China Financial Stability Report 2019

Financial Stability Analysis Group of the People's Bank of China

China Financial Publishing House

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① This English edition is an unofficial translation of the *China Financial Stability Report 2019*, which was published in December 2019. In case of any discrepancies, the Chinese version shall govern.

Executive Summary

Since the start of 2018, the Chinese economy and the financial development has faced increasing external challenges, as the global economic and political landscape underwent significant adjustment. Against this backdrop, the financial sector has always stuck to the general principle of seeking progress while ensuring stability and the requirement of promoting high-quality development, effectively implemented macroeconomic policies and strengthened financial services to the real economy by overcoming difficulties and working diligently. As a result, the financial order has improved, financial reform and opening-up has made progress, the critical battle against major financial risks has witnessed a good start, and therefore the financial sector contributed positively to the sustained and healthy development of the economy and social stability. In 2018, China's GDP grew by 6.6 percent year on year, one of the top performers among the major economies. The employment kept stable, inflation remained generally modest, the balance of payments was in equilibrium, and the size of the foreign exchange reserves was basically stable. In the context of rising uncertainties in the global economic recovery, the steady performance of the Chinese economy is commendable, which not only lays a solid foundation for achieving the first centenary goal of a moderately prosperous society in all respects, but also remains an important force driving the global economic growth.

Recognizing our achievements, we are also keenly aware that, affected by various factors at home and abroad, some accumulated deep-rooted problems in the Chinese economy have come to the fore, which might trigger financial risks easily and frequently, and increase economic difficulties. From a global standpoint, the probability of a global economic slowdown after a period of recovery has increased, unilateralism and trade protectionism have been on the rise worldwide, the financial markets are highly sensitive to developments of trade relations, and uncertainties of the global liquidity have gone up. On the domestic front, financial risks have evolved with new characteristics. New

risks of problem institutions and illegal financial activities have been contained effectively, whereas the accumulated risks need to be further resolved. The financial markets are prone to external shocks, and the risks of exceptional market volatility cannot be ignored.

To effectively prevent and dissolve risks, the CPC Central Committee and the State Council have made important overall arrangements to win the critical battle against major financial risks, and have outlined the principles of "maintaining overall stability, proceeding in a coordinated manner, adopting differentiated policies, and addressing risks in a targeted and calibrated way". In the past one year, the People's Bank of China (PBC), under the leadership of the Financial Stability and Development Committee (FSDC) of the State Council, worked with other related government agencies and deployed differentiated policies to address in a well-targeted and timely manner key risks that threaten financial stability. It took active measures to gradually resolve persistent potential risks to achieve "slow release of air and soft landing". In light of institutional deficiencies, the PBC continuously advanced regulatory reforms to overcome shortcomings. It also strengthened day-to-day risk monitoring and assessment and made plans to deal with various risks, such as "black swan" and "grey rhinoceros" events that might happen in the future. In the meantime, in the process of addressing and resolving risks, efforts were made to manage well the pace and intensity of policies, make preemptive adjustments and fine-tunings when appropriate, and avoid "risks arising from risk resolution", so as to effectively ensure stable functioning of the financial markets and financial institutions.

We have made headways in forestalling and addressing financial risks through a raft of intensive measures over the past year. Firstly, the macro leverage ratio has been put under control. Measures such as managing well monetary supply on the macro level, as well as promoting corporate deleveraging, curbing rapid growth of the leverage of the household sector and actively resolving implicit liabilities of local governments on the micro level have preliminarily contained the rapid growth momentum of the macro leverage ratio. Secondly, high-risk institutions were handled in a proper and orderly manner. The PBC decisively took over the Baoshang Bank in line with relevant laws and regulations to maximally protect the legitimate rights and interests of depositors and other clients, broke the expectation of implicit guarantee and strengthened market discipline. The timely takeover "stopped bleeding", and averted further deterioration of risks. The process went smoothly, and there were no mass events such as a bank run. Thirdly, the financial order was forcefully rectified. Efforts were made to earnestly conduct the special campaign against risks of Internet finance, continue to severely crack down on illicit fund-raising activities, and steadily identify and rectify problems in various exchanges, so as to reduce existing risks in an appropriate and well-paced manner. Fourthly, risks of financial market volatility were addressed. Multiple policy instruments were deployed to increase liquidity supply to effectively smooth out short-term volatilities, and dissolve the partial and structural liquidity risks of small- and medium-sized banks. Measures were taken to deal with bond defaults in an orderly manner, and to steadily resolve risks associated with stock pledging. The PBC also effectively responded to shocks from cross-border capital flows and maintained the RMB exchange rate at a reasonable and equilibrium level. Fifthly, regulatory shortcomings were addressed. New regulations governing asset management and the related details for implementation were introduced to rectify market chaos. As a result, shadow banking risks were well contained. The PBC improved the financial regulatory framework by announcing guidelines on regulation of systemically important financial institutions and developing the tentative measures for regulation of financial holding companies. In general, the rapid accumulation of financial risks over the past few years has been gradually released, and the explicit financial risks have been addressed in an orderly way. The financial markets have fared well, with an improved financial regulatory framework and no occurrence of systemic financial risks.

Going forward, latent risks cannot be eliminated within a short period of time, as the sources of disruption and risks are increasing globally, and downward pressures are mounting on the domestic economy. Nevertheless, the Chinese economy remains resilient, with a high household savings ratio, the dynamic micro foundation, and sound performance of important financial institutions. Equipped with an adequate toolkit of macroeconomic policies, a sound regulatory framework and rich experiences in forestalling and dissolving risks, we are fully capable, confident and well-positioned to overcome various difficulties and challenges. Faced with a complex situation both at home and abroad, we need to keep clear-minded, bear firmly in mind the long-term trend, focus on the principal contradictions, learn to turn crises into opportunities, and do our own homework well. Efforts are needed to stick to the general principle of seeking progress while ensuring stability, continue to pursue the supply-side structural reforms as our main task, advance reform and opening-up, focus on "consolidating, strengthening, upgrading, and ensuring unimpeded flows in the economy" and strive to ensure stability in employment, financial operations, foreign trade, foreign investment, domestic investment and expectations. We will improve the financing structure and the system of financial institutions, the market system and the product system, and enhance adaptability and flexibility of financial services to the real economy. Resolute measures will be taken to win the critical battle of forestalling and addressing major financial risks, strike a good balance between stabilizing growth and preventing risks, keep all parties concerned accountable, properly handle and resolve various risk potentials, so as to hold onto the bottom line of preventing systemic financial risks and maximally protect the legitimate rights and interests of the people.

Abbreviations and Acronyms

ABC	Agricultural Bank of China
ABS	Asset-backed securities
ADGM	Abu Dhabi Global Market
AMAC	Asset Management Association of China
AMP	Asset management product
ASIC	Australian Securities and Investments Commission
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BNM	Bank Negara Malaysia
BOC	Bank of China
BOE	Bank of England
BOP	Balance of payments
CAR	Capital adequacy ratio
CBIRC	China Banking and Insurance Regulatory Commission
CBRC	China Banking Regulatory Commission
CCAR	Comprehensive Capital Analysis and Review
CCB	China Construction Bank
CCP	Central counterparty
CCyB	Countercyclical capital buffer
CDB	China Development Bank
CET1	Common Equity Tier 1
CPC	Communist Party of China
CPI	Consumer price index
CSA	Canadian Securities Administrators
CSRC	China Securities Regulatory Commission
EBA	European Banking Authority
ECB	European Central Bank
ESRB	European Systemic Risk Board
EUR	Euro

FCA	Financial Conduct Authority
FDF	Federal Department of Finance
FDIC	Federal Deposit Insurance Corporation
FPC	Financial Policy Committee
FSB	Financial Stability Board
FSDC	Financial Stability and Development Committee
FSOC	Financial Stability Oversight Council
GBP	Great Britain Pound
GDP	Gross Domestic Product
G-SIB	Global systemically important bank
HKMA	Hong Kong Monetary Authority
IADI	International Association of Deposit Insurers
IASB	International Accounting Standards Board
ICBC	Industrial and Commercial Bank of China
IPO	Initial public offering
IT	Information technology
JPY	Japanese Yen
LCR	Liquidity Coverage Ratio
LEI	Legal Entity Identifier
LTV	Loan-to-value
MAS	Monetary Authority of Singapore
MLF	Medium-term Lending Facility
MOF	Ministry of Finance
MPA	Macroprudential Assessment
NAFMII	National Association of Financial Market Institutional Investors
NBS	National Bureau of Statistics
NDRC	National Development and Reform Commission
NPA	Non-performing asset
NPL	Non-performing loan
NSCA	Non-standard credit asset
NSFR	Net Stable Funding Ratio
OCC	Office of the Comptroller of the Currency
OTC	Over the counter
PBC	People’s Bank of China
P/B	Price-to-book
P/E	Price-to-earnings

PPI	Producer price index
RMB	Renminbi
ROA	Return on assets
ROE	Return on equity
ROI	Return on investment
RRR	Reserve requirement ratio
RWA	Risk-weighted asset
SAFE	State Administration of Foreign Exchange
SAR	Special administrative region
Shibor	Shanghai Interbank Offered Rate
SIFI	Systemically important financial institution
SME	Small- and medium-sized enterprise
SOE	State-owned enterprise
SPV	Special purpose vehicle
SSE	Shanghai Stock Exchange
SyRB	Systemic risk buffer
TLAC	Total Loss-absorbing Capacity
U.S.	United States
USD	U.S. Dollar
WTO	World Trade Organization
y-o-y	Year-on-year

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Chapter I

Macroeconomic Performance

In 2018, the Chinese economy continued to grow in a steady manner with improved structure. However, a more complex and grave situation both at home and abroad and uncertainties from trade frictions that affected the global economy brought changes in what was a generally stable domestic economic performance, some of which gave cause for concern, and exerted downward pressures on the economy. Going forward, efforts will be made to follow the general principle of pursuing progress while ensuring stability, to work holistically to maintain stable growth, advance reform, make structural adjustments, improve living standards, and guard against risks. Measures will be taken to ensure stability in employment, financial operations, foreign trade, foreign investment, domestic investment and expectations, and boost market confidence, so as to maintain sustained and sound development of the economy and stability of the financial markets.

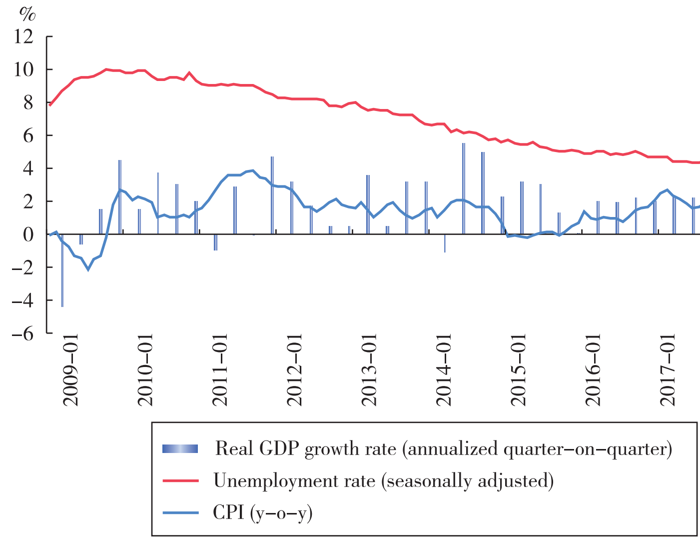
I.International Macroeconomic and Financial Environment

1. Economic Developments in Major Economies

In general, the global economy continued to grow from the start of 2018, but in a less synchronized manner, and downside risks wound increase in the future. The U.S. economy remained generally stable, the growth momentum slowed down in the Euro area, and the economic indicators became more volatile in Japan, while growth in emerging market economies diverged.

The U.S. economy grew rapidly before slowing down, and inflation and employment remained generally stable. The annualized quarter-on-quarter GDP grew by 2.5 percent, 3.5 percent, 2.9 percent and 1.1 percent in the four quarters respectively, resulting in 2.9 percent for the entire year. Inflation hiked before declining. The consumer price index (CPI) reached a high of 2.9 percent in June and July 2019 before sliding to 2.2 percent and 1.9 percent in November and December respectively. The core CPI after adjusting for highly fluctuating prices of energy and food items rose modestly and hovered slightly above 2 percent since March. The labor market continued to improve, as the unemployment rate remained at a subdued level throughout 2018, and dropped to 3.7 percent in Q3, hitting its lowest level in the past 50 years, but edged up to 3.9 percent in December (Figure 1.1).

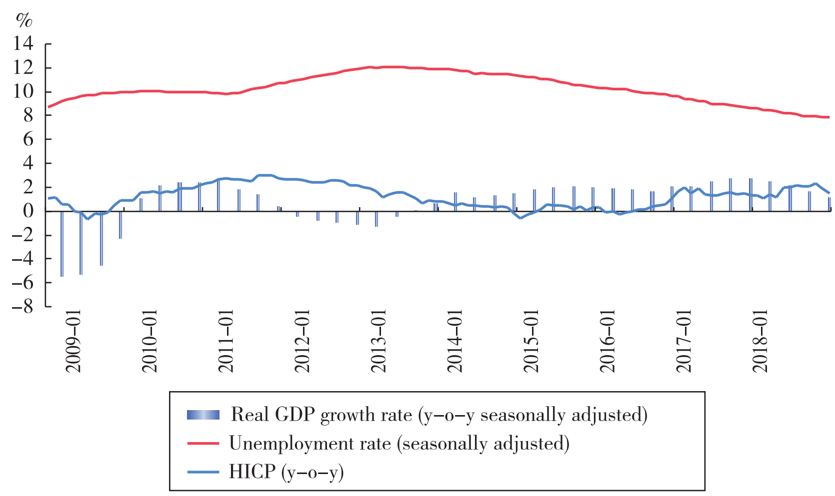
Figure 1.1 Major Economic and Financial Indicators in the U.S.



Source: The U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor Statistics, the U.S. Federal Reserve, and the Reuters.

Economic growth slowed down in the Euro area. Growth in the Euro area posted 2.5 percent, 2.2 percent, 1.7 percent and 1.2 percent in the four quarters, averaging 1.9 percent for the whole year, lower than the growth of 2.4 percent recorded in 2017. Inflation was generally modest, with the y-o-y core CPI hovering around 1.0 percent throughout the year. The unemployment rate remained at a subdued level, and dropped to 7.9 percent at end-2018 from 8.6 percent at end-2017 (Figure 1.2).

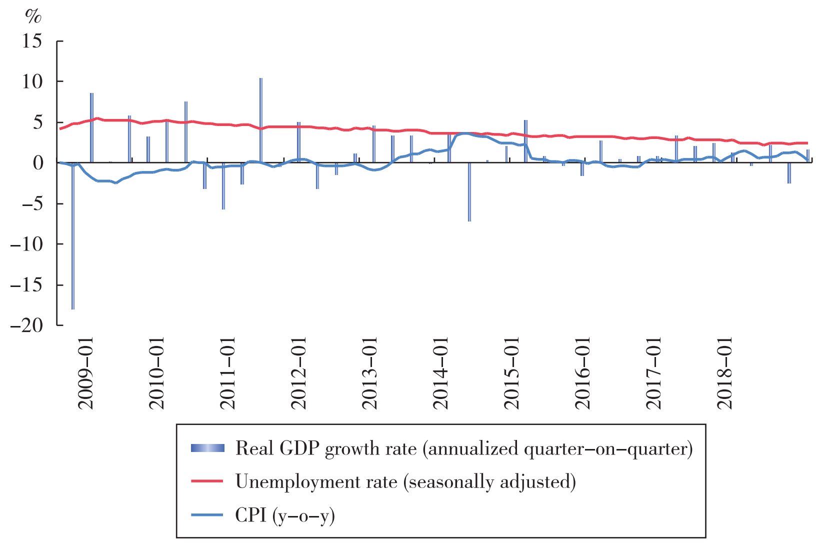
Figure 1.2 Major Economic and Financial Indicators in the Euro Area



Source: Eurostat, the ECB and the Reuters.

In Japan, the economy witnessed more fluctuations. The annualized quarter-on-quarter GDP growth registered -0.3 percent, 2.2 percent, -2.5 percent and 1.6 percent in the four quarters in 2018, resulting in 0.8 percent for the whole year. Affected by the natural disaster and other factors, growth in Q3 recorded the biggest decline since Q2 2014. Inflation remained weak, as CPI fell from 1.5 percent at the beginning of the year to less than 1 percent in the middle of the year, and rebounded only slightly afterwards. The labor market was close to full employment, as the unemployment fluctuated around 2.5 percent throughout 2018 (Figure 1.3).

Figure 1.3　Major Economic and Financial Indicators in Japan



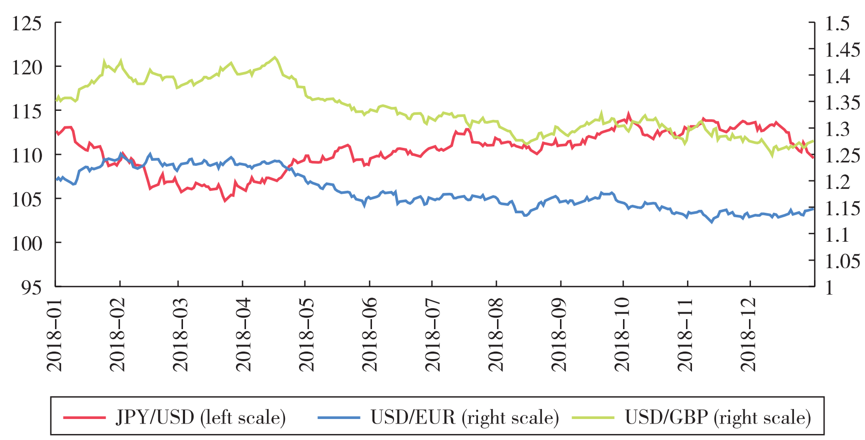
Source: Cabinet Office of Japan, Statistics Bureau of Japan, the Bank of Japan and the Reuters.

Growth in emerging market economies diverged. The growth momentum picked up in Brazil, as the y-o-y GDP grew by 1.2 percent, 0.9 percent, 1.3 percent and 1.1 percent in the four quarters in 2018 respectively, averaging 1.1 percent for the whole year. The CPI grew by 3.75 percent, and the unemployment rate posted 11.6 percent at end-2018. Economic growth in Russia accelerated, as the y-o-y GDP registered 1.9 percent, 2.2 percent, 2.2 percent and 2.7 percent in the four quarters respectively, resulting in 2.3 percent for the whole year. The CPI hiked by 4.26 percent, and inflation rebounded slightly after anchoring. The Indian economy grew rapidly, as the y-o-y GDP growth posted 8.9 percent, 8.0 percent, 7.0 percent and 6.6 percent in the four quarters respectively, resulting in 7.6 percent for the whole year. CPI grew by 2.11 percent, and the inflationary pressures eased slightly. Growth remained weak in the first half of 2018 in South Africa but turned around in the latter half of the year, up 0.79 percent for the whole year. The unemployment rate remained stubbornly high and reached 27.1 percent at the end of the year. Affected by financial market volatilities, the GDP growth in Argentina and Turkey declined significantly in 2018. In particular, GDP growth in Argentina posted -2.5 percent.

2. *International Financial Market Performance*

The U.S. Dollar Index rose, and currencies of some of the emerging market economies devalued notably. The U.S. Dollar Index closed at 96.07 at end-2018, gaining 4.09 percent from end-2017. The exchange rate of the euro against the U.S. dollar closed at USD 1.1469 per euro, indicating depreciation of 4.39 percent compared with that at end-2017. The British pound stood at USD 1.2757 per pound, depreciating by 5.59 percent from the end of the last year. The Japanese yen closed at JPY 109.56 per US dollar, strengthening 2.84 percent compared with the previous year (Figure 1.4). Among the emerging market currencies, the Argentine peso, the Turkish lira, the Brazilian real, the Indian rupee, the Pakistani rupee and the Russian ruble depreciated by 50.57 percent, 28.34 percent, 14.65 percent, 8.24 percent, 20.35 percent, and 17.25 percent respectively against the US dollar, compared with the previous year.

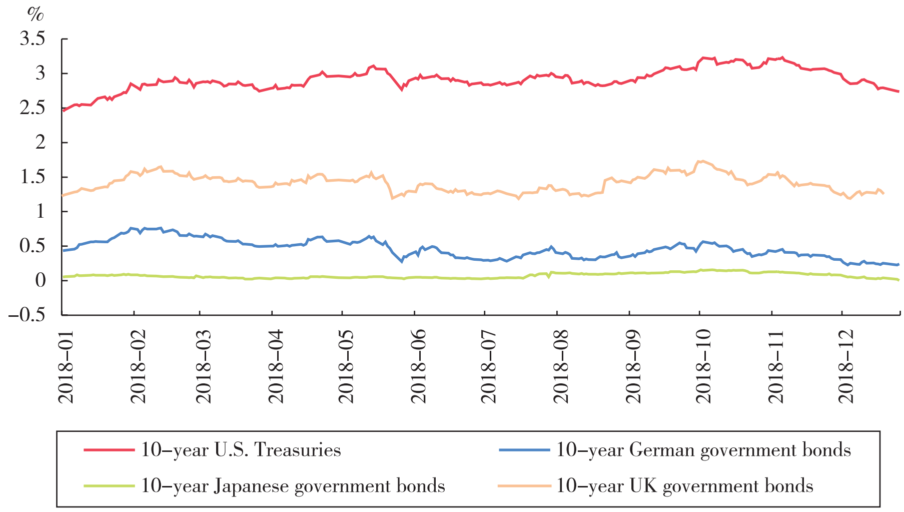
Figure 1.4 Exchange Rate Movements of the Major Currencies



Source: The Reuters.

The yields of government bonds in the major economies diverged. At end-2018, the yield of 10-year U.S. Treasuries closed at 2.691 percent, up by 28 basis points (bps) from the end of the last year. The yield of the UK government bonds rose by 8.1 bps. The yields of 10-year German and Japanese government bonds declined by 17.8 bps and 4.8 bps respectively from end-2017 (Figure 1.5). Among the emerging market economies, the yields of 10-year Argentine, Turkish, Russian and Mexican government bonds went up 562 bps, 440 bps, 114 bps and 93 bps respectively compared with the previous year, whereas the yield of the 10-year Brazilian government bonds dropped by 100 bps.

