profitable or unprofitable. Whether other manufacturers of biotech products are suitable for listing will be considered on a case-by-case basis.	Arrangements will be made for special corporate governance issues such as possible unprofitable or unrecoverable losses and consideration of the VIE structure and differences in voting rights of some innovative companies. Specific operating details to be determined.
Scope of application	1. Public offering 2. Private placement 3. Crowdfunding	IPO	1. Domestic issuance of shares 2.CDR

Source: KPMG analysis

Capital markets in the US, Hong Kong and mainland China have all opened their doors to innovative biotechnology companies. The support of capital markets will meet the long-term funding needs of drug R&D, further reduce the financial pressures on pharmaceutical companies due to the need for large R&D investment, steadily increase R&D investment, improve drug quality and innovation, and drive innovation to bring new vitality to economic development.



Jeanne Zhang,
Head of Capital Markets,
KPMG China

“Multi-level and multi-channel capital markets play an extremely important role in promoting innovation and supporting the development of high-tech enterprises. In recent years, China and the global capital market have launched a series of new measures to provide more convenient conditions for the listing and financing of new economic enterprises. The ‘four new’ enterprises should seize the opportunity, choose the right way, and make use of the support of the capital market to achieve breakthrough development.”

Table: Key China economic indicators

			2016	2017	2017			2018		
	Indicator	Unit	Annual	Annual	October	November	December	January	February	March
Economic activity	GDP	RMB trillion	74.4	82.7	23.5			19.9		
		% YOY	6.7	6.9	6.8			6.8		
	Industrial production	% YOY	6.0	6.6	6.2	6.1	6.2	15.4	-2.1	6.0
	Industrial profit	% YOY YTD	8.5	21.0	23.3	21.9	21.0	16.1		11.6
	Retail sales	% YOY	10.4	10.2	10.0	10.2	9.4	9.7		10.1
	Fixed asset investment	% YOY YTD	8.1	7.2	7.3	7.2	7.2	7.9		7.5
	Property starts	% YOY YTD	8.1	7.0	5.6	6.9	7.0	2.9		9.7
	Property sales	% YOY YTD	22.5	7.7	8.2	7.9	7.7	4.1		3.6
	Land purchases	% YOY YTD	-3.4	15.8	12.9	16.3	15.8	-1.2		0.5
	Manufacturing PMI	Index	50.3	51.6	51.6	51.8	51.6	51.3	50.3	51.5
International trade and investments	Exports	% YOY	-7.7	7.9	6.2	11.5	10.8	11.0	44.1	-2.7
	Imports	% YOY	-5.5	16.1	17.3	17.8	4.7	36.9	6.1	14.4
	Trade surplus	USD billion	509.7	420.0	36.9	38.6	54.3	19.9	33.4	-5.0
	Foreign direct investment (FDI)	USD billion	126.0	131.0	9.0	18.8	11.1	12.1	9.0	13.5
	Outbound direct investment (ODI)	USD billion	170.1	120.1	8.3	21.2	12.5	10.8	6.0	8.7
Financial markets	RMB exchange rate	USD/RMB	6.64	6.75	6.62	6.62	6.59	6.44	6.32	6.32
	RMB real effective exchange rate	Index	124.4	120.6	121.6	121.4	121.6	122.6	127.6	125.8
	Shanghai composite index (Period end)	Index	3104	3307	3393	3317	3307	3481	3259	3169
	Money supply (M2)	% YOY	11.3	8.1	8.9	9.1	8.1	8.6	8.8	8.2
	Stock of total social financing (TSF)	% YOY	12.8	12.0	12.9	12.5	12.0	11.3	11.2	10.5
	New TSF	RMB billion	17802	19440	1036	1620	1140	3070	1174	1332
	New bank loans	RMB billion	12646	13523	663	1120	584	2900	839	1120
	SHIBOR (overnight)	%	2.07	2.63	2.66	2.73	2.67	2.65	2.59	2.61
Prices	Consumer price index (CPI)	% YOY	2.0	1.6	1.9	1.7	1.8	1.5	2.9	2.1
	Producer price index (PPI)	% YOY	-1.4	6.3	6.9	5.8	4.9	4.3	3.7	3.1
	Crude oil	USD/barrel	43.5	50.9	51.6	56.7	57.9	63.7	62.2	62.8
	Steel (rebar)	RMB/ ton	2476	3878	4030	4186	4663	4052	4104	3956
	Housing price index (70 cities)	% YOY	6.4	8.5	5.7	5.5	5.8	5.4	5.8	5.5

Source: Wind; KPMG analysis

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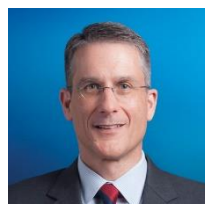
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