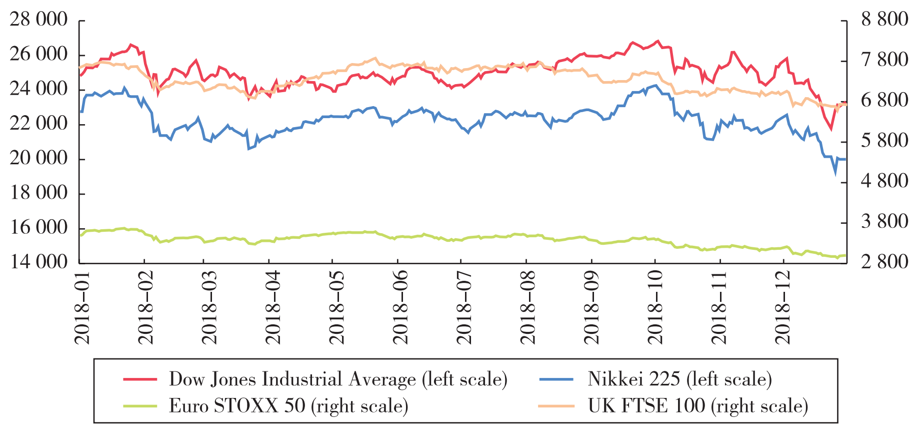
Figure 1.5 Yields of Government Bonds in the Major Economies



Source: The Reuters.

The stock markets of the major economies peaked before falling, whereas stock market indices of the emerging market economies exhibited a mixed picture. As of end-2018, the U.S. Dow Jones Industrial Average lost 5.63 percent from end-2017, whereas the Japanese Nikkei 225, the German Frankfurt DAX, the Euro STOXX 50, and the UK FTSE 100 lost 12.08 percent, 18.26 percent, 14.34 percent, and 12.48 percent respectively (Figure 1.6). Among the emerging market economies, the Brazilian BOVESPA, the Argentine BUSE MERVAL, and the Indian SENSEX indices gained 15.03 percent, 0.75 percent and 5.91 percent respectively throughout 2018, whereas the Mexican MXX, the Turkish BIST30 and the Russian RTS fell 15.63 percent, 19.54 percent and 7.65 percent respectively.

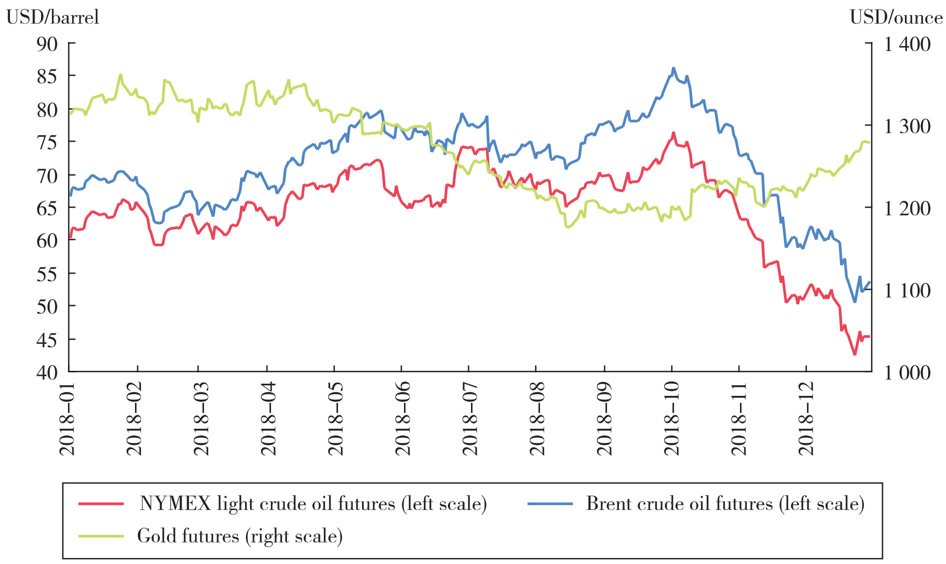
Figure 1.6 Major Stock Indices



Source: The Reuters.

Oil and gold prices experienced more fluctuations. As of end-2018, the U.S. Commodity Research Bureau (CRB)'s composite spot price closed at 409.17, down by 23.17 points from end-2017. The oil price rallied before falling. The London Brent crude oil futures and NYMEX light crude oil futures closed at USD 53.8 and USD 45.41 per barrel, declining by 19.5 percent and 24.8 percent respectively from the end of the previous year. International gold prices fell before edging up amidst intensified volatilities. At end-2018, the gold futures price stood at USD 1 278.3 per ounce, down by 2.1 percent from end-2017 (Figure 1.7).

Figure 1.7 Gold and Crude Oil Prices in the International Markets



Source: The Reuters.

3. Risks and Challenges

In its updated July 2019 *World Economic Outlook*, the International Monetary Fund (IMF) predicted that the global economy would grow 3.2 percent in 2019, representing a downward adjustment of 0.1 percentage point from its April forecast. In particular, the growth forecast for the emerging market economies was 4.1 percent, down by 0.3 percentage point from its April forecast, while that for the advanced economies was 1.9 percent, up by 0.1 percentage point from its April forecast. Going forward, the global economy would probably face the following risks:

Policy space to deal with a tepid global economic growth momentum remains limited. Despite the current growing trend, micro-level data have pointed to deteriorating expectations for future growth, and rising pessimism among investors. Policy space is rather limited in various countries, if the global economy slides into recession. Regarding monetary policy, the U.S. Federal Reserve have cut the Federal Funds Rate on

3 occasions since the beginning of 2019, and the ECB and the Bank of Japan have limited space for further rate cut since they have kept their respective benchmark rates close to 0. Regarding fiscal policy, high deficit and elevated debt levels in most advanced economies have constrained the room for fiscal stimulus.

Uncertainties brought about by trade tensions have intensified. Trade protection measures violate WTO rules, undermine the multilateral trade system, disrupt the global industrial and supply chains, dampen market confidence, and therefore would pose serious challenges to the global economic recovery and inflict on economic globalization. Recently, some enterprises have scaled back investment plans due to uncertainties from trade tensions and adjusted their supply chains. As a result, some countries were impacted by weakening external demand. In the meantime, affected by the trade tensions, the global financial markets fluctuated significantly. Negotiations to resolve the trade frictions have been long and difficult. Trade frictions, if intensify again, would undermine the global potential growth, push up inflation, damage all sectors of the economy and result in more financial volatilities.

Vulnerabilities in some of the major economics have increased. Protracted easy financial conditions after the 2008 financial crisis led to corporate debt overhang and rising economic vulnerabilities in the major economies. The credit standing of the investment-grade bonds and leveraged loans in some countries started to deteriorate. Public debt increased in the U.S. due to its pro-cyclical fiscal policy. Sovereign debt risks of Italy and other countries in the Euro area became more pronounced. Some emerging market economies (i.e., Argentina and Turkey) are experiencing painful macroeconomic adjustment. Once financial conditions tighten, risks from the above-mentioned vulnerabilities would materialize, worsen the solvency and re-financing risks, and trigger an abrupt shift of global risk appetite.

Intertwining uncertainties would magnify potential vulnerabilities. The rapid development of Fintech, while facilitating financial services, would create new risks and pose challenges to the conventional financial system and financial regulation. The outlook of Brexit remains unclear, and a hard Brexit would have implications for the exchange rates of the euro and the pound sterling, and send shock waves to the global financial markets. Geopolitical confrontations happen from time to time, and would make the external environment more complicated and add to global economic uncertainties.

II. China's Economic and Financial Performance

In 2018, faced with complex economic and financial conditions, the relevant government agencies strictly followed the strategic arrangements laid out in the 19th CPC National Congress, stuck to the general principle of seeking progress while ensuring stability and the requirements for high-quality development, and effectively dealt with the changes in the external environment by overcoming difficulties and making solid progress. Macroeconomic management targets were achieved. The three critical battles in preventing major financial risks, poverty alleviation and pollution reduction started well, and the supply-side structural reforms were deepened. More reform and opening-up measures were launched, and the trade frictions with the U.S. were handled appropriately. These efforts helped to improve the people's living standards, ensure sound and sustained economic development and a stable social order, and move further toward the objective of building a moderately prosperous society in an all-round way.

1. Economic Growth Remained Stable, and the Industrial Structure Continued to Improve

According to preliminary statistics of the National Bureau of Statistics (NBS), GDP registered RMB 90.03 trillion in 2018, up 6.6 percent y-o-y in comparable terms. Quarterly GDP growth was 6.8 percent, 6.7 percent, 6.5 percent, and 6.4 percent y-o-y respectively, maintaining the steady growth trend (Figure 1.8). Broken down by industry, the added value of the primary, the secondary and the tertiary industries posted RMB 6.47 trillion, RMB 36.60 trillion, and RMB 46.96 trillion respectively, up by 3.5 percent, 5.8 percent, and 7.6 percent y-o-y respectively. The added value of the primary industry as a share of the GDP fell by 0.4 percentage point from the previous year to 7.2 percent. The added value of the secondary industry and the tertiary industry accounted for 40.7 percent and 52.2 percent of the GDP, up by 0.2 and 0.3 percentage point respectively from 2017.

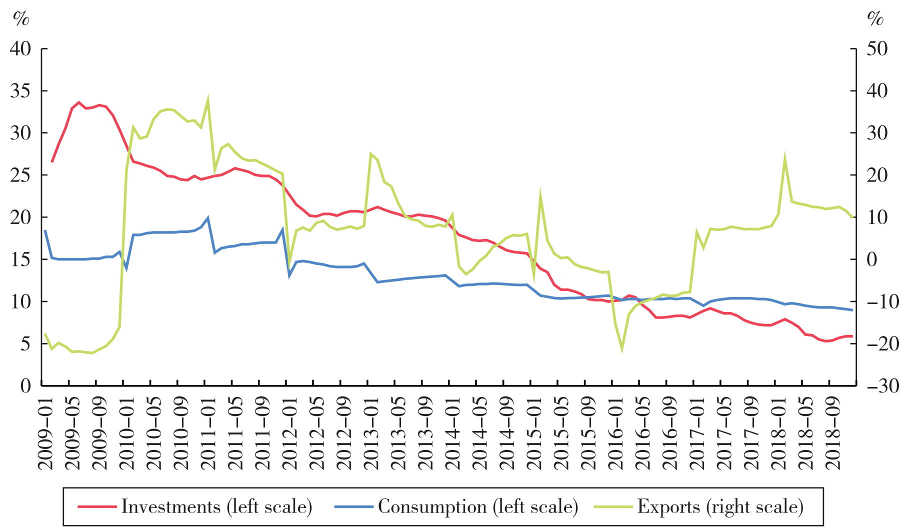
Figure 1.8 China's Economic Growth

Source: The NBS.

2. The Demand Structure Continued to Improve, and the BOP Remained Generally in Equilibrium

In 2018, fixed-asset investments (excluding those by rural households) reached RMB 63.56 trillion, up by 5.9 percent y-o-y, which was 1.3 percentage points lower than that in 2017. Total retail sales grew by 9.0 percent y-o-y to RMB 38.10 trillion, a deceleration of 1.2 percentage points from 2017. Goods imports and exports reached RMB 30.51 trillion, up 9.7 percent y-o-y. Among this total, exports gained 7.1 percent y-o-y to RMB 16.42 trillion, and imports grew 12.9 percent y-o-y to RMB 14.09 trillion, resulting in a trade surplus of RMB 2.33 trillion. The demand structure continued to improve, and consumption played a bigger role in driving economic growth. In 2018, contribution of final consumption to the GDP reached 76.2 percent, an increase of 18.6 percentage points from a year earlier. Contribution of capital formation posted 32.4 percent, a decline of 1.4 percentage points from 2017. Net exports of goods and services contributed -8.6 percent to GDP growth, a decrease of 17.2 percentage points from the previous year. Domestic demand has become the anchor for stable economic growth (Figure 1.9).

Figure 1.9 Growth of Consumption, Investments and Exports



Source: The NBS, the General Administration of Customs.

In 2018, the current account surplus reached USD 49.1 billion, or 0.4 percent of the GDP, down by 1 percentage point from the previous year. The capital and financial account registered a surplus of USD 111.1 billion, including a surplus under the non-reserve financial account of USD 130.6 billion and an increase of reserve assets of USD 18.9 billion. At end-2018, total foreign-exchange reserves stood at USD 3.07 trillion, representing a decrease of USD 67.2

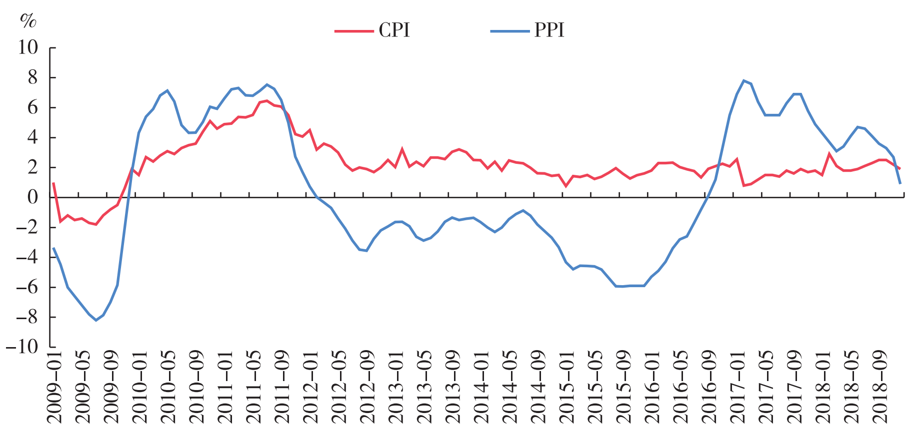
billion or 2.1 percent from end-2017.

3. *CPI Rose Modestly, whereas PPI Growth Decelerated*

In 2018, the CPI rose 2.1 percent y-o-y, up 0.5 percentage point from 2017. Quarterly CPI growth registered 2.2 percent, 1.8 percent, 2.3 percent, and 2.2 percent respectively. Broken down by food and non-food items, food prices went up by 1.8 percent y-o-y, which was 3.2 percentage points higher than that in 2017. Non-food prices moved up by 2.2 percent y-o-y, 0.1 percentage point lower than that in 2017. Broken down by consumer goods and services, the prices of consumer goods grew by 1.9 percent y-o-y, which was 1.2 percentage points higher than that in 2017. Prices for services climbed by 2.5 percent, which was 0.5 percentage point lower than that in 2017.

The PPI rose by 3.5 percent in 2018, a deceleration of 2.8 percentage points from 2017. Quarterly PPI growth recorded 3.7 percent, 4.1 percent, 4.1 percent, and 2.3 percent respectively. In particular, prices of consumer goods were generally stable, growing 0.5 percent y-o-y and representing a deceleration of 0.2 percentage point over 2017. Prices of capital goods rose by a relatively large margin of 4.6 percent y-o-y, which was 3.7 percentage points lower than that in 2017. The Purchasing Price Index of Raw Materials, Fuel and Power (PPIRM) went up 4.1 percent y-o-y, down by 4.0 percentage points from the previous year, with quarterly growth at 4.4 percent, 4.4 percent, 4.7 percent, and 3.0 percent respectively (Figure 1.10).

Figure 1.10 Monthly Movements of the Major Price Indices, y-o-y



Source: The NBS.

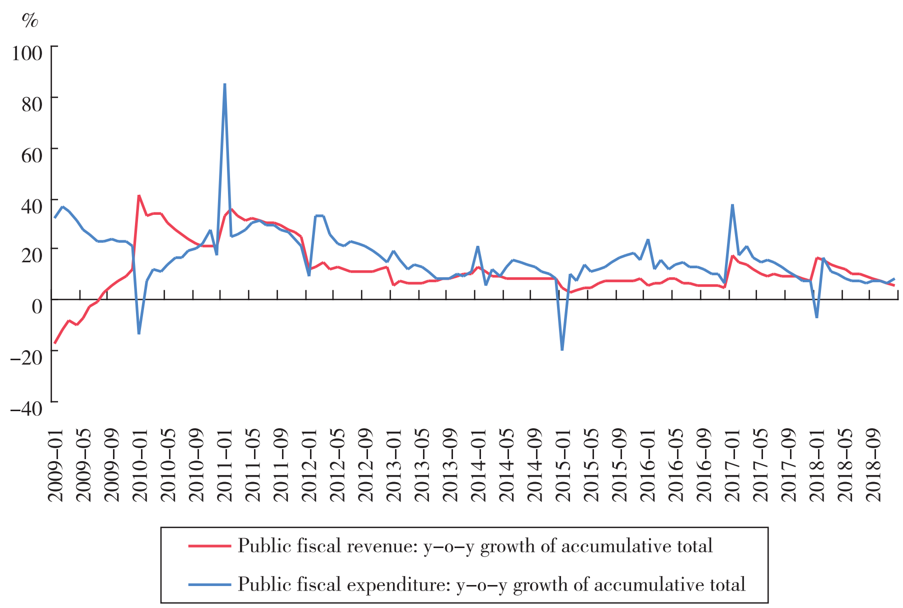
4. *Fiscal Revenue and Expenditure Remained Generally Stable*

In 2018, total fiscal revenue reached RMB 18.34 trillion, up by 6.2 percent y-o-y, representing a deceleration of 1.2 percentage points. Among this total, central government revenue went up by 5.3 percent y-o-y to RMB

8.55 trillion, accounting for 46.6 percent of the total fiscal revenue. Local government revenue grew 7.0 percent y-o-y to RMB 9.79 trillion. Broken down by tax and non-tax revenue, tax revenue rose by 8.3 percent y-o-y to RMB 15.64 trillion, accounting for 85.3 percent of the total fiscal revenue; whereas non-tax revenue declined by 4.7 percent y-o-y to RMB 2.70 trillion.

Fiscal expenditure increased by 8.7 percent y-o-y to reach RMB 22.09 trillion, an acceleration of 1.1 percentage points from the previous year. Among this total, central government expenditure grew by 8.8 percent y-o-y to RMB 3.27 trillion, whereas local government expenditure increased by 8.7 percent y-o-y to RMB 18.82 trillion (Figure 1.11).

Figure 1.11 Growth of Fiscal Revenue and Expenditure



Source: The MOF.

5. Structural Deleveraging Made Good Progress

Since the start of 2018, the macro leverage ratio further slowed down, indicating initial results of structural deleveraging. The macro leverage ratio stood at 249.4 percent at end-2018, continuing the declining trend amidst volatility since end-2017. The leverage of the corporate sector fell markedly. It dropped to 152 percent at end-2018 from the peak of 157.8 percent in Q1 2018, and became the primary factor in pushing down the macro leverage ratio. The risk of government debt (by official definition) has been well contained. Government debt stood at 37.1 percent at end-2018. However, on the other side, structural problems remain concerning leverage of different sectors, whose risks warrant continued attention.

6. Profits of Industrial Enterprises Kept Growing Relatively Fast

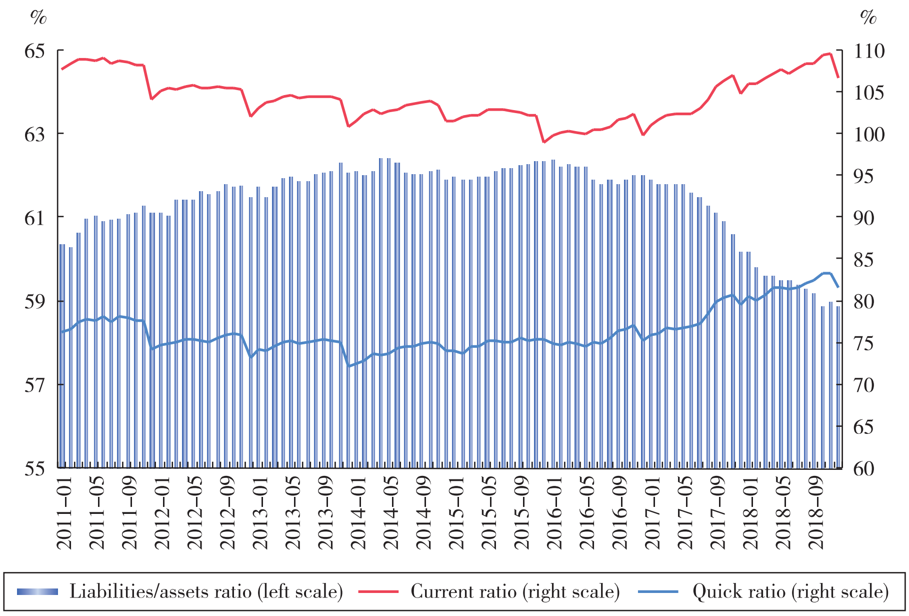
In 2018, revenue of main business of statistically large industrial firms increased by 8.5 percent y-o-y to RMB 102.2 trillion. Cost of their main business grew by 8.3 percent y-o-y to RMB 85.7 trillion. Realized profits totaled RMB 6.64 trillion, up by 10.3 percent y-o-y. The profit margin of the main business posted 6.49 percent, an improvement of 0.11 percentage point[①] y-o-y. Among the 41 industrial categories, 32 earned more profits than in the previous year, and 9 industries witnessed declines in gross profits.

According to the Survey of 5 000 Industrial Enterprises conducted by the People's Bank of China, revenue and profits of the main business of the sampled enterprises increased, and the liabilities/assets ratio fell. In terms of profits, revenue of the main business of the sampled enterprises improved by 7.9 percent, a deceleration of 5.6 percentage points from the previous year[②]. Gross profits grew by 9.3 percent y-o-y, representing a deceleration of 38 percentage points compared to that in 2017. In terms of asset turnover, the inventory turnover ratio of the sampled enterprises improved slightly from the last year, whereas the total asset turnover ratio was on a par with that in the previous year. The operating cycle was shortened. In 2018, the inventory turnover of 5 000 industrial enterprises posted 5.6 times, up by 0.3 times from 2017; whereas the total asset turnover was 0.8 times, on a par with that in 2017. The operating cycle was 125.4 days, 7.7 days fewer than that of the previous year. The liabilities/assets ratio declined modestly, and the long-term repayment capability improved. At end-2018, the liabilities/assets ratio dropped by 1.3 percentage points from 2017 to 58.9 percent. The current ratio was 106.8 percent, an increase of 2.1 percentage points from end-2017. The quick ratio was 81.7 percent, gaining 2.2 percentage points y-o-y (Figure 1.12). The interest coverage multiplier was 6 times, up 0.4 times y-o-y.

① According to the NBS, the above data are calculated on a comparable basis, taking into consideration adjustment in statistical coverage, improved statistical survey, deletion of overlapped data, divestitures from corporate restructuring and other factors.

② Due to adjustment of the sampled enterprises, updating of financial data and other reasons, these above data are calculated on a comparable basis.

Figure 1.12 Liabilities/assets Ratio, Current Ratio and Quick Ratio of 5 000 Industrial Enterprises

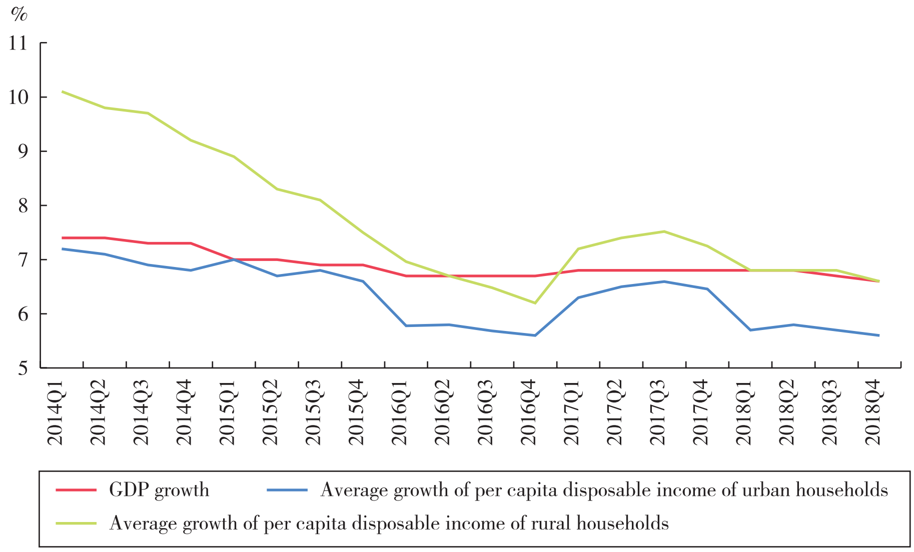


Sources: The PBC.

7. Employment Remained Generally Stable, and Household Income Grew Steadily

In 2018, newly employed population in the urban areas reached 13.61 million, 100 000 more than that of the previous year. Urban registered unemployment rate remained within a range of 4.8~5.1 percent. Per capita disposable income posted RMB 28 228, representing a price-adjusted y-o-y real growth of 6.5 percent, basically aligned with economic growth. Per capita disposable income of urban dwellers reached RMB 39 251, representing a real growth of 5.6 percent. Per capita disposable income of rural residents registered RMB 14 617, representing a y-o-y real growth of 6.6 percent. The income gap between urban and rural households narrowed by 0.02 from the previous year, with the urban income 2.69 times of the latter's (Figure 1.13).

Figure 1.13 Growth of Per Capita Income of Urban and Rural Households and GDP



Source: The NBS.

8. Growth of Housing Sales Slowed Down, and Loans to the Real Estate Sector Remained Generally Stable

Growth of housing sales continued to slow down, and growth of housing prices in cities whose housing is much sought after decelerated. In 2018 the total floor area of sold units posted 1.717 billion square meters, up 1.3 percent y-o-y. Among this total, the total floor area of sold units of residential housing registered 1.479 billion square meters, up by 2.2 percent y-o-y. Growth of sales of commercial-use housing and residential housing both continued the slowing trend since 2017, down by 6.4 and 3.1 percentage points respectively from the previous year. Housing sales reached RMB 15 trillion in 2018, up 12.2 percent y-o-y, which was 1.5 percentage points lower than that in 2017. According to the NBS, for tier-1 cities among the 70 large- and medium-sized cities, the prices of newly-built residential housing recorded y-o-y growth of 0.5 percent, down by 9.6 percentage points; and the prices of resold residential housing grew by 0.7 percent y-o-y, down by 11.3 percentage points. For tier-2 cities, the prices of newly-built residential housing gained 7.6 percent y-o-y, down by 1.5 percentage points; and the prices of resold residential housing grew by 5.8 percent y-o-y, a deceleration of 2.1 percentage points. For tier-3 cities, the prices of newly-built residential housing recorded y-o-y growth of 7.8 percent, on a par with that in the previous year; and the prices of resold residential housing grew by 5.9 percent y-o-y, an acceleration of 0.5 percentage point.

Real estate related loans grew steadily on the whole, whereas growth of personal mortgage loans moderated. At end-2018, outstanding real-estate lending stood at RMB 38.7 trillion, up 20 percent y-o-y and a deceleration of 0.85 percentage point from end-2017. Specifically, outstanding real-estate development loans reached RMB 10.19 trillion, up by 22.6 percent y-o-y, an acceleration of 5.5 percentage points from the previous year. Outstanding housing development loans grew by 31.9 percent y-o-y to RMB 7.33 trillion, representing an acceleration of 5.6 percentage points from 2017. The acceleration was mainly a result of developers bringing loans back onto the balance sheet. Outstanding personal mortgages reached RMB 25.85 trillion, up by 17.8 percent y-o-y and a deceleration of 4.4 percentage points from end-2017, and down by 19 percentage points from the peak in 2016.

III. Outlook

The year 2019 marks the 70th anniversary of the founding of the People's Republic of China, and a critical year for the building of a moderately prosperous society in all respects. Therefore, it is of significant importance to deliver a good job in developing the economy. Confronted with a complex economic and financial situation and grave domestic and external challenges, we need to follow the Xi Jinping Thought on Socialism with Chinese Characteristics for A New Era, fully implement the principles laid out in the 19th CPC National Congress, the second, third and fourth Plenary Sessions of the 19th CPC Central Committee, and advance the five-sphere integrated plan and the four-pronged comprehensive strategy. We must stay committed to the general principle of pursuing progress while ensuring stability, to the new development philosophy, and to promoting high-quality development. Keeping supply-side structural reform as our main task, we must deepen market-based reforms, expand high-standard opening up, and speed up our efforts to develop a modernized economy. We need to ensure continued success in the critical battles against major financial risks, poverty, and pollution and, with strong moves, unlock the vitality of our micro entities. We need to develop new and improved approaches to macro management, and take coordinated steps to achieve steady growth, advance reform, make structural adjustments, improve living standards, guard against risks, and ensure stability. We must keep major economic indicators within an appropriate range and work to ensure stability in employment, financial operations, foreign trade, foreign investment, domestic investment, and expectations. We need to bolster market confidence, and ensure sustained and healthy economic development and overall social stability. In meeting these requirements, we will lay a decisive foundation for completing the building of a moderately prosperous society in all respects.

Countercyclical adjustment will be conducted in a timely and proper manner. We will continue to implement a proactive fiscal policy and a prudent monetary policy, and conduct preemptive adjustments and fine tunings when appropriate to stabilize aggregate demand. Intensity and efficiency of the proactive fiscal policy will be enhanced by carrying out tax and fee reduction on a larger scale and increasing special bond issuance by local governments by a relatively large margin. Efforts will be made to maintain a prudent monetary policy with appropriate intensity, and aim to keep reasonably adequate liquidity, to improve the monetary policy transmission mechanism, to increase the share of direct financing, and to address the difficulty of private enterprises and small and micro businesses in accessing affordable financing. Structural policies call for reinforced institutional reforms, to deepen the reforms in state-owned enterprises (SOEs), the fiscal and financial system, land, market access and social management, strengthen the fundamental role of competition policies, create a level playing field and encourage rapid development of small- and medium-sized enterprises (SMEs).

Supply-side structural reforms in the financial sector will be deepened. Efforts will be made to provide well-targeted financial services to develop the industrial system, the market system, the regional development system and the green development system of the modern economy, with a view to building a full-dimensional and multi-layered financial support and service system coveringventure capital, bank lending, the bond market and the equity market. The focus will be laid upon adjusting and improving the structure of the financial system to enhance the financing structure, the system of financial institutions, the market system and the product system. A multi-layered, wide-ranging and differentiated banking system will be promoted based on market supply and demand, to develop personalized, differentiated and tailor-made financial products and improve financial services to small and micro businesses and the agro-linked sector. Measures will be taken to improve the fundamental system of the capital market, manage well market entry and exit, and strengthen oversight throughout the entire transaction process. Technological innovation will be encouraged to promote high-quality development of the manufacturing industry.

The critical battle to forestall and defuse major financial risks will be deepened. Efforts are needed to strike a balance between stabilizing growth and preventing risks, and control credit risks in the priority areas, in the principle of seeking progress while ensuring stability. The risks from shadow banking will be handled properly to promote orderly restructuring and transformation of the asset management business of financial institutions. Efforts will be made to dispose of risks of high-risk financial institutions, improve their corporate governance, steadily implement the deposit insurance regime, and upgrade the market-based risk resolution mechanism in line with laws and regulations. Strong moves will be taken to rectify the financial order, by resolutely cracking down on illegal financial institutions and illicit financial activities. Risk monitoring and assessment will be strengthened to improve trouble-shooting. The PBC will formulate risk resolution plans, deliver good results in the Central Bank Rating of Financial Institutions, stress tests and stability assessments of financial institutions, and enrich the toolkit for risk prevention. The PBC will also actively participate in financial rule making on the global level, with a purpose to improve the global financial governance system. Efforts will be made to improve institutional arrangements of the capital market, and ensure stable functioning of the financial markets.

Reforms and full-dimensional opening-up will be promoted. Efforts will be made to create a level playing field, unleash the vitality of various market players, in particular private enterprises and entrepreneurs, improve the effectiveness of the incentive mechanism in the financial sector and reinforce positive incentives. In view of the new situation and characteristics, we will shift the focus of opening-up from flows of goods and factors of production to rules and related institutions. Efforts are needed to further advance the market-based interest rate and exchange rate reforms, and improve the mechanism of financial management. The reform plans for development financial institutions and policy banks will be carried out in a comprehensive manner. Regulatory weaknesses will be tackled, and detailed rules on regulation of financial holding companies and systematically important financial institutions will be unveiled in a timely manner. An integrated framework of management of financial market infrastructures will be set up and improved to ensure overall stability and safe and efficient functioning of the financial markets. Efforts will be made to relax market access, fully implement the management mechanism of pre-establishment national treatment and a negative list, to protect the legitimate rights and interests of foreign investors in particular their intellectual property rights, and to allow 100 percent foreign-ownership in more business areas. Announced initiatives of financial opening-up will be implemented sooner rather than later. Efforts are needed to promote cooperation in the Belt and Road Initiative, mobilize enterprises to participate in this initiative and effectively manage various risks. Trade and investment liberalization and facilitation will also be promoted.

Special Topic 1 Taking Solid Actions in the Critical Battle Against Major Financial Risks

Preventing and defusing major risks is the first and the foremost among the three critical battles for building a moderately prosperous society in all respects. General Secretary Xi Jinping has pointed out that since financial risk represents one of the most prominent major risks at present, preventing and defusing major financial risks is the top priority for the current financial sector undertakings. In line with the overall arrangements and requirements of the CPC Central Committee, relevant departments actively promoted structural deleveraging, addressed risks in key areas in a well-targeted manner, integrated the work in preventing financial risks with serving the real economy and deepening financial reforms in light of changes of the economic and financial situation, properly managed the intensity and pace of policies, strengthened preemptive adjustments and fine-tunings and management of expectations, all of which yielded positive results.

I. Overall Plan of the Critical Battle

In line with the decisions and arrangements made by the CPC Central Committee and the State Council, the PBC focused on the following campaigns to fight the critical battle against major financial risks in the basic principles of "maintaining overall stability, proceeding in a coordinated manner, adopting differentiated policies, and defusing risks in a targeted and calibrated way". First, efforts should be made to effectively stabilize the macro leverage ratio and contain credit risks in key areas. Second, the risks of shadow banking should be properly handled. Third, the risks of various high-risk financial institutions would be disposed of in an orderly way. Fourth, measures should be taken to comprehensively rectify financial order. Fifth, actions are to be taken to deepen reform and opening-up of the financial sector, strengthen management of expectations and guidance of public opinions, and to effectively guard against abnormal fluctuations in the financial market and external shocks. In terms of the timeline, the action plan was made in 2018 while implementing various measures at the same time, which got off to a good start. The year 2019 witnessed comprehensive and in-depth progress in the deployment of various tasks. The year of 2020, as the last year of the campaign, will wrap up the work in addressing the symptoms of risks and shift the focus to the root causes, thus finishing the preset tasks. In the meantime, in response to the changes of the macro circumstances and the external environment, measures will be taken to strengthen preemptive adjustments and fine-tunings of policies while bearing in mind the general principles and paying more attention to ensuring that the macroeconomic policy is neither too tight nor too loose.

II. The Critical Battle Got Off to a Good Start

Since 2018, the financial system has earnestly followed the overall arrangements and concrete measures as set forth by the CPC Central Committee and the State Council, and delivered various tasks to win the critical battle, which yielded good results.

1. Effectively Stabilizing the Macro Leverage Ratio

First, at the macro level, monetary supply was under proper management. As of end-2018, outstanding M_2 grew by 8.1 percent y-o-y and the total social financing grew by 9.8 percent y-o-y, basically in line with the growth rate of nominal GDP. Second, the PBC encouraged enterprises to reduce leverage. Required reserve ratio of 17 commercial banks was lowered, freeing RMB 500 billion in support of market-based and law-compliant debt-for-equity swaps. As of end-2018, agreements were reached regarding over RMB 2 trillion of debt-for-equity swaps and over RMB 600 billion was delivered. Third, the excessive growth of leverage in the household sector was contained. Commercial banks rationally controlled the growth of personal mortgage loans. As of end-2018, outstanding personal mortgage loans posted RMB 25.8 trillion, up 17.8 percent y-o-y and a deceleration of 4.4 percentage points y-o-y. Fourth, active efforts were made to resolve the implicit debts of local governments. Resolute measures were taken to curb the growth of implicit debts, properly address the stock of implicit debts, and actively guard against and defuse the risks of implicit debts of local governments. In general, the effect of the various policy measures gradually played out. At end-2018, China's macro leverage ratio registered 249.4 percent, down 1.5 percentage points from end-2017. Therefore, the rapid growth momentum of the macro leverage ratio was initially contained.

2. Improving Financial Services That Support the Real Economy

First, efforts were made to create an appropriate monetary and financial environment. In 2018, short- and medium-term liquidity of RMB 4 trillion was injected thanks to cut in the reserve requirement ratio on four occasions and the increased size of the Medium-term Lending Facility (MLF). RMB 1.35 trillion of MLF was swapped in cumulative terms, and most of the fund was pumped to shoring up loans to the private sector, small and micro businesses (SMB) and start-ups. By end-2018, outstanding loans to small and micro businesses reached RMB 9.36 trillion, up 21.79 percent y-o-y; the average interest rate on loans to small and micro businesses was 6.16 percent, declining for five consecutive months and down 0.39 percentage point in cumulative terms. Second, financial support was increased to privately-owned, small and micro businesses. Central bank lending and central bank discount in support of small businesses and the agro-linked sector increased by RMB 400 billion, and the interest rate of loans to small businesses was cut by 0.5 percentage point. Targeted

Medium-term Lending Facility (TMLF) and the bond financing supporting tools for private enterprises were created. Since the inception of the bond financing tools that support private enterprises till the end of 2018, RMB 6.71 billion of credit risk release certificates and credit protection instruments were launched in the national bond market, which supported 41 private enterprises to issue 58 corporate credit bonds worth RMB 24.74 billion. At the same time, research was underway on establishing private enterprise equity financing instruments, and on providing private enterprises with phased equity financing support in a market-based and law-compliant way. The instruments will be launched after the plan is approved. The scope of collaterals accepted by the central bank was appropriately expanded, and central bank lending with pledged credit assets and internal (corporate) rating were promoted. Across the country, 90 financial institutions with legal person status pledged qualified SMB loans as rated by the central bank and acquired RMB 15.97 billion of central bank lending. The above measures guided market expectations and restored enterprises' confidence in accessing financing. Financing costs of privately-owned enterprises and SMBs have generally declined.

3. Resolving of High-risk Financial Institutions in a Steady and Orderly Manner

Priority was given to the disposal of risks of financial institutions with systemic influence whose risks have been exposed, with importance attached to preventing systemic risks and moral hazards on the premise of compliance with laws and regulations. On February 23, 2018, relevant departments took over the Anbang Group in accordance with the law. At present, the takeover has achieved preliminary results. First, comprehensive measures were taken to properly deal with concentrated surrender of insurance policies and the related payment risks. Second, divestiture of overseas assets and non-core financial licenses that are less related to the main insurance businesses has been undertaken. Over RMB 1 trillion worth of various assets has been or is being disposed of. Third, measures were taken to promote business transformation and continue reducing the size and proportion of short- and medium-term financial products. Fourth, efforts were made to complete liquidation and verification of assets, and promote corporate shake-up and introduction of strategic investors. The Dajia Insurance Group was set up to receive the transfer of equity, assets and liabilities from some of Anbang Group's subsidiaries in compliance with laws, and active efforts were made to introduce qualified strategic investors.

Prudent and decisive measures were taken to deal with the risks of the Baoshang Bank and prevent them from worsening and spreading. Given the serious credit risks of Baoshang Bank, the PBC and CBIRC resolutely took over Baoshang Bank on May 24, 2019, in order to protect the legitimate rights and interests of depositors and other customers. With the joint efforts of all parties, the takeover went smoothly and Baoshang Bank continued its normal operation, without mass events such as a bank run. The first phase of the acquisition and transfer of large-value claims was completed ahead of schedule, and subsequent work is underway in an orderly manner. In general, the decisive implementation of the takeover has played a timely role in "stopping bleeding" and prevented the risk of Baoshang Bank from further worsening. Measures such as the provision of fund from the deposit insurance fund, liquidity support from the PBC, and disposal of risks by acquisition of large-value claims have proven to be a rather proper approach, which maximized the protection of legitimate rights and interests of customers, avoiding the risks of customer runs from spreading to other counterparts, and broke implicit guarantee in line with laws and regulations and reversed radical behaviors of some institutions, thus resulting in further strengthening of market discipline. In the meantime, the timely and appropriate provision of liquidity by the PBC stabilized market confidence in a timely fashion, effectively contained risks of the Baoshang Bank to spread to other small- and medium-sized financial institutions, and safeguarded the bottom line of preventing systemic risks.

4. Vigorously Rectifying Financial Order

First, solid progress was made in the special campaign against Internet finance risks. The number of online lending platforms decreased from 5 000 to 1 490, and all the 173 platforms of virtual currency trading and token issuance and financing exited the market without triggering risks. Second, the special campaign of rectifying the non-bank payment service market was concluded, whereby the market order was rectified. Stringent supervision over license-holding institutions was put in place, the NetsUnion Clearing Corporation was established, "direct connection" with banks was successfully cut, and customers' reserve fund was put under centralized depository. Crack-down on unlicensed payment businesses continued. By June 2019, 389 unlicensed institutions had been cleaned up and disposed of, 69 of which had been handed over to public security authorities and industrial and commercial administration. Third, resolute crack-down on illegal fund-raising has continued where major and significant cases were investigated in a timely manner. As of end-April 2019, a total of 282 Internet asset management institutions had been screened, 202 of which had been wiped out, 47 of which went out of business and had been included in the list of abnormal operations and handed over to the market regulatory offices with proposal to revoke their business licenses, 31 of which had been handed over to the public security department and the Working Mechanism on Illegal Fund-raising to deal with their illegal fund-raising activities and to be outlawed. Fourth, steady efforts were underway in rectification of various exchanges. The momentum of violating laws and regulations, disorderly expansion and risk proliferation was effectively contained, where market order improved notably and the supervision system over exchanges gradually improved.

5. Guarding against Risks of Abnormal Fluctuations in the Financial Markets and External Shocks

Bond defaults of private enterprises were handled in an orderly manner and implicit guarantee on payment in bond market was gradually reversed. Oversight of the bond market was strengthened and market-based disposal mechanism for bond defaults was improved. Risks in stock market were addressed in an active and prudent manner. Steady progress has been achieved in defusing risks in stock pledging with promulgation of the *Notice on Stock Pledged Repo Transaction Issues*. Stock of risks was defused through establishing special funds, special asset management planning, issuing bail-out debts, and other market-based approaches. Efforts were intensified to screen and dispose risks of private equity funds, and to crack down on illegal off-market financing activities. The foreign-exchange risk reserve requirement was adjusted in a timely manner, the countercyclical factor was reintroduced when appropriate, and measures were taken to regulate liquidity of off-shore RMB, which helped to effectively cope with a few major shocks of cross-border capital flows and maintain the RMB exchange rate basically stable at a reasonable and equilibrium level.

6. Improving the Financial Regulatory System

The *Guidelines on Regulating Asset Management Business of Financial Institutions* and its supporting rules for implementation were promulgated in a bid to rectify the chaos in the financial market, the arbitrage space and bubbles of the asset management business and the interbank business of financial institutions were squeezed, and the disorderly growth of shadow banking was put under control. The *Guidelines on Enhancing Regulation on Non-financial Enterprises' Investment in Financial Institutions* was promulgated so as to prevent risk contagion between the real economy and the financial sector. The *Guidelines on Improving Regulation of Systemically Important Financial Institutions* was released to prevent the "too big to fail" risks of financial institutions. Research was under way to develop tentative measures for the supervision of financial holding companies, along with pilot programs of regulatory simulation.

7. Positive Results Achieved in Opening Up the Financial Sector

Over the past years, China has accelerated the pace of opening-up of its financial sector. Since the start of 2018, the PBC, together with other relevant departments, has adopted opening-up measures at faster pace and achieved positive results.

The banking, securities and insurance industries launched a new round of opening-up measures. Restrictions on foreign ownership in banks and financial asset management companies were removed. Overseas financial institutions are encouraged to be involved in setting up or investing in wealth management subsidiaries of commercial banks. Foreign asset management institutions were allowed to co-establish foreign-controlled wealth management companies jointly with subsidiaries of Chinese banks or insurance companies. No restrictions shall be imposed on the proportion of foreign ownership in financial asset investment companies newly established by commercial banks. Overseas financial institutions were allowed to invest in and establish or hold shares in pension management companies, and overseas investors are encouraged to establish wholly owned or invest in currency brokerage companies.The upper limit was relaxed to 51 percent for foreign ownership in securities companies, fund management companies, futures companies and life insurance companies, with the limit of foreign ownership to be lifted as of 2020. The rule was cancelled which required domestic insurance companies to hold no less than 75 percent of the total shares of insurance asset management companies, and in the meantime foreign investors were allowed to hold more than 25 percent of the shares. Access preconditions for foreign insurance companies were relaxed and the requirement of minimum years of operation (30 years) was removed.

Business scope has been significantly expanded for foreign banks, separate restrictions on the business scope of joint venture securities companies are no longer in place, and foreign institutions are allowed to obtain Category A lead underwriting licenses in the interbank bond market. These measures help provide a level playing field for domestic and foreign players. The business scope of foreign insurance brokerage companies is now the same with that of domestic ones. Measures are taken to further facilitate investment by overseas institutional investors in the interbank bond market.

Restrictions have been constantly lifted on market access to credit information collection, rating, payment and other areas. Foreign institutions are allowed to undertake enterprise credit information collection and credit rating services in China, and can provide ratings to all kinds of bonds in both the interbank and exchange bond markets. Policies on how foreign bank card clearing institutions and non-bank payment institutions access the domestic market are clarified, and foreign entities are accorded national treatment.

Steady efforts have been underway in promoting two-way opening-up of the capital market. The bond market is further opened up, along with improved supportive systems of accounting, taxation and trading. Interconnection between domestic and foreign stock markets was deepened. RMB-dominated futures of crude oil for international investors were kicked off, and foreign entities were allowed to participate in commodity futures such as iron ore and PTA. Restrictions were lifted on southbound investment by foreign private equity under the Hong Kong Stock Connect program, thus granting national treatment to foreign private equity investors.

The measures to open up the financial sector were well received by the international community, and notable progress was made in foreign institutions gaining market access and expanding their operations in China. American Express acquired approval to set up a bank card clearing house named Express (Hangzhou), representing a significant step in the opening-up of China's bank card market. Standard & Poor's wholly-owned credit rating subsidiary was granted access to China's credit rating market. Allianz Group was making preparations to set up Allianz (China) Insurance Holding Company, which would become the first foreign-holding insurance company in China. The UBS Group increased its shareholding in the UBS Securities up to 51 percent, and the latter became the first foreign-holding securities company in China. Several major international indices incorporated related stocks and bonds of China.

III. Deepening and Intensifying the Critical Battle against Major Financial Risks

In general, thanks to over a year of centralized rectification efforts, the rapid accumulation of financial risks from the previous years has been gradually released, albeit at an elevated level. The exposed financial risks were put under orderly disposal, overall financial risks declined, and the financial markets operated smoothly. The RMB exchange rate remained basically stable at an adaptive and equilibrium level, the financial regulatory system further improved, and the bottom line of preventing systemic financial risks from occurring was secured.

Currently, there remain many uncertainties for China's economy and financial sector. On the global front, it is more likely that the world economic growth rate would peak and then decline. With aggravating unilateralism and trade protectionism at the global level, uncertainties have increased. On the domestic front, cyclical and structural challenges still exist, where financial risks are demonstrating certain new features in trends. First, risks in key areas remain at a high level. The implicit debt stock of local governments is large in size, the pressure of corporate credit bond default is huge, and risks of the real estate market may appear in some regions and may spread to financial institutions. Second, though the incremental risks of key institutions and various types of illegal financial activities have been brought under control, yet the stock risks remain prominent. Risks of certain financial holding groups and rural financial institutions may emerge. Risks of Internet finance, particularly online lending, still call for attention. The situation of illegal fund-raising remains complex. Third, the risk of abnormal fluctuations of the financial market cannot be ignored. Financial markets are highly sensitive to external shocks, the RMB exchange rate and foreign exchange reserves are under pressure, and the probability of cross-contagion of risks among financial markets might increase. Hence emphasis should be given to the following tasks.

First, a sound monetary policy shall be adhered to, while ensuring reasonably adequate liquidity. We will undertake countercyclical adjustments in a timely and appropriate manner, taking into full account changes in economic and financial conditions, adopt preemptive adjustments and fine-tunings, calibrate the pace and intensity of policies, and refrain from providing massive and indiscriminative liquidity. Structural deleveraging shall be undertaken in an orderly manner, with focus laid upon promoting deleveraging of state-owned enterprises, preventing the household leverage ratio from rising excessively, and resolutely containing the increase and reducing the stock of implicit debts of local governments in an orderly manner. We will continue promoting market-based and law-compliant debt-for-equity swaps, and guide commercial banks and related parties to make good use of the funds released from targeted cuts of reserve requirement ratios.

Second, better support shall be provided to the real economy. We will effectively improve the transmission mechanism of monetary policy, and connect the “last mile” through which financial resources flow to real economy, thus creating a virtuous cycle between the real economy and the financial system. We will optimize the policy framework, further improve financial services for private enterprises, small and micro businesses and other entities, and ease the difficulties to access affordable financing.

Third, risks of shadow banking shall be addressed in an orderly manner. We will continue striking a good balance between risk prevention and economic development, enhance regulatory coordination, manage well the intensity and pace of policies, and ensure orderly implementation of the new rules on the asset management business. Continued efforts are needed to strengthen guidance of expectations, stick to the basic principles of the new regulations on asset management, and guide financial institutions to formulate their rectification plans in a proper and orderly manner, thus ensuring the smooth transition between the old and the new businesses. We will accelerate the formulation of detailed supporting rules on asset management business, reducing regulatory discrepancies, in an effort to shore up regulatory weaknesses, and guide capital to flow into the real economy.

Fourth, we shall effectively handle all kinds of risks from high-risk financial institutions and hold financial institutions accountable for risk prevention. Efforts will be intensified to dispose of non-performing assets of financial institutions, continue to handle risks of key financial holding groups in an orderly manner, and defuse risks of small and medium-sized local financial institutions. We shall vigorously crack down on financial crimes and financial corruption, improve corporate governance of financial institutions, tighten supervision on shareholders, and prevent major shareholders from turning financial institutions into “cash machines”. Actions will be taken to strengthen internal control and compliance to prevent occurrence of “enemy within”, and in the meanwhile clarify specific requirements of due diligence and exemptions for financial practitioners.

Fifth, actions shall be taken to continue comprehensively cleaning up and rectifying financial order, and continue cracking down on illegal financial institutions and illicit financial activities. Efforts will be underway to develop all kinds of risk contingency plans, and promptly identify and deal with breakout of all kinds of unexpected risks. An uphill battle will be carried out to clean up and rectify local exchanges, improve the rules governing their access and supervision, and promote lawful operation of the surviving exchanges. We shall continue to vigorously crack down on noncompliant business operation of exchanges, promote mergers and closures, and resolutely shut down or cancel those violating laws and regulations or failing to make corrections, so as to effectively defuse the existing risks of exchanges.

Sixth, efforts shall be underway to guard against abnormal fluctuations in the financial markets. We shall closely monitor changes in the international economic and financial situation, improve financial policies, maintain the sound functioning of financial markets, keep the RMB exchange rate basically stable at an adaptive and equilibrium level, and take effective measures to prevent the risk of abnormal cross-border capital flows. We will strengthen real-time monitoring of the stock, bond and foreign exchange markets, prevent contagion of risks across markets, regions and countries, and prevent abnormal fluctuations and co-movements of financial markets. In the meanwhile, proactive initiatives shall be taken to manage expectations. The spokesman regime shall be established for the office of the Financial Stability and Development Committee. Efforts will be intensified to interpret major economic and financial policies and data in a timely and proactive manner, strengthen communication with the market, and promptly respond to issues that cause wide-ranging concerns. We shall do a good job in monitoring the public opinions regarding the financial markets while improving the response mechanism.

Seventh, the regulatory system shall be further improved. We shall promulgate tentative measures on the supervision and regulation of financial holding companies as soon as possible, and formulate detailed rules for the implementation of the *Guidelines on Improving Regulation of Systemically Important Financial Institutions*. Efforts will be made to facilitate legislation and amendment of *the Law of the People's Bank of China, Commercial Bank Law, Regulations on the Disposal of Illegal Fund-Raising, Interim Regulations for the Supervision and Management of Private Investment Funds, Regulations on Non-Deposit-Taking Lending Organizations, Interim Measures for the Administrtion of Credit Rating Industry, Regulations on Non-Bank Payment Institutions* etc., and to improve the regulatory regime for financial infrastructures. We will actively explore the use of deposit insurance as a platform to establish a market-based and law-compliant exit mechanism for financial institutions.

Eighth, pragmatic approaches shall be adopted to promote reform and opening-up. Reform and opening-up shall be intensified in the financial sector to ensure measures that have already been announced will be implemented. Greater attention shall be attached to the protection of property rights and intellectual property rights, to create a fair environment for market competition, and unleash the vitality of various types of market players, especially private businesses and entrepreneurs. The effectiveness of incentive mechanisms shall be improved in the financial sector where positive incentive mechanisms are to be enhanced, so as to create an environment that encourages responsibility bearing, tolerates failures, and promotes active initiatives.

Special Topic 2   Household Debt in China

The rising momentum of household debt in China slowed down in 2018, out of which, the rapid growth of residential mortgages was restrained to some extent, the growth rate of short-term consumption loans levelled off and then trended down after an abnormal surge in 2017, business loans experienced a modest recovery, and individual loans offered by Internet finance decelerated. Compared with peer countries, China's household debt risk is less prominent, and the housing credit policies are more prudent. However, household debt is unevenly distributed, as the leverage was higher in some regions and for some low-income families. For next step, consistent efforts should be made to monitor the dynamics of household debt from a macroprudential perspective, and avoid excessive growth of household debt.

I. Household Debt: Level and Structure

By the end of 2018, outstanding loans of China's household sector stood at RMB 47.9 trillion, representing a y-o-y increase of 18.2 percent, 3.2 percentage points lower than that in 2017. Household loans accounted for 35.1 percent of the total loans extended by depository institutions, 2.8 percentage points higher than that in 2017.

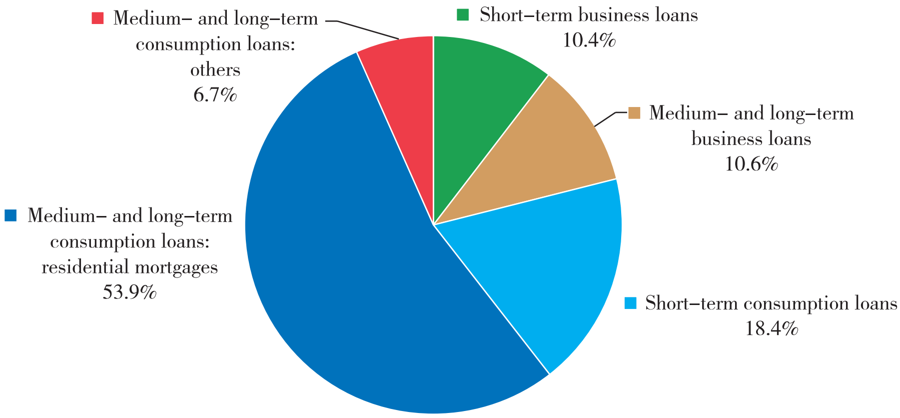
By loan type, consumption loans and business loans took up 78.9 percent and 21.1 percent of the outstanding household loans respectively by the end of 2018, and increased by 19.9 and 12.3 percent y-o-y. By maturity, short-term loans and medium- and long-term loans took up 29 percent and 71 percent of the outstanding household loans respectively, largely in line with that in the previous year (Table 1.1, Figure 1.14). The structure of the household debt in 2018 features the following characteristics:

Table 1.1   Outstanding Balance and Growth of Household Loans in 2018

Type	Outstanding balance (RMB 100 million)	Y-o-y growth (%)	Changes from the previous year (percentage points)
Consumption loans	378 012	19.9	–5.9
Of which: Short-term consumption loans	88 080	29.3	–8.6
Medium- and long-term consumption loans	289 931	17.3	–5.6
Of which: Residential mortgages	258 000	17.8	–4.4
Business loans	100 943	12.3	4.2
Of which: Short-term business loans	50 006	9.1	9.9
Medium- and long-term business loans	50 936	15.8	–3.3
Total	478 954	18.2	–3.2

Source: The PBC.

Figure 1.14　Distribution of Household Loans in 2018



Source: The PBC.

1. The Growth Rate of Residential Mortgages Fell for Two Consecutive Years.

By the end of 2018, outstanding residential mortgages stood at RMB 25.8 trillion, accounting for 53.9 percent of the total household loans. The y-o-y growth of residential mortgages was 17.8 percent in 2018, a fall for two consecutive years, and a lower rate than that of the total household loans for the first time since 2014 by 0.4 percentage point.

Figure 1.15　Comparison between the Growth of Residential Mortgages and Housing Price (2011-2018)

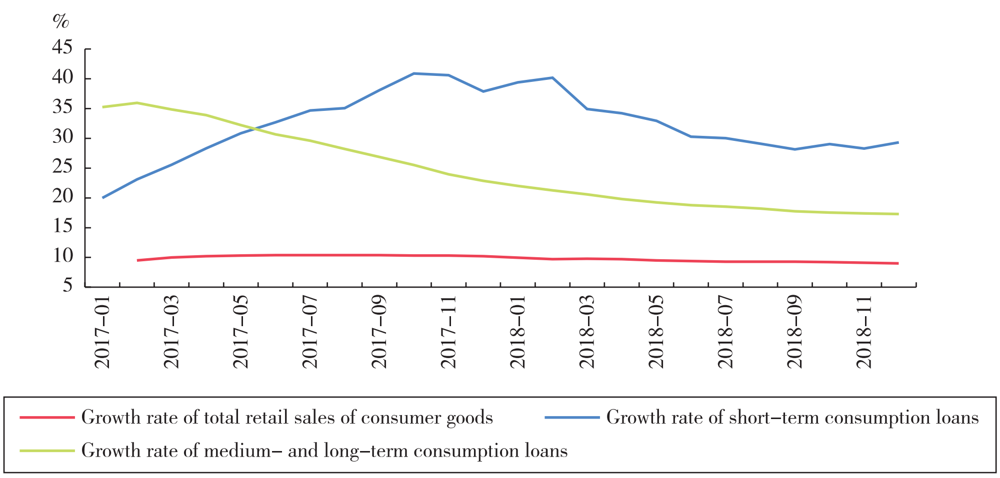
Source: The PBC, and Wind.

The declining growth rate of residential mortgages is correlated with the deceleration of housing prices (Figure 1.18). In 2018, the real estate market gradually returned to a rational growth in the context of upgrading regulatory measures. In terms of the average level in the country, housing prices continued the slowing growth trajectory of 2017, with a 5.1 percent y-o-y growth in 2018, 2.1 percentage points lower than that in the previous year. Correspondingly, the y-o-y growth of residential mortgages decreased by 15.9 percentage points and 4.4 percentage points in 2017 and 2018 respectively, which was largely consistent with the growth of housing prices. Affected by the above changes, the growth rate of total household loans has witnessed slight decreases for two consecutive years.

2. The Growth of Short-term Consumption Loans Fell Modestly.

In 2018, the y-o-y growth of short-term consumption loans trended down, though still within a relatively high range. From January to October 2017, the y-o-y growth of short-term consumption loans surged from 19.9 percent to 40.9 percent, showing a diverging trend with that of medium- and long-term consumption loans, and also a marking deviation from the growth of total retail sales of consumer goods. From January to December 2018, the y-o-y growth of short-term consumption loans dropped somewhat, but still ran in the relatively high growth range from 28.1 percent to 40.1 percent by 1 to 13 percentage points higher than the average rate in recent five years, or 10 to 15 percentage points higher than that of medium- and long-term consumption loans (Figure 1.16).

Figure 1.16 The Growth Rates of Consumption Loans and Total Retail Sales of Consumer Goods (2017-2018)



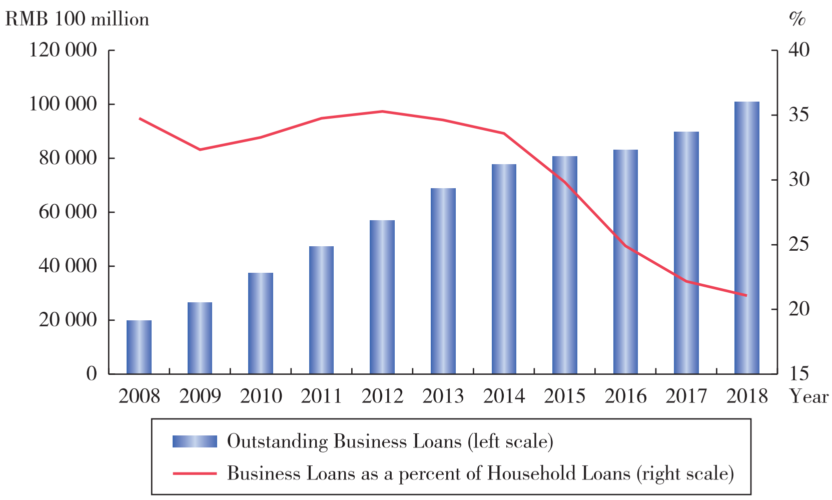
Source: The PBC, and NBS.

The modest decline in growth rate of short-term consumption loans may be attributed primarily to these factors: first, the considerable increase of household spending on housing in recent years has weighed on household consumption. The growth rate of total retail sales of consumer goods was 9.0 percent in 2018, down by 1.2 percentage points y-o-y. Second, in August 2017, in response to the use of consumer loans to circumvent LTV requirements by some home buyers, the financial regulator asked commercial banks to apply stricter verification measures to their consumer loan products, as part of the broader efforts to crack down on the illegal use of consumer loans in the property market. In this context, the y-o-y growth rate of short-term consumption loans has gradually dropped from the highest 40.9 percent in October 2017.

3. Business Loans Experienced A Pickup in the Last Two Years.

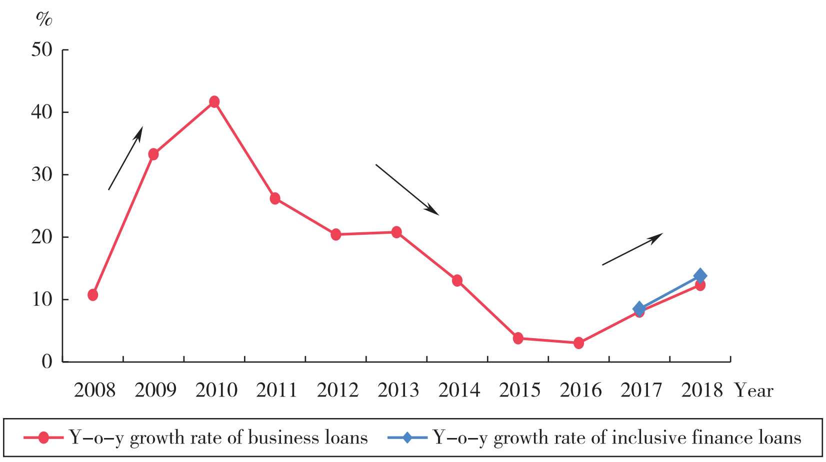
Business loans of the household sector are the loans granted by financial institutions to urban self-employed business-owners, farmers and individuals for the purpose of running business or investment. Its growth features three distinct phases between 2008 and 2018 (Figure 1.17, Figure1.18). From 2008 to 2010, business loans enjoyed a high-speed growth rising from 10.7 percent to 41.7 percent. Then from 2011 to 2016, it experienced an overall slip. Specifically, the average growth rate, though declining, remained at a relatively high level of 20 percent between 2011 and 2013; and till the end of 2016, the growth rate further declined to 3.0 percent, with its share in total household loans shrinking from 33.3 percent at end-2010 to 24.9 percent at end-2016. From 2017 onward, the growth of business loans has begun to pick up.

Figure 1.17 Changes in Business Loans (2008-2018)



Source: The PBC.

Figure 1.18 The Growth Rate of Business Loans (2008-2018)



Source: The PBC.

The recovery of household business loans has reflected the effects of policies in inclusive finance. Relevant departments have made various efforts to increase input of financial resources in support of financial inclusion, including the optimization of credit portfolios and tax cuts, under the *Plan for Advancing the Development of Inclusive Finance (2016-2020)* issued by the State Council in 2016. In September 2017, the PBC announced the targeted reserve requirement ratio (RRR) cuts on inclusive finance, covering business loans borrowed by self-employed business-owners[①], micro and small businesses and farmers, guaranteed loans for start-ups, and other eligible types of loans granted to individuals and households who are financially underserved. By the end of 2018, outstanding inclusive finance loans[②] reached RMB 13.39 trillion, up 13.8 percent y-o-y. As a result, the growth rate of business loans has begun to pick up since 2017 and reached 12.3 percent at the end of 2018.

4. Personal Internet Finance Loans Decelerated.

Besides above-mentioned household loans, other sources of funding for households include housing provident fund loans, policy loans, trust loans, lending via Internet finance platforms, private lending and pawnshops, etc. In particular, lending via Internet finance has mushroomed in recent years and played an active role in extending convenient financial services to those households who have been

① The targeted cuts covered business loans of self-employed business-owners with a credit line of no more than RMB 5 million. And then from 2019 onward, this limit has been adjusted up to RMB 10 million.

② Inclusive finance loans include micro and small enterprise loans of inclusive finance standards, farmer s' business loans, loans to the registered poverty-stricken individuals, guaranteed loans for start-ups and student loans.

overlooked by traditional financial service providers. In the meantime, however, there are cases where borrowers take advantage of the poor coverage of credit information in the Internet finance sector and take out loans more than they are able to pay back, resulting in arrears.

The recent rectification of misconducts in the Internet finance lending sector has seen the number of online lenders shrinking and risks associated with online lending being restrained to some extent. By the end of 2018, the outstanding balance of personal Internet finance loans[①] dropped by 22.7 percent y-o-y than that of 2017, marking a 63.6 percentage points lower growth rate.

II. Risk Analysis of Household Debt

China's household debt[②] burden in 2018 is comparable with international average. Moreover, collaterals for residential mortgages remain adequate and default rates low. Household debt risk is overall under control, though attention should be paid to the rapid rate at which debt is growing, the high concentration rate as a result of uneven distribution, and key vulnerabilities in selected regions and low-income families.

1. Household Leverage Ratio Is Comparable with International Average, While Faster Growth Is Indicated When Compared with Other Major Economies.

By the end of 2018, China's household leverage ratio came at 60.4 percent[③]. Comparing with other economies, China's household leverage ratio is comparable with international average, lower than the average level of advanced economies, and higher than the average level of emerging market economies (Figure 1.19).

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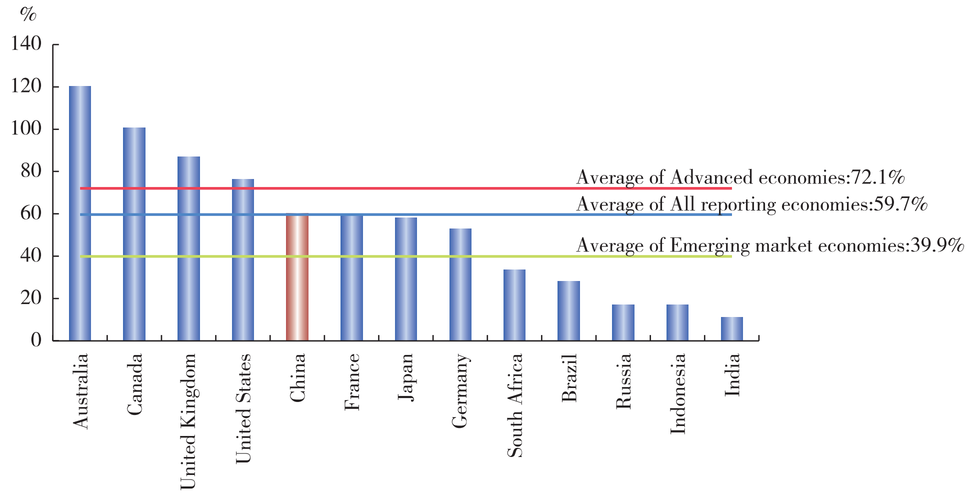
① Loans by the definition of personal Internet finance loans include: loans granted via online lending platforms, online small loan companies and Internet consumer finance companies, and sales on credit.

② Household debt, apart from household loans on the Sources and Uses of Funds of Depository Financial Institutions sheet, includes also housing provident fund loans, policy loans and trust loans.

③ By PBC staff calculation. China's household leverage ratio in 2018 is 52.6 percent according to the statistics of BIS.

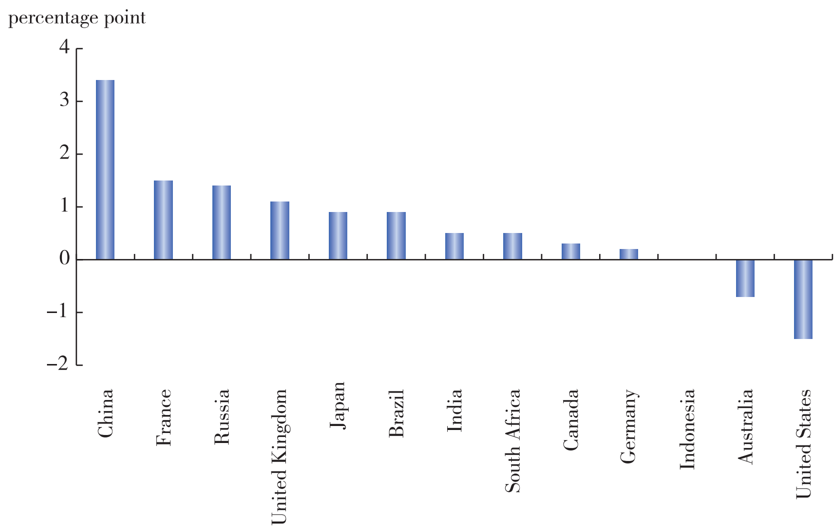
Figure 1.19 Household Leverage Ratios in Selected Economies at end-2018



Source: Household leverage ratio of China is calculated by the PBC staff, while those of other countries are from the BIS.

By y-o-y changes, China's household leverage ratio has risen by a considerable margin, a 3.4 percentage points increase from that of end-2017. In the same period, the household leverage ratios of the U.S. and Australia declined by 1.5 percentage points and 0.7 percentage point respectively, and those of other selected economies such as Japan and the UK, though showing varying degrees of increase, invariably rose by a smaller margin than that of China (Figure 1.20).

Figure 1.20 Changes of Household Leverage Ratio in Selected Economies in 2018



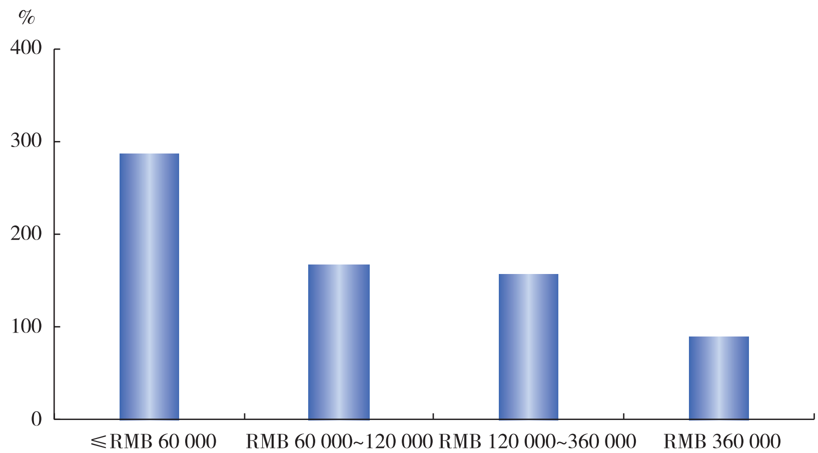
Source: Household leverage ratio of China is calculated by the PBC staff, while those of other countries are from the BIS.

2. Household Debt Measured by Income Has maintained A Rapid Growth, with Debt Burdens Heavily Felt in Low-income Families.

Debt to income ratio (Household debt/disposable income) is the measure of debt by disposable income. In 2018, the household disposable income was RMB 54.4 trillion[①], up 8.7 percent y-o-y, 7.5 percentage points lower than the growth rate of household debt. The debt to income ratio was 99.9 percent in 2018, up 6.5 percentage points y-o-y, out of which residential mortgages to income ratio was 47.4 percent in 2018, up 3.7 percentage points y-o-y.

Income affects the ability to repay loans, and debt-servicing capability of those low-income families merits our special attention. According to the China Family Panel Studiesconducted by the Peking University in 2016, debt burdens on low-income families were generally heavier than those on high-income families. For indebted families, the average debt to income ratio of families with an annual income less than RMB 60 000 was 285.9 percent, while that of families with an annual income more than RMB 360 000 was 89.0 percent (Figure 1.21). Besides, out of the families earning less than RMB 60 000 annually, 0.8 percent of them owed debts larger than RMB 500 000, which means that it will take nearly a decade for them to repay debts with all their income on condition that there are no changes to their income levels. Low-income families, with limited financial assets and rigid spending on essentials, are easily vulnerable to worsening financial conditions in face of unscheduled spending.

Figure 1.21 Debt to Income Ratio of Families by Income



Source: Peking University China Family Panel Studies 2016.

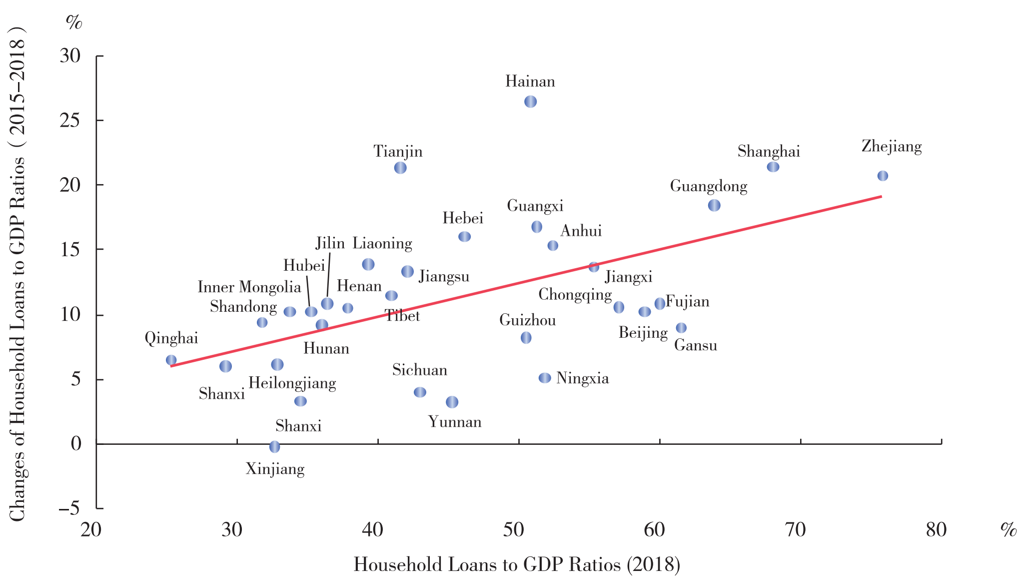
① This is an estimated number, based on the household disposable income in 2016 disclosed by the National Bureau of Statistics, assuming that the growth rate equaled to that of per-capita disposable income.

3. Household Debt Risk Was More Prominent in the Coastal Area of Southeast China.

Household debt was unevenly distributed among provinces. In 2018, provinces with a household leverage ratio above national average include Zhejiang (83.7 percent), Shanghai (83.3 percent), Beijing (72.4 percent), Guangdong (70.6 percent), Gansu (70.1 percent), Chongqing (68.6 percent), Fujian (65.8 percent) and Jiangxi (63.1 percent). The difference was as large as 50 percentage points between the highest Zhejiang province and the lowest Shanxi province. Among those provinces, the household debt to income ratios of Zhejiang, Shanghai, Beijing, Guangdong, Fujian and Chongqing were also above national average, indicating heavy household indebtedness.

From 2015 to 2018, the ratios of household loans to GDP picked up in all provinces except for Xinjiang. Among others, Hainan, Shanghai, Tianjin, Zhejiang and Guangdong witnessed a faster growth, up by 26.4 percentage points, 21.5 percentage points, 21.4 percentage points, 20.8 percentage points and 18.4 percentage points in the past four years respectively. Measured by both the level and growth rate, Zhejiang, Shanghai and Guangdong would be rated the highest both in terms of absolute level of household loans to GDP and of rate at which debt has been accumulated: their combined outstanding household loans and four-year increase margins took up more than a quarter of those of the whole country.

Figure 1.22 Changes of Household Loans to GDP Ratios in Mainland China (2015-2018)



Source: Calculation by staff of The Financial Stability Bureau of PBC.

4. Default Risk of Household Debt Was Relatively Low.

In 2018, authorities continued to put in place a prudential housing credit policy. Compared with other highly-leveraged countries, the LTV requirements in China are more stringent, and the requirements on debt service to income ratio and maximum amortization period are largely in line with international practices, which indicate relatively high resilience of the household sector.

In 2018, the default rate of household loans in China, especially that of the residential mortgages, remained at a relatively low level. By the end of 2018, outstanding NPLs of household loans posted RMB 710.3 billion, and the NPL ratio was 1.5 percent, 0.5 percentage point lower than that of total loans. The NPL ratios of residential mortgages, auto loans, and credit card loans stay unchanged from last year at 0.3 percent, 0.7 percent and 1.6 percent respectively.

III.Policy Recommendations

For next step, it is important to continue to closely monitor the riskiness in the household debt from a macroprudential perspective, and take multiple measures to prevent the household debt level from rising too fast in some regions and deal with the heavy debt burdens on some low-income families. First, authorities should continue to stick to the policy stance of “houses are for people to live in rather than speculate on”, and to improve the differentiated housing credit policies calibrated to local conditions, in an effort to contain speculative housing purchases. Meanwhile, increased financial support and regulatory guidance should be given to the rental market, to meet housing needs through both home purchases and rentals. Second, financial institutions should be not only encouraged to innovate on consumer finance modes and expand service areas, but also urged to strengthen their practices in verifying the real purpose of consumer loans and risk control on consumer credit products. Third, inclusive finance policies should be continually implemented to guide and encourage financial service providers to reach out to the underserved. Efforts should be made to enhance financial literacy of financial consumers, to launch risk warnings and publicity campaigns, and to cultivate sound financial discipline and practice among consumers, especially to prevent low-income households from being excessively indebted. Fourth, the buildup of a comprehensive credit information system should be accelerated through active use of big data analysis, in order to provide a reliable database for financial service providers and financial regulators. Fifth, relevant authorities should monitor and analyze the riskiness of household debt by its regional and tiered distribution, in light of household assets and income, so as to present a comprehensive picture of household indebtedness in China.

Special Topic 3 The Effect of Market-based Debt-to-equity Swaps and Consideration of Next Steps

The market-based debt-to-equity swap mechanism for high-quality enterprises who encounter temporary difficulties but remain promising is an important measure to simultaneously realize the goals of stabilizing growth, promoting reforms, making structural adjustments and preventing risks. This round of debt-to-equity swaps strictly follows the principle of being market-based and law-compliant. Relevant market entities select target enterprises, transfer their claims, determine swap prices, raise funds and sell corresponding shares based on market principles. The debt-to-equity swaps, through the introduction of new shareholders, could improve the enterprises' original governance structure and achieve a "win-win" outcome between financial institutions and enterprises. Since the release of the *Opinions on Actively and Prudently Lowering Leverage of Enterprises* in 2016, relevant authorities have actively and steadily promoted the market-based debt-to-equity swaps and achieved good progress.

I. The Market-based Debt-to-equity Swaps Showed A Good Momentum of Increasing Quantity and Quality Following the Targeted RRR Cut

On July 5, 2018, the PBC released liquidity of about RMB 500 billion through targeted RRR cut. Commercial banks took active actions to push forward the market-based debt-to-equity swaps. The debt-to-equity swaps achieved remarkable outcomes with expanding scale, higher quality and widening coverage.

The scale of investment in debt-to-equity swaps has steadily expanded. As of the end of the second quarter in 2019, this investment had amounted to RMB 1.0015 trillion, of which RMB 600 billion was newly-added following the targeted RRR cut. The investment of 17 commercial banks covered by the targeted RRR cut reached RMB 504.2 billion, involving 249 enterprises. Out of this amount, RMB 306 billion was invested after the targeted cut, which was three times of that in the same period of last year; and 165 more enterprises joined, which was 3.35 times of the number of participating enterprises in the same period of last year.

The post-investment management of debt-to-equity enterprises has been effective. After the targeted RRR cut, the awareness of implementing institutions to participate in the corporate governance of debt-to-equity swap enterprises has been enhanced. Among the 298 new investment projects of the 17 commercial banks, 185 projects involve the appointment of directors, supervisors and senior executives to the enterprises to participate in their corporate governance, and this appointment rate, which is 62 percent, is significantly higher than the previous rate of 38 percent before the targeted RRR cut. As shown by the implemented swap projects, the implementing institutions have played a significant role in helping enterprises reduce leverage, prevent risks and advance transformation by participating in their corporate governance. The liabilities/assets ratio of the participating enterprises fell by an average of 15 percentage points, with the ratio of 44 enterprisesfalling by more than 20 percentage points, and of 22 enterprises by more than 30 percentage points.

The number of debt-to-equity swaps of manufacturing and private enterprises has grown. After the targeted RRR cut, commercial banks took the market-based debt-to-equity swaps as the access point and intensified the efforts to address medium- and long-term financing difficulties of high-quality manufacturing and private enterprises. As of the end of the second quarter in 2019, 17 commercial banks had carried out market-oriented debt-to-equity swaps towards 83 manufacturing enterprises, of which 54 enterprises, or 65 percent, were added after the targeted RRR cut; and they have also carried out swaps towards 31 private enterprises, with 29 enterprises as new participants after the targeted RRR cut, accounting for 94 percent of the total number. Through the market-based debt-to-equity swaps, enterprises' financing structures have been optimized, and their market competitiveness and growth momentum have been further enhanced.

The coverage of debt-to-equity swaps has been expanded in an orderly manner. By region, new investment in the debt-to-equity swaps in the west region after the cut has amounted to RMB 63.9 billion, 1.8 times of that before the cut; 45 enterprises have participated, 2.8 times of that before the cut. By industry, the number of industries involved has increased from 9 to 11, with the two newly involved in the high-tech industry, namely the technology services and information technology services. By size of the enterprises, investment in the debt-to-equity swaps for small enterprises has increased by RMB 6 billion, 7.5 times than that before the RRR cut. A total of 15 small enterprises have been involved, 15 times of that before the RRR cut.

II. Challenges Remain for the Market-based Debt-to-equity Swaps

The market-oriented pricing mechanism is insufficient. The smooth implementation of market-based debt-to-equity swaps requires an appropriate pricing mechanism. The key point is to introduce a truly market-based approach in determining prices for transfer of creditors' claims and acquisition of shares, and respect the market fair value in valuation and pricing. At present, the pricing of SOEs' assets is based on evaluation results. Although relevant policies allow discounts in the pricing of SOEs' assets after being listed in equity exchanges, in practice, SOE decision-makers tend to act with extra caution as they often worry that discounts may be regarded as inducing losses to state-owned assets. The failure of pricing enterprises' equities and banks' corresponding claims in line with the market fair value has resulted in a low expected return on the debt-to-equity swaps and impaired incentives on the part of market participants.

Corporate governance needs to be further improved. Corporate governance remains underdeveloped in China. The capital replenishing mechanism, self-discipline in balance sheet management and external constraint for enterprises need to be improved, and the incentive to deleverage is less internally motivated. Insufficient corporate governance not only affects the health of the enterprises themselves, but also makes it difficult for investors to have positive expectations. At the same time, it is difficult to guarantee the rights of the shareholders, who hold shares because of the swaps, to participate in corporate governance, which greatly affects the incentives of social funds to participate in the market-based debt-equity swaps.

The mobilization of available funds to engage in equity investment remains challenging. Most investors in China are used to investing in debts. These investors with weak risk appetite place a higher value on the safety of their funds and a stable rate of yields. Thus, the investor base of equity investment remains small and the supply of long-term equity funds is insufficient, resulting in difficulties in mobilizing social funds. The overall scale of China's private equity funds is small, with a lack of large institutional investors and stable funding sources. The private equity products, whose average scale is less than RMB 500 million, are unable to meet the funding demand of debt-to-equity swaps, which usually exceeds RMB 5 billion on average, and could hardly play a role in improving the corporate governance of the enterprises.

The policy framework of debt-to-equity swaps needs to be improved. Gaps remain in terms of the availability of supplementary policies and policy consistency. The closed loop of "fund-raising, investment, management and exit" has not taken shape, with the centralized trading market for converted equities and the exit channels still lacking or needing to be further improved. The management and evalution mechanism for debt-to-equity swap implementing institutions are not completely consistent with the characteristics of equity investment, which restricts their capacities in conducting business. Tax is levied throughout the process of fund-raising, investment, return distribution, payment of management fees, excess return sharing and investment exit in the swaps, and there even exist issues of repeated taxation in some cases, resulting in heavy tax burdens.

III. Further Promoting the Effectiveness of Market-based Debt-to-equity Swaps

Going forward, efforts are needed to push forward with the market-based debt-to-equity swaps, with an aim to make further improvements to its quantity, coverage and quality, and to facilitate its role in stabilizing economic growth, promoting reforms, making structural adjustments and mitigating risks.

First, further efforts should be made to push forward with the market-based debt-to-equity swaps of high-quality enterprises and private enterprises, so as to stabilize the economic growth and investment. Relevant authorities should continue to encourage the market-based debt-to-equity swaps of high-quality enterprises with high leverage or high-quality subsidiaries and businesseswithin corporate groups. The principle of due diligence and exemption of liabilities should be fully adopted to continue to guide the implementing institutions to select qualified private enterprises to conduct market-based debt-to-equity swaps.

Second, efficiency of the trading and pricing of assets related to market-based swaps will be improved. Eligible exchanges should be allowed to conduct centralized trading of assets related to the swaps in accordance with laws and regulations, so as to improve the liquidity of converted shares and unblock the exit channels. A reasonable pricing mechanism for debt-to-equity swaps should be established, the tiered approval mechanism for state-owned asset transactions should be strictly implemented, and the enterprises should be allowed to have greater freedom in decision-making.

Third, measures should be taken to enhance corporate governance and promote the establishment of a modern enterprise system. Market-oriented debt-to-equity swaps should be appropriately integrated with the establishment of a modern enterprise system and the reform of SOEs to introduce mixed ownership. The implementing institutions will be guided to appoint directors, supervisors and senior management to enterprises in accordance with relevant laws so as to allow appointees to practically participate in their corporate governance, actively promote the transformation and upgrading of enterprises, and push for industrial integration.

Fourth, efforts would be made to actively attract social funds to participate in market-based debt-to-equity swaps. Equity structure of enterprises should be optimized and the rights and interests of social funds should be protected equally by laws. The private equity investment funds and private equity management products should fully play their roles in the market-based debt-to-equity swaps. Financial asset investment companies should be supported to launch asset management products and insurance funds be allowed to invest in them.

Fifth, the resources of implementing institutions should be enhanced. Commercial banks that have established implementing institutions should be encouraged to further mobilize bank-wide resources to support market-based debt-to-equity swaps, and to establish a performance evaluation and management system that is consistent with the characteristics of equity investments. Qualified joint-stock commercial banks should be encouraged to establish financial asset investment companies individually or jointly.

Sixth, the private placement mechanism should be further improved. Enterprises with good assets and heavy financial burdens should be allowed to use all the funds got from private placement to make up for the liquidity gap or pay their own debts. The requirement that the pricing benchmark date for private placement should be the first day of the issuing period could also be properly relaxed to reduce institutional constraints and encourage listed companies to participate in market-based debt-to-equity swaps in a proper way.

Chapter II

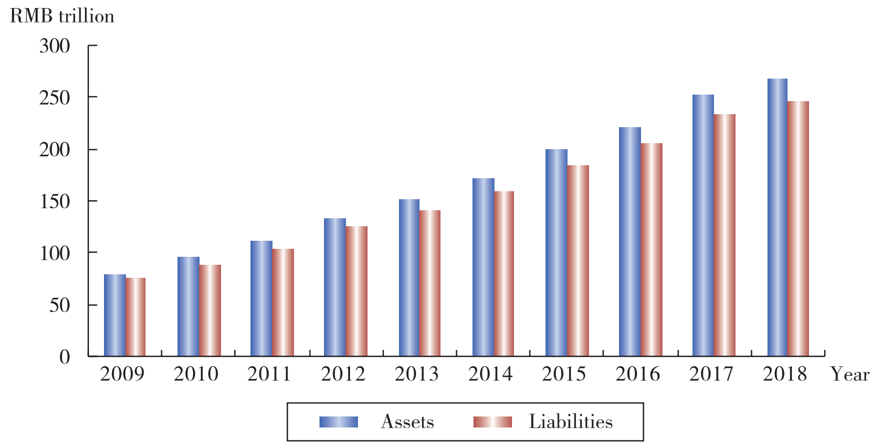
Soundness Assessment of the Financial Sector

In 2018, China's financial sector maintained sound performance amid the complicated economic and financial environment both at home and abroad. Financial institutions continued to expand in assets and liabilities with stable profitability and increasing risk preparedness. The financial market was generally stable. Nonetheless, the asset quality of the banking sector was under continuous pressure, the return of fund utilization by insurance companies declined and there were potential risks related to stock pledging. All these issues warranted attention.

I. Soundness Assessment of the Banking Sector

Assets and liabilities grew steadily. At end-2018, total assets of banking institutions registered RMB 268.24 trillion, increasing by 6.27 percent y-o-y, a deceleration of 2.4 percentage points from the previous year; and total liabilities registered RMB 246.58 trillion, up by 5.89 percent y-o-y, a deceleration of 2.5 percentage points from the previous year. Since 2017, the economy had faced increasingly large downward pressure and financial regulation had tightened. As a result, the expansion of the balance sheet of banking institutions had abated (Figure 2.1).

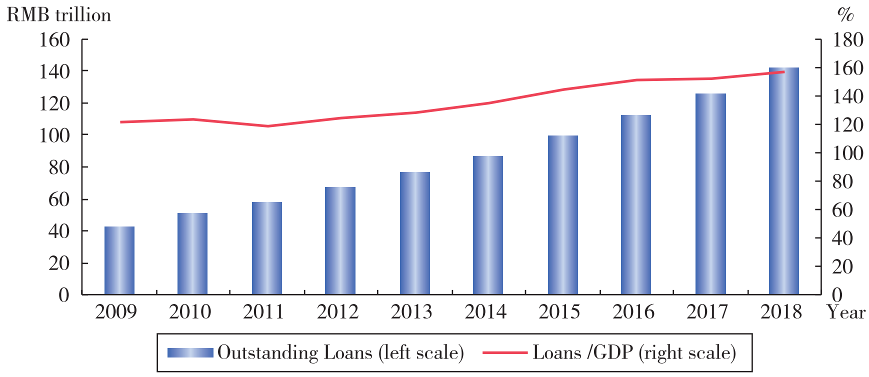
Figure 2.1 Assets and Liabilities of Banking Institutions



Source: The CBIRC.

Deposits and loans expanded steadily. At end-2018, total deposits denominated in both domestic and foreign currencies in financial institutions stood at RMB 182.52 trillion, an increase of 7.82 percent y-o-y, a deceleration of 0.98 percentage point compared to that at end-2017; and outstanding loans denominated in both domestic and foreign currencies by financial institutions stood at RMB 141.75 trillion, an increase of 12.85 percent y-o-y, an acceleration of 0.75 percentage point from end-2017 (Figure 2.2).

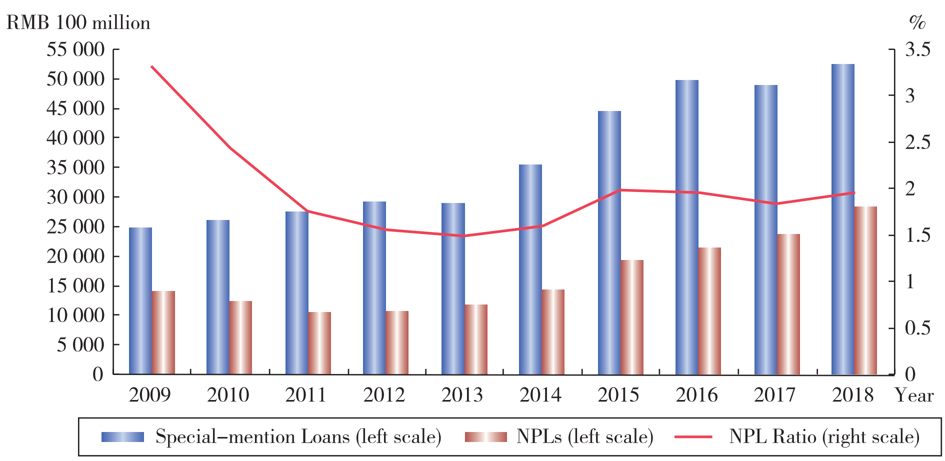
Figure 2.2 RMB Loans by Banking Institutions



Source: The PBC and NBS.

Non-performing loans (NPLs) increased and the loan classification was more prudent. At end-2018, NPLs of banking institutions totaled RMB 2.84 trillion, an increase of RMB 453.4 billion y-o-y; and the NPL ratio reached 1.97 percent, up by 0.11 percentage point y-o-y. In particular, NPLs of commercial banks increased by RMB 319.7 billion y-o-y to RMB 2.03 trillion, which demonstrated an upward trend for 28 consecutive quarters from the third quarter of 2012 to the fourth quarter of 2018. The NPL ratio of commercial banks was 1.83 percent, up by 0.09 percentage point y-o-y. Special-mention loans of banking institutions stood at RMB 5.27 trillion, up by RMB 359.4 billion y-o-y; and the special-mention loan ratio was 3.64 percent, down by 0.16 percentage point y-o-y (Figure 2.3). Loans overdue for over 90 days accounted for 87.36 percent of total NPLs, down by 5.13 percentage points y-o-y. In general, banking institutions were more prudent in identifying NPLs.

Figure 2.3 Special-mention Loans and NPLs of Banking Institutions

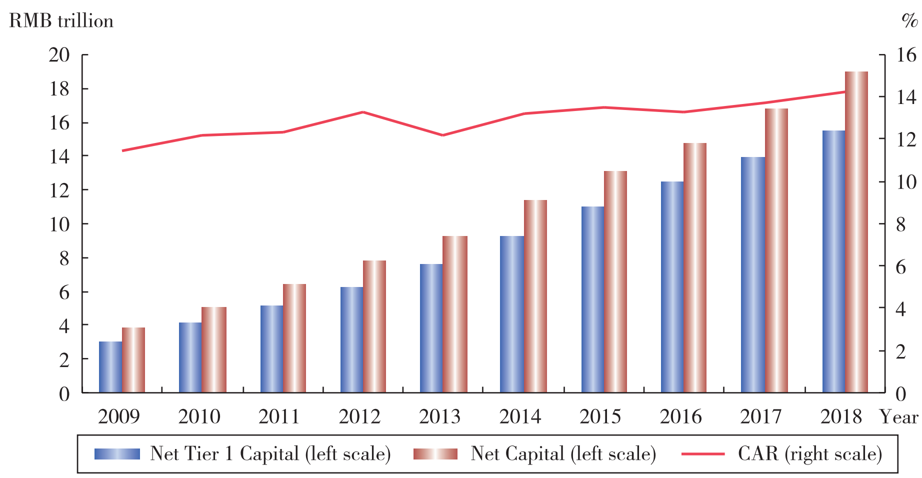


Source: The CBIRC.

Risk coverage of commercial banks was strong. At end-2018, loan loss provisions of commercial banks stood at RMB 3.77 trillion, up by RMB 678.9 billion y-o-y; the provision coverage ratio reached 186.31 percent, up by 4.89 percentage points y-o-y; and the provision to loan ratio registered 3.41 percent, up by 0.25 percentage point y-o-y.

Capital adequacy stabilized with an upward bias. At end-2018, the CET1 ratio of commercial banks reached 11.03 percent, up by 0.28 percentage point y-o-y; the Tier 1 ratio registered 11.58 percent, up by 0.24 percentage point y-o-y; and the CAR increased by 0.55 percentage point to 14.20 percent, indicating that the banking sector was well capitalized. Total CET1 accounted for 77.73 percent of net capital, demonstrating that capital quality was high (Figure 2.4).

Figure 2.4 CAR and Capital Structure of Commercial Banks①

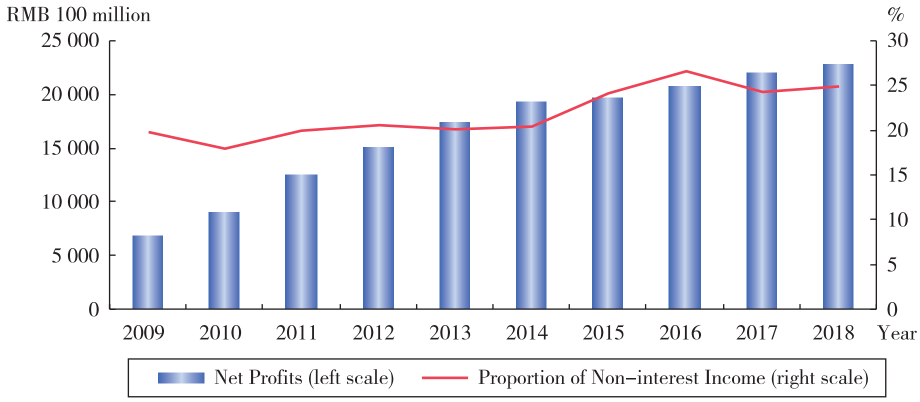


Source: The CBIRC.

Profit growth moderated and the proportion of non-interest income increased. In 2018, banking institutions gained net profits of RMB 2.28 trillion, an increase of 3.82 percent y-o-y, a deceleration of 2.3 percentage points. At end-2018, the ROA of banking institutions reached 0.88 percent, down by 0.03 percentage point y-o-y; and the ROE registered 11.09 percent, down by 0.81 percentage point y-o-y. The overall profitability of banking institutions declined in 2018 compared with the previous year. At end-2018, the net interest margin of banking institutions reached 2.07 percent, up by 0.07 percentage point y-o-y; and non-interest income accounted for 24.89 percent of total income, an increase of 0.65 percentage point y-o-y.

① CAR was calculated according to Basel III since 2013.

Figure 2.5 Net Profits and Proportion of Non-interest Income of Banking Institutions



Source: The CBIRC.

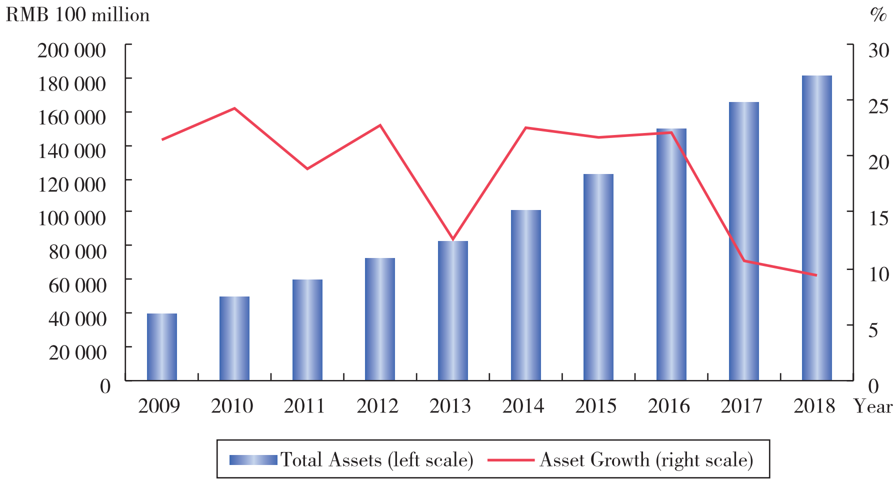
Liquidity was reasonably sufficient. At end-2018, the liquidity ratio of commercial banks registered 55.31 percent, the ratio of liquidity gap was 0.61 percent, the liquidity coverage ratio (LCR) of commercial banks with assets over RMB 200 billion reached 138.01 percent, and the net stable funding ratio (NSFR) stood at 121.45 percent.

The growth of off-balance-sheet businesses fell back. At end-2018, the outstanding off-balance sheet businesses of banking institutions (including entrusted loans and entrusted investments) posted RMB 338.42 trillion, an increase of 12.02 percent y-o-y, a deceleration of 7.15 percentage points from end-2017. The off-balance sheet assets are tantamount to 126.16 percent of total assets on balance sheet (assets of legal persons as the denominator), up by 6.47 percentage points from end-2017. Among all the off-balance sheet items, guarantee businesses registered RMB 20.66 trillion, commitment operations RMB 24.46 trillion, and financial asset services RMB 188.8 trillion.

II. Soundness Assessment of the Insurance Sector

Asset growth moderated, and insurance density as well as penetration lagged behind international levels. At end-2018, total assets in the insurance sector reached RMB 18.33 trillion, an increase of 9.45 percent y-o-y, a deceleration of 1.35 percentage points from end-2017. Among these, the assets of property insurance companies registered RMB 2.35 trillion, down by 5.92 percent y-o-y; the assets of personal insurance companies registered RMB 14.61 trillion, up by 10.55 percent y-o-y; the assets of reinsurance companies registered RMB 364.979 billion, up by 15.87 percent y-o-y; and the assets of asset management companies registered RMB 55.734 billion, up by 13.41 percent y-o-y. The insurance density increased by RMB 93 y-o-y to RMB 2 724, which was still much lower than the world average of USD 682. The insurance penetration declined by 0.2 percentage point to 4.22 percent, still lagging far behind the world average of 6.09 percent (Figure 2.6).

Figure 2.6 Total Assets and Asset Growth of the Insurance Sector



Source: The CBIRC.

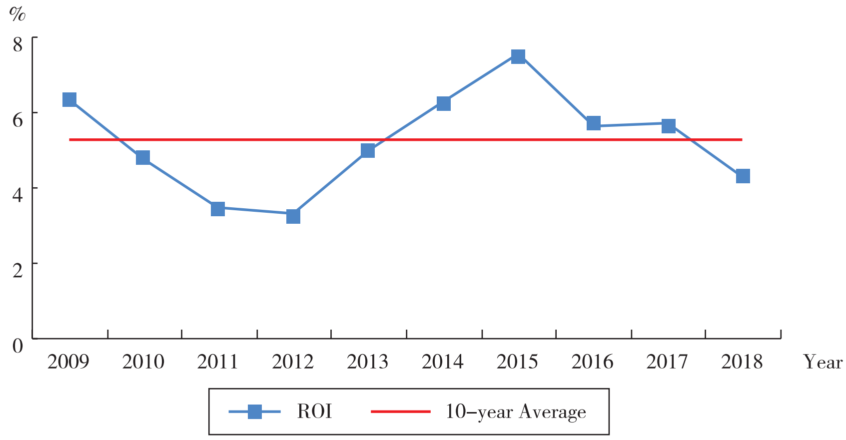
Fund allocation was more prudent while investment returns decreased. At end-2018, funds utilized by the insurance sector stood at RMB 16.41 trillion, an increase of 9.97 percent from the beginning of the year. In particular, the share of bonds, stocks, securities investment funds and other investments (mainly alternative investments) in the total investment declined while the share of bank deposits climbed up (Table 2.1). Due to the decline in stock market in 2018, insurance investment returns dropped by 17.88 percent y-o-y to RMB 685.9 billion, and the average return ratio declined by 1.44 percentage points y-o-y to 4.33 percent (Figure 2.7). As the expected return on bond investments came down, reinvestment risks for insurance funds arose and it became difficult to deploy new funds.

Table 2.1 Utilization of Insurance Funds (as of end-2018)

Investment Structure	Bank Deposits	Bonds	Stocks and Securities Investment Funds	Other Investments
Size (RMB trillion)	2.43635	5.638297	1.921987	6.412204
Proportion (%)	14.85	34.36	11.71	39.08
Y-o-y Change (Percentage Point)	1.93	-0.23	–0.59	–1.11

Source: The CBIRC.

Figure 2.7 Average ROI of Insurance Funds

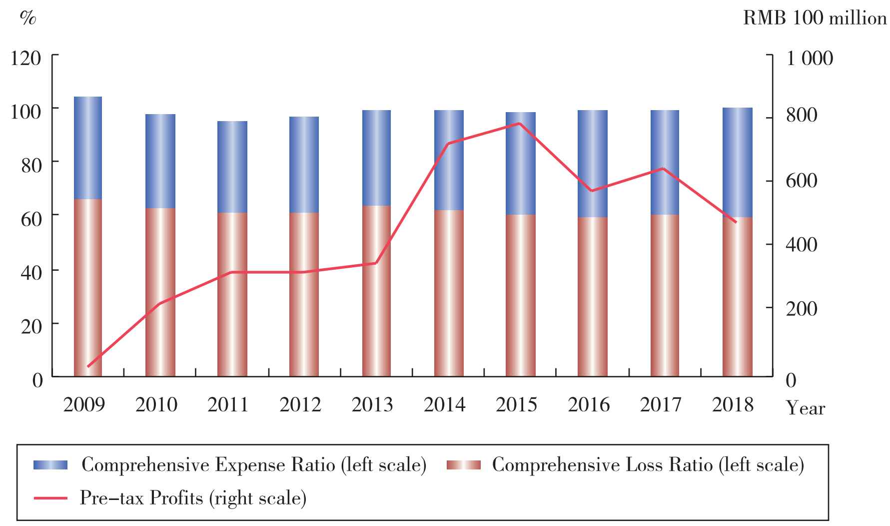


Source: The CBIRC.

The growth of property insurance premium moderated while non-auto insurance grew rapidly. In 2018, against the backdrop of auto sales growth slowing down and declining premium per policy due to reform of commercial auto insurance, the growth of auto insurance businesses slipped. Throughout the year, auto insurance premium only grew by 4.16 percent, and its share in total property insurance premium declined by 4.71 percentage points from end-2017 to 66.64 percent. In contrast, non-auto insurance grew rapidly at a rate of 29.84 percent. In particular, guarantee insurance and health insurance grew the most rapidly at a y-o-y rate of 70.09 percent and 44.39 percent respectively. However, due to their low weight, they made limited contribution to the overall growth of property insurance. In 2018, the premium income of property insurance companies recorded RMB 1.18 trillion, an increase of 11.52 percent y-o-y, a deceleration of 2.24 percentage points from the previous year.

High expense ratio pushed up the overall cost of property insurance companies and the operating profits declined. The reform of commercial auto insurance changed the driving and claiming habits of consumers, and thus reduced the loss ratio of auto insurance. However, as competition in auto insurance intensified, some property insurance companies put funds saved from claim and payments into sales, which caused the expense ratio to rise. In 2018, the combined expense ratio of property insurance companies climbed to 40.74 percent, up by 1.18 percentage points y-o-y. The combined cost ratio reached 100.13 percent. The underwriting losses registered RMB 1.359 billion, marking the first underwriting loss since 2011. Due to underwriting losses and the decline of investment returns, the pre-tax profits of property companies registered only RMB 47.32 billion, down by 26.02 percent y-o-y (Figure 2.8).

Figure 2.8 Underwriting Performance and Pre-tax Profits of Property Insurance Companies

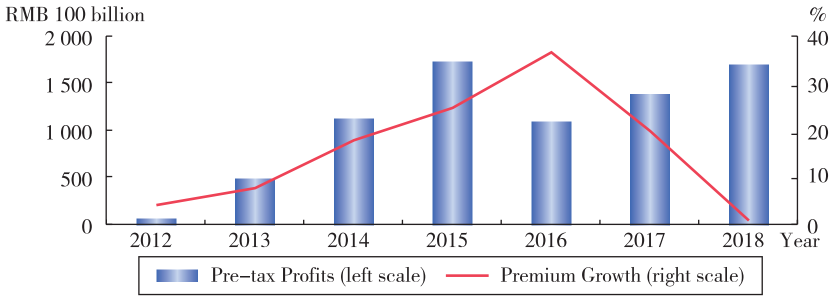


Source: The CBIRC.

The premium growth of personal insurance companies declined significantly and liquidity management became increasingly difficult. Due to regulation tightening and the business transition initiated by personal insurance companies, the sales growth of personal insurance products decreased remarkably in 2018. Throughout the year, the premium income of personal insurance companies only grew by 0.85 percent y-o-y, a deceleration of 19.2 percentage points from the previous year (Figure 2.9). The surrender pressure faced by personal insurance companies continued to rise. In 2018, the surrender rate increased by 0.31 percentage point y-o-y to 6.83 percent. As premium grew slowly and surrender rate rose, it became increasingly difficult to manage liquidity.

Personal insurance companies reduced provisions and profits increased. In 2018, the 750-day moving average of government bond yield went up gradually and personal insurance companies updated their discount rate assumption accordingly. As a result, their provisions declined, which released some profits. Though investment returns dropped by 17.05 percent y-o-y, personal insurance companies still realized pre-tax profits of RMB 169.768 billion, up by 22.07 percent y-o-y (Figure 2.9). The ROE increased by 1.84 percentage points y-o-y to 11.43 percent.

Figure 2.9 Pre-tax Profits and Premium Growth of Personal Insurance Companies



Source: The CBIRC.

The overall solvency of the insurance sector was adequate while the corporate governance remained to be improved. At end-2018, the comprehensive solvency adequacy ratio and the core solvency adequacy ratio of insurance companies were 242 percent and 231 percent respectively. In terms of comprehensive risk rating, there were 104 companies rated A and 69 rated B, which were of low risk; there were two companies rated C and another two rated D, which either failed to meet the standard for solvency adequacy ratio or met the standard but carried high risk. According to the on-site assessment of corporate governance in legal insurance entities by the CBIRC, good companies accounted for 8 percent of all 50 sample companies in 2018, down by 17.67 percentage points y-o-y; the share of special-mention companies increased by 2 percentage points from the previous year. In some companies, the shareholding structure was neither transparent nor compliant with regulations, the shareholder behaviors were imprudent or illegitimate, and the board of directors failed to deliver their due mandate. A few insurance companies adopted a related party transaction management framework in name without truly implementation, where extensive management was carried out, and the interest tunneling problem still existed. In addtion, some companies expanded blindly where weak internal management could not match their development pace.

The market became more concentrated and the profitability of small- and medium-sized insurance companies was weak. In 2018, the market share of the top five property insurance companies in terms of premium income reached 73.53 percent, a slight increase of 0.08 percentage point compared with the previous year. The Herfindahl-Hirschman Index (HHI)① for the property insurance sector was 0.172, a minor increase of 0.001 y-o-y. In personal insurance market, the market share of the top five companies and HHI for the personal insurance sector in terms of premium income were 55.84 percent and 0.092 respectively, up

① HHI is the sum of squares of every institution's market share in the sector. The higher the HHI goes, the more concentrated the market is.

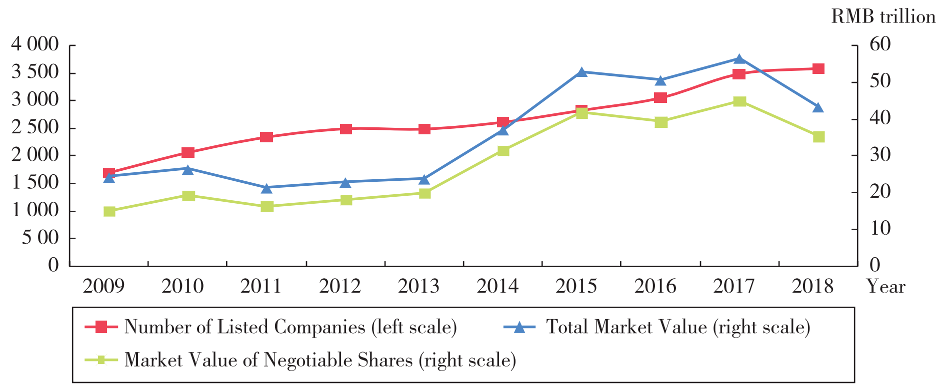
by 3.61 percentage points and 0.011 y-o-y; while in terms of written premiums①, the market share of the top five companies and HHI for the personal insurance sector were 53.0 percent and 0.079 respectively, up by 1.99 percentage points and 0.003 from the previous year. The divergence of insurance companies in profitability widened. Big companies were highly profitable. In contrast, due to weak governance, insufficient basic inputs, poor innovation, lack of own channels and high product homogeneity, small- and medium-sized insurance companies faltered and their profit margin was squeezed. Among property insurance companies, the top 10 companies in terms of premium income accounted for over 100 percent of the total net profits of the whole industry. The same was true with the personal insurance sector. In the property insurance sector, 40.9 percent of companies incurred loss, and the figure was 41.1 percent for the personal insurance sector.

III. Soundness Assessment of the Securities Sector

1. Performance of Listed Companies Slipped While Goodwill Impairment Risk Surfaced

At end-2018, there were 3 584 companies listed on the Shanghai Stock Exchange and Shenzhen Stock Exchange altogether, an increase of 99 from the end of the previous year. Six companies were de-listed during the year. Total market value and that of negotiable shares reached RMB 43.50 trillion and 35.38 trillion respectively, down by 23.35 percent and 21.22 percent y-o-y (Figure 2.10). The market value of negotiable shares accounted for 81.34 percent of total market value, up by 2.20 percentage points y-o-y.

Figure 2.10 Number and Market Value of Listed Companies, 2009-2018



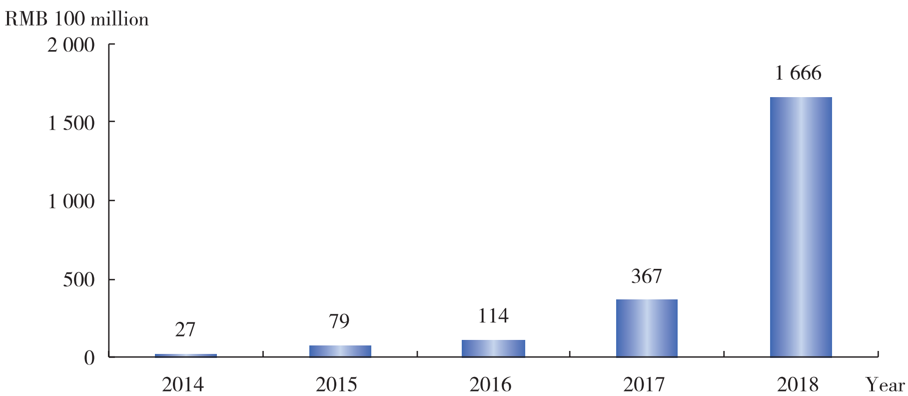
Source: The CSRC.

① Written premium refers to the real sales revenue of all insurance products, which equals to the sum of original premium (i.e. premium), new payment from insurance investments by policyholders, and new payment from the independent account of investment-linked insurance.

Performance of listed companies slipped in 2018. As of April 30, 2019, 3 576 listed companies had disclosed their 2018 annual reports. Of these, 3 120 companies (87.25 percent of total) posted profits; 456 companies (12.75 percent of total) registered losses, of which 387 companies reported losses for the first time whereas 69 companies reported consecutive losses. In 2018, listed companies gained total operating revenue of RMB 45.27 trillion, up by 12.28 percent y-o-y; net profits declined by 1.64 percent y-o-y to RMB 3.36 trillion.

Some listed companies suffered significant goodwill impairment. In the past several years, listed companies had been active in mergers and acquisitions, and the size of goodwill resulting from high-premium acquisitions had gone up notably year by year (Figure 2.11). Once the bad performance of the acquirees triggered the value adjustment mechanism, the listed company would face goodwill impairment risk. Among those listed companies that had disclosed their annual reports by April 30, 2019, 884 ones suffered goodwill impairment, the market value of which amounted to about RMB 166.6 billion, up by 358 percent y-o-y. In particular, the growth of goodwill impairment losses for 166 listed companies exceeded 100 percent, and the goodwill impairment losses for 82 list companies was over ten folds more than the previous year.

Figure 2.11 Goodwill Impairment Losses of Listed Companies

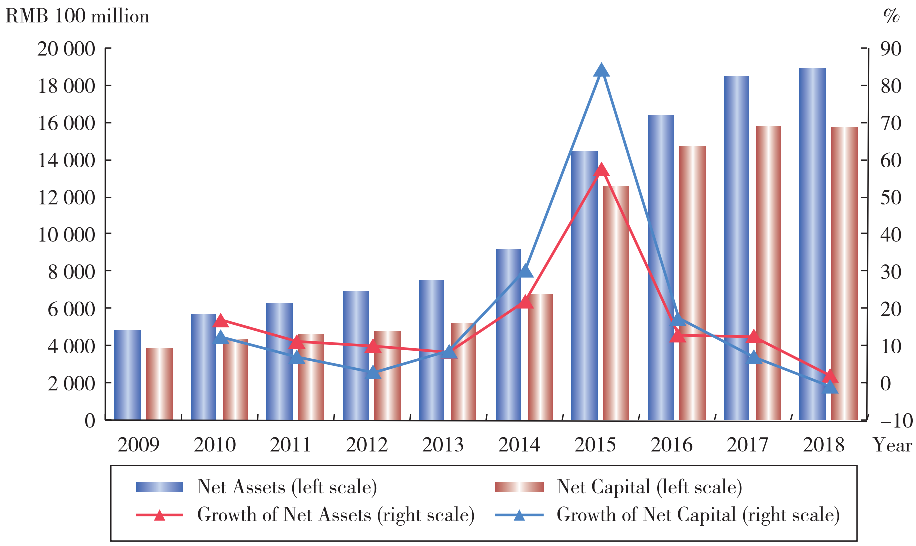


Source: Annual Reports of Listed Companies.

2. Profits of Securities Companies Declined Y-o-y While Risk of Stock Pledging Continued to Rise

At end-2018, there were altogether 131 securities companies, the same as the end of the previous year. Among them, 32 securities companies were listed, up by 3 y-o-y. Securities companies had total assets of RMB 6.26 trillion, an increase of 1.95 percent y-o-y. Net assets registered RMB 1.89 trillion, a growth of 2.16 percent y-o-y. Net capital reported RMB 1.57 trillion, down by 0.63 percent y-o-y, marking the growth rate turning negative (Figure 2.12).

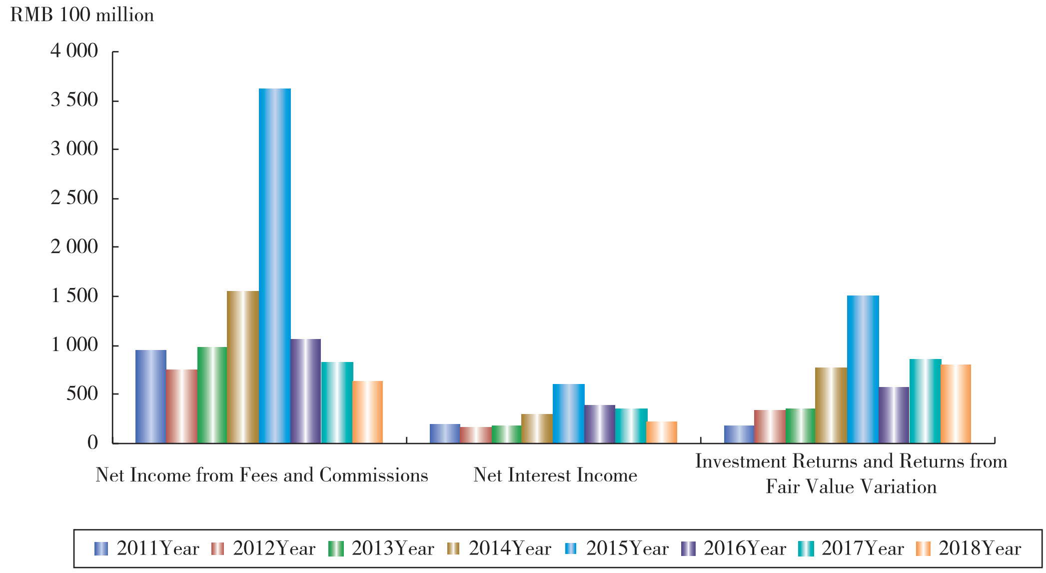
Figure 2.12 Net Assets and Net Capital of Securities Companies, 2009-2018



Source: The CSRC.

The profitability of securities companies deteriorated. In 2018, the operating revenue of the entire securities sector declined by 14.47 percent y-o-y to RMB 266.287 billion. All types of businesses reported declining revenue. In particular, net income from the agency business (including seat leases) registered RMB 62.342 billion, down by 24.06 percent y-o-y; net income from securities underwriting and sponsoring registered RMB 25.846 billion, down by 32.73 percent y-o-y; net income from financial consultancy registered RMB 11.15 billion y-o-y, down by 11.06 percent; net income from investment consultancy registered RMB 3.152 billion, down by 7.18 percent y-o-y; net income from asset management registered RMB 27.5 billion, down by 11.35 percent y-o-y; securities investment returns (including fair value variation) registered RMB 80.027 billion, down by 7.05 percent y-o-y; net interest income registered RMB 21.485 billion, down by 38.28 percent y-o-y. The securities sector gained net profits of RMB 66.62 billion, down by 41.04 percent y-o-y (Figure 2.13).

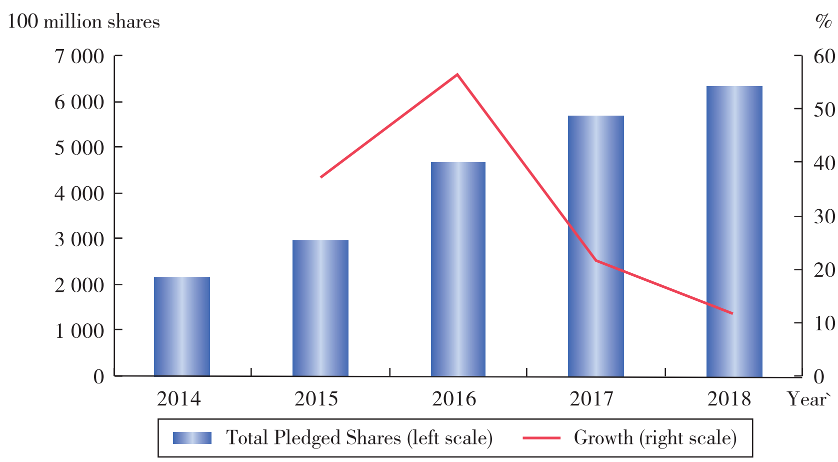
Figure 2.13 Securities Companies' Revenue Structure, 2011-2018



Source: The CSRC.

Risk with stock pledging continued to rise. In recent years, stock pledging by shareholders of listed companies had risen rapidly with risks piling up. At end-2018, the size of pledged A-shares reached 635.4 billion shares, which was about three folds of that at end-2014 (Figure 2.14). In 2018, as the A-share market went down notably, the margin call risk of stock pledging increased, which affected investor confidence and became one of the important factors destabilizing the stock market.

Figure 2.14 Size and Y-o-y Growth of Stock Pledging by Shareholders of Listed Companies



Source: The China Securities Depository and Clearing Corporation Limited (CSDC).

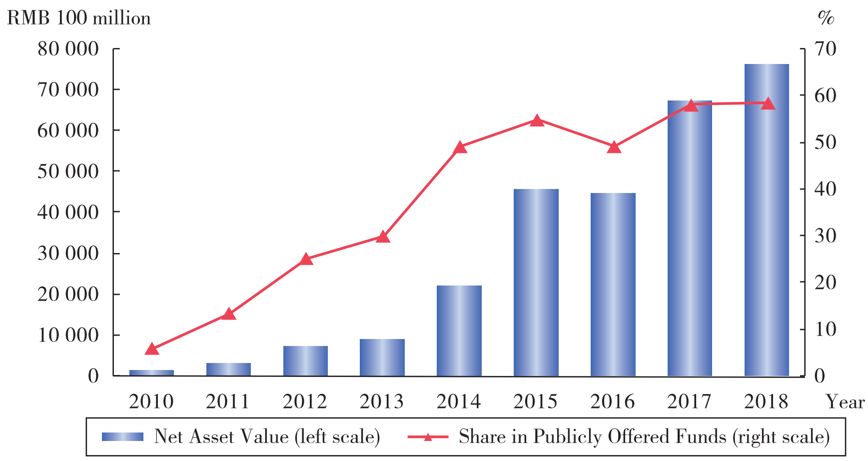
In general, securities companies displayed weak capital constraint as well as inadequate compliance and risk control in financing businesses such as stock pledging and repurchases, as well as offshore businesses, which led to rapid risk buildup and high exposure. Some securities companies did not incorporate enough risk control in financing businesses. They failed to conduct thorough assessment of borrowers' credit profiles and sources of repayment. They even relied pledged stocks as the only source for repayment without considering the fact that A-share prices fluctuated significantly and some shareholders with controlling stakes in listed companies cashed their interests out from stock pledging. The stock pledging rate was too high and the risk exposure was large. Several securities companies got exposed to material risks in offshore mergers and acquisitions and derivatives investments, which caused large losses and severely dragged down the overall performance of these companies. This demonstrated that the offshore businesses of securities companies were weak in risk control and compliance.

3. Net Asset Value of Fund Management Companies Continued to Grow While the Overall Risk of Money Market Funds Remained Under Control

At end-2018, there were 120 fund management companies across the country, up by 7 from the end of the previous year. Total value of assets managed by fund management companies and other 15 fund management institutions which were licensed to manage publicly offered funds registered RMB 13.03 trillion, up by 12.37 percent y-o-y. Specifically, equity funds accounted for 6.33 percent, down by 0.23 percentage point y-o-y; hybrid funds accounted for 10.44 percent, down by 6.27 percentage points y-o-y; fixed income funds accounted for 17.36 percent, up by 4.73 percentage points y-o-y; money market funds accounted for 58.44 percent, up by 0.37 percentage point y-o-y. By 2018, 24 448 private equity fund managers had registered, managing 74 642 private equity funds. And RMB 12.78 trillion of these funds had been subscribed, up by 15.12 percent y-o-y.

The overall risk of money market funds remained under control. Due to the decline of the risk-free interest rate, the share of money market funds in total publicly offered funds was reined in, and the size of money market funds that were of systemic importance decreased (Figure 2.15).

Figure 2.15 Net Asset Value of Money Market Funds and Its Share in Publicly Offered Funds, 2010-2018



Source: The CSRC.

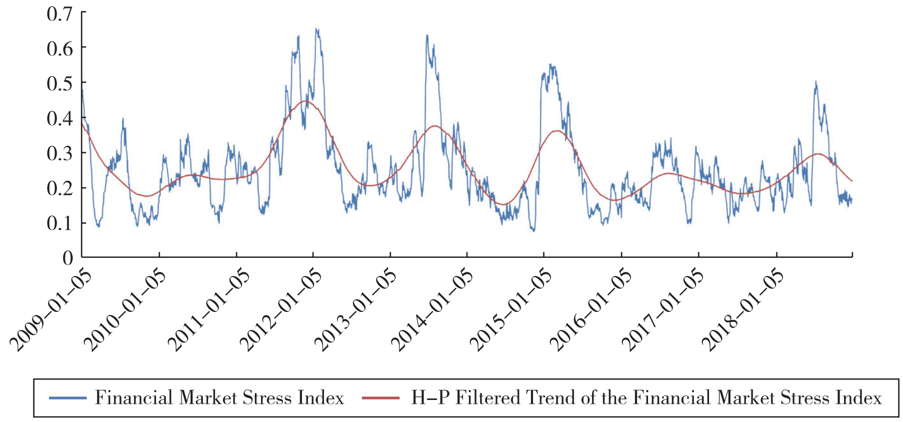
4. Futures Companies Grew Steadily With An Accelerating Pace of Opening-up

At end-2018, there were 149 futures companies in China, under which there were 79 risk management subsidiaries and 10 asset management subsidiaries. Total assets of the futures industry amounted to about RMB 540 billion. Altogether, 61 futures and options were listed. Among these, there were 51 commodity futures, 6 financial futures, 3 commodity options, and 1 financial option. In 2018, new products such as crude oil futures, 2-year government bond futures, copper options, wood pulp futures and ethylene glycol futures were launched. Meanwhile, China's futures industry sped up its pace of opening-up. In May and November, iron ore futures and PTA futures trading was opened to foreign traders respectively.

IV. Soundness Assessment of the Financial Market

China's financial market was generally stable. In 2018, stock market stress intensified compared with the previous year while bond market stress eased, and money market and foreign exchange market stress remained stable. The comprehensive stress index for the financial market was modest (Figure 2.16).

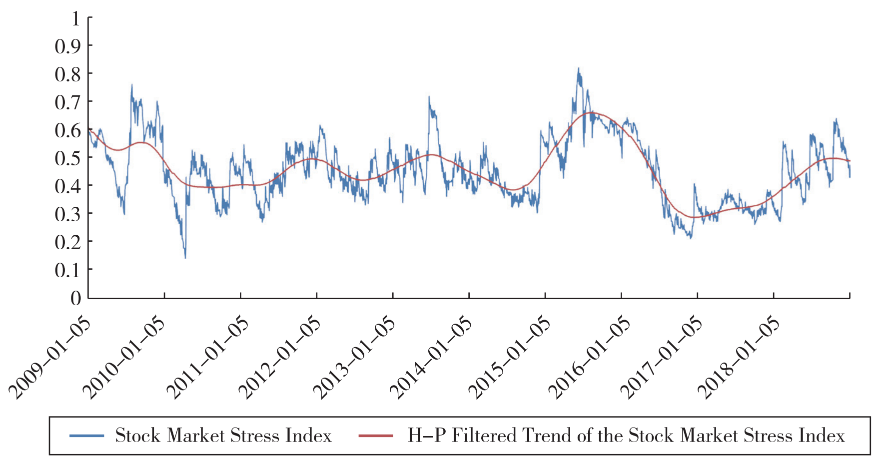
Figure 2.16 Financial Market Stress Index, 2009-2018



Source: The PBC.

The stock market declined amid higher stress. Since February 2018, the stock market has been declining significantly due to factors both at home and abroad, reversing an upward trend since the beginning of the year. Throughout 2018, the Shanghai Stock Exchange Composite Index dropped by 24.59 percent and the Shenzhen Stock Exchange Component Index dropped by 34.42 percent. In terms of the stock market stress index, the volatility risk of the A-share market elevated to a high level in 2018 whereas the valuation risk pulled back remarkably during the year. At end-2018, the rolling P/E ratios of all AB shares, small- and medium-sized enterprise (SME) board, and ChiNext registered 13.14, 23.27 and 41.5 times respectively; and their P/B ratios reached 1.35, 2.07 and 2.8 times respectively. In general, the A-share market stress index remained at a relatively high level throughout 2018 (Figure 2.17).

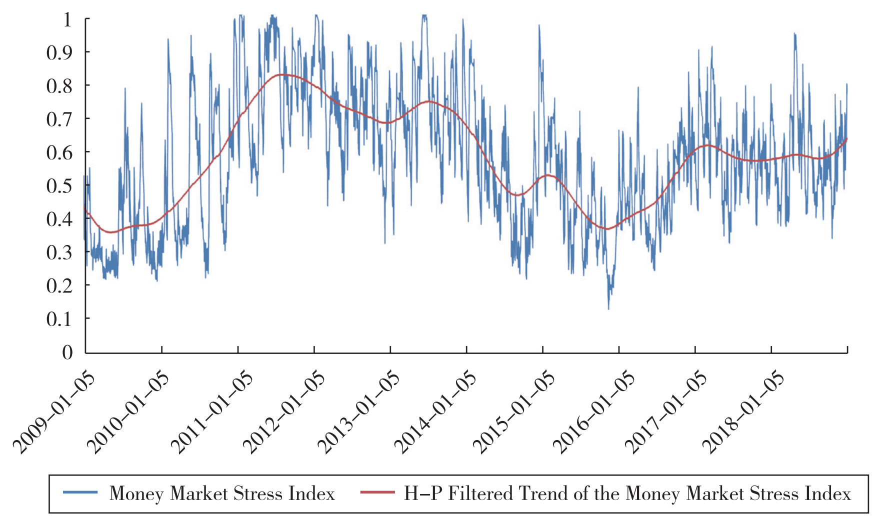
Figure 2.17 Stock Market Stress Index, 2009-2018



Source: The PBC.

Money market rates came down with market stress basically the same as the previous year. In 2018, the aggregate liquidity in the money market was reasonably sufficient, and money market rates stabilized with a downward bias in general. On December 29, 2018, the weighted average of overnight pledged repo rate by depository institutions decreased by 48.22 basis points from the end of the previous year to 2.48 percent; and the weighted average of 7-day pledged repo rate declined by 5.21 basis points to 3.04 percent. The Shanghai Interbank Offered Rates (Shibors) went down. In particular, the overnight Shibor decreased by 28.6 basis points from the end of the previous year to 2.55 percent, the 7-day Shibor dropped by 5.1 basis points to 2.90 percent, and the 3-month Shibor decreased by 156.7 basis points to 3.35 percent. In terms of the market stress index, the money market faced moderately high stress in 2018, the same as that in 2017 (Figure 2.18).

Figure 2.18 Money Market Stress Index, 2009-2018

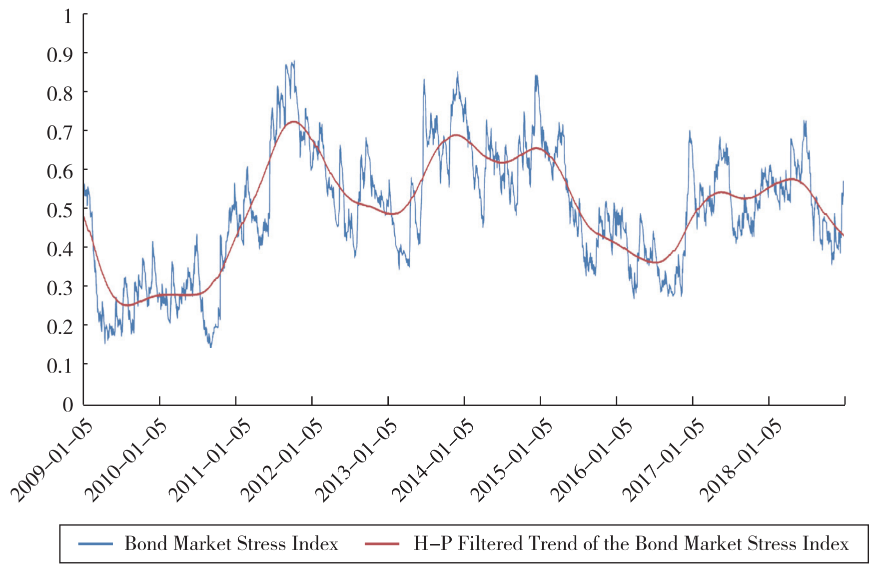


Source: The PBC.

Credit risk in the bond market increased but market stress moderated. In 2018, the overall bond market stress declined. Among the three components of the bond market stress index, pessimistic expectation of institutional investors eased whereas credit risk and fluctuation risk went up. Specifically, as money market rates came down, the Federal Reserve failed to hike the interest rate as expected and domestic economy slowed down, bond market yields declined throughout the year, and the yield curve of government bonds declined amid stabilization. The daily average term spread between 1-year and 10-year government bonds reached 59.79 basis points, up by 30.2 basis points from that of the previous year. In 2018, 130 corporate credit bonds from 46 issuers defaulted with a total issuing amount of RMB 124.3 billion, an increase of about 219 percent y-o-y. The daily average spread between 1-year

AA-rated medium-term notes and 1-year government bonds was 174 basis points, up by 15.8 basis points y-o-y; and the daily average spread between 5-year AA-rated medium-term notes and 5-year government bonds was 202 basis points, up by 25.9 basis points. The spread (credit risk premium) between AA-rated medium-term notes and government bonds of key maturities widened. In general, the bond market faced less stress in 2018 than in 2017 (Figure 2.19).

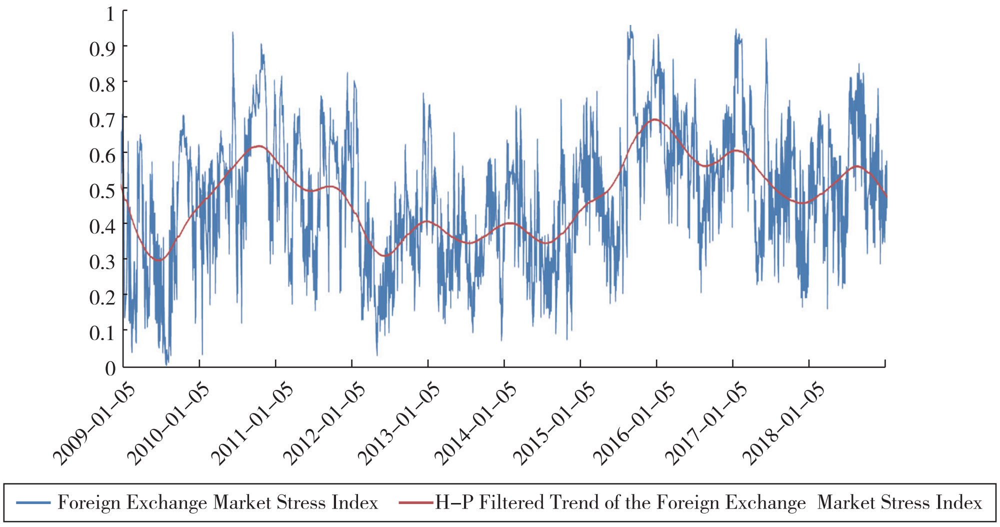
Figure 2.19 Bond Market Stress Index, 2009-2018



Source: The PBC.

The RMB depreciated against the USD slightly while foreign exchange market stress first went up and then came down. In 2018, the RMB depreciated a little bit against the USD with bigger two-way movements. The RMB exchange rate against a basket of currencies was basically stable. At end-2018, the exchange rate of RMB/USD closed at 6.8658 yuan per dollar in the onshore market, depreciating by 3 538 basis points or 5.15 percent y-o-y; the exchange rate of RMB/ USD closed at 6.8702 yuan per dollar in the offshore market, depreciating by 3 566 basis points or 5.19 percent y-o-y. In January 2018, the spot exchange rate of RMB/USD appreciated slightly. Since the second quarter, the RMB depreciated against the USD due to strengthening dollar index and the China-U.S. trade tensions. On August 24, the PBC reintroduced the countercyclical factor and thus effectively reined in the RMB depreciation trend. From November to the year-end, the RMB bounced back against the USD. In general, the foreign exchange market stress first rose then declined, and the stress at the year-end was on a par with that at end-2017 (Figure 2.20).

Figure 2.20 Foreign Exchange Market Stress Index, 2009-2018



Source: The PBC.

Special Topic 4 The Banking Sector Stress Testing

In order to improve the systemic financial risk monitoring and early warning system, to promote more forward-looking and more rigorous financial stability assessments, and to make stress testing a more powerful tool in macroprudential management and in prevention of systemic financial risks, the PBC carried out the banking sector stress testing in the first half of 2019. A selected sample of 1 171 banks was required to undergo the stress testing, which aimed to evaluate the impact of extreme but plausible shocks on the resilience of the banking sector. The stress testing was composed of solvency stress tests and liquidity stress tests.

I. General Description of the Stress Testing

Sample banks. The tests covered a selection of 6 large commercial banks, 12 joint-stock commercial banks, 68 city commercial banks, 383 rural commercial banks, 212 rural credit cooperatives, 8 rural cooperative banks, 435 village and township banks, 8 private banks and 39 foreign banks. As of end 2018, the total assets of the 1 171 tested banks stood at 70.3 percent of the total assets of all the banking institutions. Among the sample banks, 30 large- and medium-sized commercial banks with assets over RMB 800 billion① were requested to undergo solvency stress tests and liquidity tests, while the rest 1 141 banks were requested to undergo solvency tests based on sensitivity analysis and liquidity stress tests.

Test Approaches. Solvency stress tests, which were conducted either based on macroeconomic scenarios or on sensitivity analysis, evaluated the adverse impact of economic downturn and risk deterioration in overall or key areas on capital adequacy of banks. Liquidity stress tests examined the capacity of banks to withstand large withdrawals of funding of different maturities caused by liquidity risk factors, including policy changes, macroeconomic fluctuation, unexpected events, etc. All the tests were conducted based on end-2018 data.

Pass-fail Criteria. For the solvency tests based

① Including 6 large commercial banks (Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, China Construction Bank, Bank of Communications and Postal Savings Bank of China), 12 joint-stock commercial banks (China CITIC Bank, China Everbright Bank, Huaxia Bank, China Minsheng Bank, China Merchants Bank, Industrial Bank, China Guangfa Bank, Pingan Bank, Shanghai Pudong Development Bank, Hengfeng Bank, Zheshang Bank and Bohai Bank), 9 city commercial banks (Bank of Beijing, Bank of Shanghai, Bank of Jiangsu, Bank of Nanjing, Bank of Ningbo, Shengjing Bank, Huishang Bank, Bank of Hangzhou and Bank of Jinzhou) and 3 rural commercial banks (Chongqing Rural Commercial Bank, Beijing Rural Commercial Bank and Shanghai Rural Commercial Bank).

on macroeconomic scenarios, a bank would fail the test if the post-stress CET1 ratio falls below 7.5 percent, or if Tier1 ratio falls below 8.5 percent, or if total CAR falls below 10.5 percent (the 2.5 percent capital conservation buffer requirement included). For the solvency tests based on sensitivity analysis, a bank would fail the test if its CAR falls below 10.5 percent after the shock. For the liquidity tests, banks could counterbalance negative funding gaps (where cash outflows exceed cash inflows) by liquidating their eligible high-quality liquid assets or by using the eligible high-quality liquid assets as collaterals to obtain liquidity assistance from the PBC. Only when a bank has no eligible high-quality liquid assets and there are still negative funding gaps, it would fail the test.

Stress Scenarios[①]**.** Two scenarios were designed for the solvency stress tests - an adverse scenario and a severely adverse scenario. The scenarios were calibrated on factors including GDP growth rate, inflation rate, policy interest rate, short-term and long-term market interest rate, RMB to USD exchange rate, etc. Sensitivity analysis tested the impact of a set of independent variables, including NPL ratio in the whole credit portfolio, NPL ratio in specific industries, loss given default, changes in the bond yield curve, etc. Liquidity stress tests used an adverse scenario and a severely adverse scenario. Building blocks for these scenarios were roll-off rates of assets and run-off rates of funding sources or contingent liabilities of the banks. In each scenario, a maturity ladder analysis was adopted to calculate the net funding gaps for each individual bank (Table 2.2).

Table 2.2 Scenarios for the Banking Sector Stress Tests

<table>
<tr><th>Approaches</th><th colspan="2">Risk Exposure</th><th>Stress Scenarios</th></tr>
<tr><td rowspan="5">Solvency Tests based on Macro-economic Scenarios</td><td rowspan="2">Credit Risk</td><td>Loans</td><td rowspan="2">• Adverse: GDP growth rate down to 5.3 percent y-o-y
• Severely Adverse: GDP growth rate down to 4.15 percent y-o-y
(Other macroeconomic indicators were calibrated by macro econometric models)</td></tr>
<tr><td>Investment Receivables</td></tr>
<tr><td rowspan="3">Market Risk</td><td>Interest Rate Risk on Banking Book</td><td>• Adverse: interest rate of liabilities up by 65 bps, lending rate up by 39 bps, and interest rate of other assets up by 65 bps
• Severely Adverse: interest rate of liabilities up by 167 bps, lending rate up by 100 bps, and interest rate of other assets up by 167 bps</td></tr>
<tr><td>Bond Portfolios</td><td>• Adverse: short-term interest rate up by 65 bps, and long-term interest rate up by 83 bps
• Severely Adverse: short-term interest rate up by 167 bps, and long-term interest rate up by 215 bps</td></tr>
<tr><td>FX Exposure</td><td>• Adverse: RMB depreciating by 3.17 percent against USD
• Severely Adverse: RMB depreciating by 4.23 percent against USD</td></tr>
</table>

① The stress scenarios were based on projections of macro econometric models, and should not be interpreted as the PBC's judgments on the macro economy.

(concluded)

Approaches	Risk Exposure	Stress Scenarios
Solvency Tests based on Sensitivity Analysis	Loans	• Mild Shock: NPL ratio up by 100 percent[1] • Medium Shock: NPL ratio up by 300 percent • Severe Shock: NPL ratio up by 700 percent
	Real Estate Loans	• Mild Shock: NPL ratios of real estate development loans[2] and housing purchase loans[3] up by 5 percentage points[4] • Medium Shock: NPL ratio of real estate development loans up by 10 percentage points, and NPL ratio of housing purchase loans up by 7 percentage points • Severe Shock: NPL ratio of real estate development loans up by 15 percentage points, and NPL ratio of housing purchase loans up by 10 percentage points
	Local Government Debt[5]	• Mild Shock: NPA ratio up by 5 percentage points • Medium Shock: NPA ratio up by 10 percentage points • Severe Shock: NPA ratio up by 15 percentage points
	Concentration Risk	• Mild Shock: The largest group client defaults with the loss given default rate of 60 percent • Medium Shock: The largest three group clients default with the loss given default rate of 60 percent • Severe Shock: The largest five group clients default with the loss given default rate of 60 percent
	Credit Risk of the Off-balance Sheet Exposures[6]	• Mild Shock: 5 percent loss in the sponsored off-balance sheet exposures • Medium Shock: 10 percent loss in the sponsored off-balance sheet exposures • Severe Shock: 15 percent loss in the sponsored off-balance sheet exposures
	Investment Losses	• Shock 1: 400 bps parallel upward shift in the non-policy financial bond yield curve • Shock 2: 400 bps parallel upward shift in the non-financial corporate bond yield curve • Shock 3: 10 percent loss in the non-bond investments
Liquidity Tests	On balance Sheet Items and Contingent Liabilities	• 2 scenarios: adverse and severely adverse • Based on maturity, assigning different roll-off rates and run-off rates to assets and funding sources, respectively

Notes: ① Assuming that the initial NPL ratio is X%, up by n% means that the NPL ratio becomes X% (1+n%)。

② Real estate development loans include land development loans and housing development loans. Land development loans include land reserve loans to government agencies. Housing development loans include residential housing development loans (including indemnificatory housing), commercial housing development loans and other real estate development loans.

③ Housing purchase loans could be extended to enterprises, governmental organizations and individuals. The enterprise housing purchase loans include commercial housing loans and operating loans for the purpose of property management, while housing purchase loans extended to individuals could be used either for commercial or residential purpose.

④ Assuming that the initial NPL ratio is X%, up by n percentage points means that NPL ratio becomes (X+n) %.

⑤ Including investments in local government bonds, loans to government-invested projects, funding to local governments through SPVs (e.g. wealth management products, trust investment schemes, etc.) and other fund raisings that take the local government fiscal revenue as the source of repayment.

⑥ According to the calibration of Sheet G4B-2 in the regulatory reporting system, off-balance sheet exposures include loan facilities equivalent to loans, transaction-related contingent exposures, short-term contingent exposures related to trades, commitments, sales and purchase agreements of which banks retain credit risks, forward asset purchases, forward time deposits, partially-paid stocks and securities, securities lent out or collateralized by banks, other off-balance sheet items, and ABS-related off-balance sheet exposures. Banks are assumed to hold margins as much as 50 percent of the off-balance sheet exposures; once there are losses, banks would pay the amount that is beyond the margins.

II. Overall Results of the Solvency Stress Tests

1. Solvency Tests based on Macroeconomic Scenarios

The 30 tested banks remain resilient to external shocks as a whole. According to the results of solvency tests based on macroeconomic scenarios, the 30 banks are of relatively strong capital adequacy and sound performance. Under the adverse and severely adverse scenarios, their CET 1 ratio would fall from an actual level of 10.95 percent to 10.16 percent and 8.34 percent respectively, Tier 1 ratio would fall from 11.66 percent to 10.83 percent and 9.04 percent respectively, and total CAR would fall from 14.43 percent to 13.47 percent and 11.78 percent respectively (Figure 2.21). Even dropping by 2.65 percentage points after the most severe hypothetical shock, total CAR of the 30 banks remains well above the minimum regulatory requirement, which confirms the banks' strong capabilities to withstand a severe macroeconomic shock. Nine banks fail the test under the adverse scenario while seventeen banks fail the test under the severely adverse scenario. It should be noted that the PBC has adopted more rigorous hurdle rates for stress testing compared to internationally normal practice. According to Basel III rules, the 2.5 percent capital conservation buffer is an additional cushion that is beyond the minimum capital requirement. In common practice worldwide, the hurdle rates in stress tests normally do not include the capital conservation buffer. If we remove the capital conservation buffer requirement from the hurdle rates of PBC's stress testing, one and seven banks would fail the tests under the adverse scenario and the severely adverse scenario, respectively (Figure 2.22).

Figure 2.21 Overall Results of Solvency Tests based on Macroeconomic Scenarios

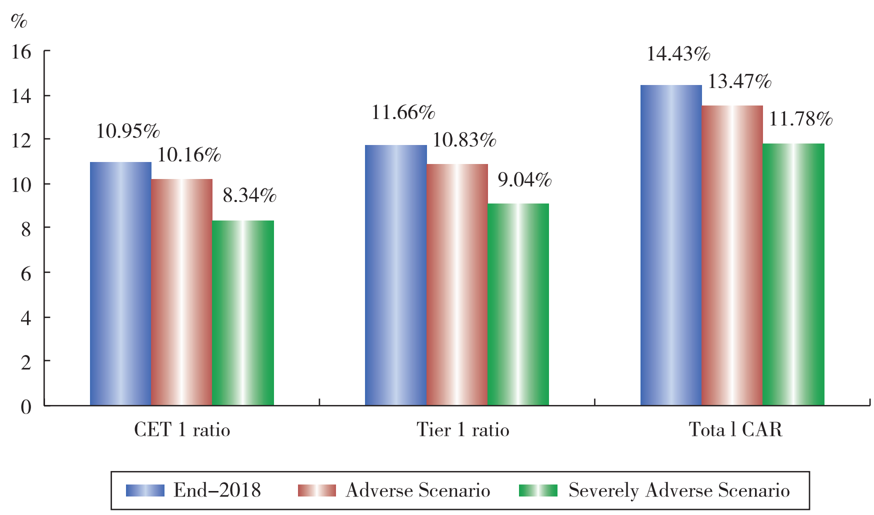
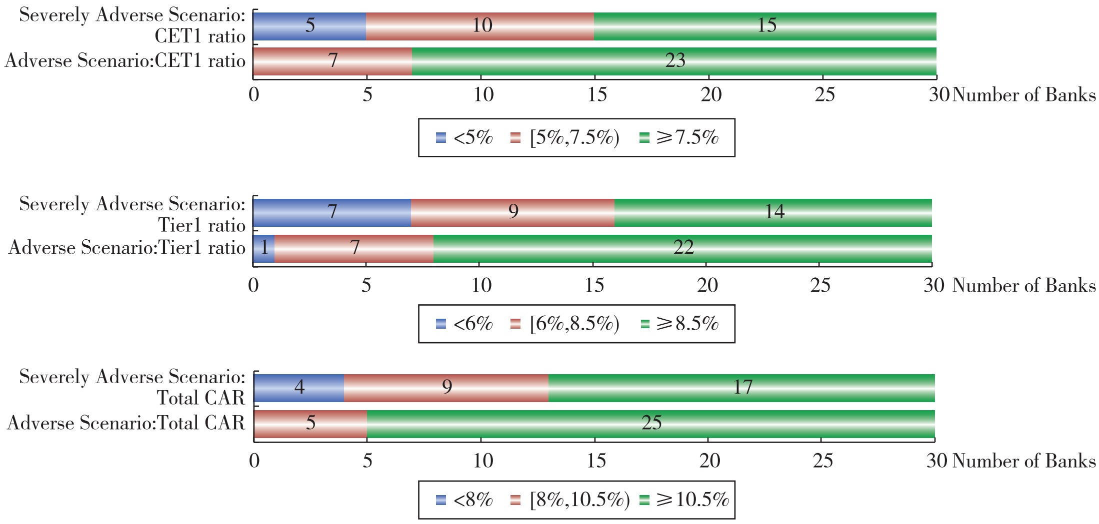


Figure 2.22 Distribution of the Tested Banks' CARs after Shock

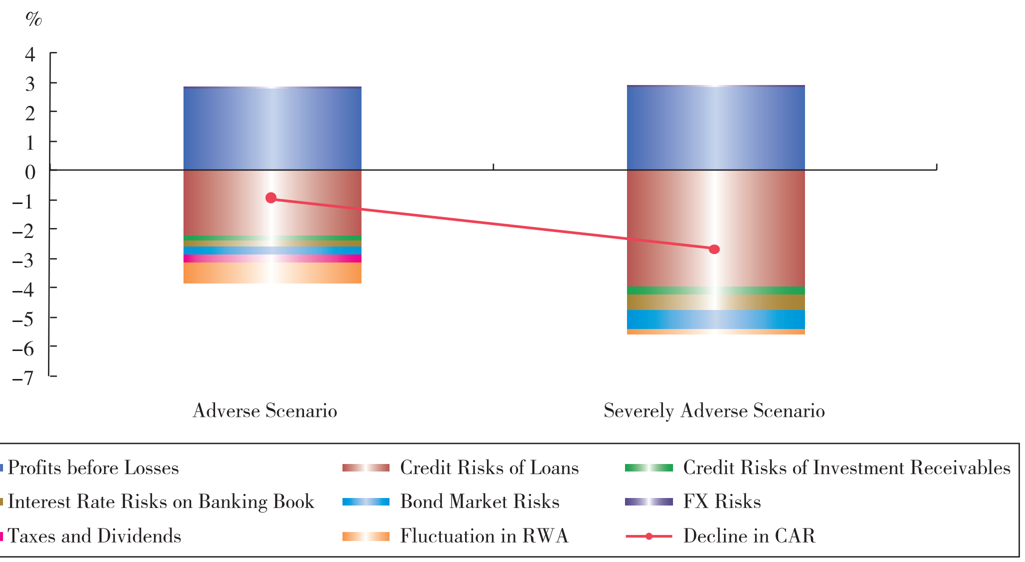


Credit risk is the main source of risks for the 30 banks. Under the severely adverse scenario, credit risk losses contribute to almost 80 percent of the total losses. The key driving factors are deterioration of loan quality and increase of the NPL ratio in a severe recession. Under the adverse scenario and severely adverse scenario, the NPL ratio of the 30 banks would increase from 1.46 percent to 5.42 percent and 7.38 percent respectively, leading the total CAR down by 2.2 percentage points and 3.92 percentage points respectively(Figure 2.23).

Market risk bears limited influence. Compared to credit risk, market risk has relatively modest impact on capital adequacy of the 30 banks. Under the severely adverse scenario, interest rate risks on banking book and bond investment risks would lower the total CAR by 0.54 and 0.64 percentage point respectively; while RMB depreciation would level the total CAR up by 0.01 percentage point (Figure 2.23).

Adequate provisioning and stable profitability could effectively alleviate the pressure on capital adequacy. As of end-2018, the overall provision coverage ratio of the 30 banks was 216.7 percent, far above the minimum regulatory requirement. As a countercyclical management tool, loan loss provisions could be used as a buffer against a recession. In addition, the overall profitability of the banks is quite strong. As of end-2018, average ROA of the 30 banks stood as 0.92 percent. By absorbing losses ahead of capital in stress, banks' profits could be leveraged as the mitigant for the pressure on capital positions.

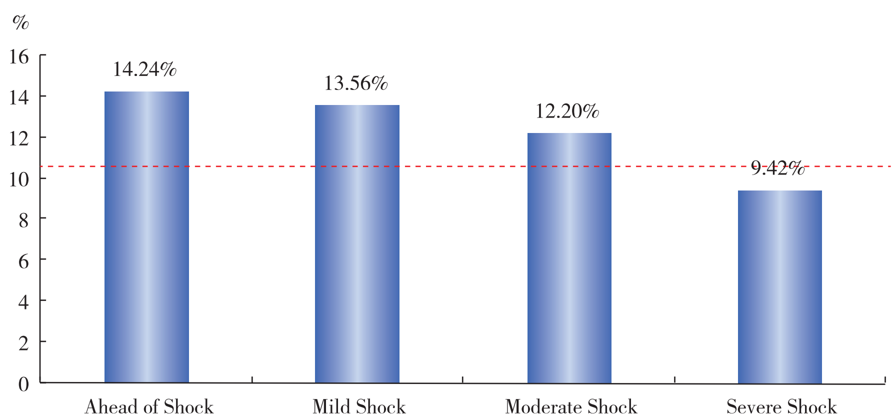
Figure 2.23 Contribution to Changes in the CAR



2. Solvency Tests based on Sensitivity Analysis

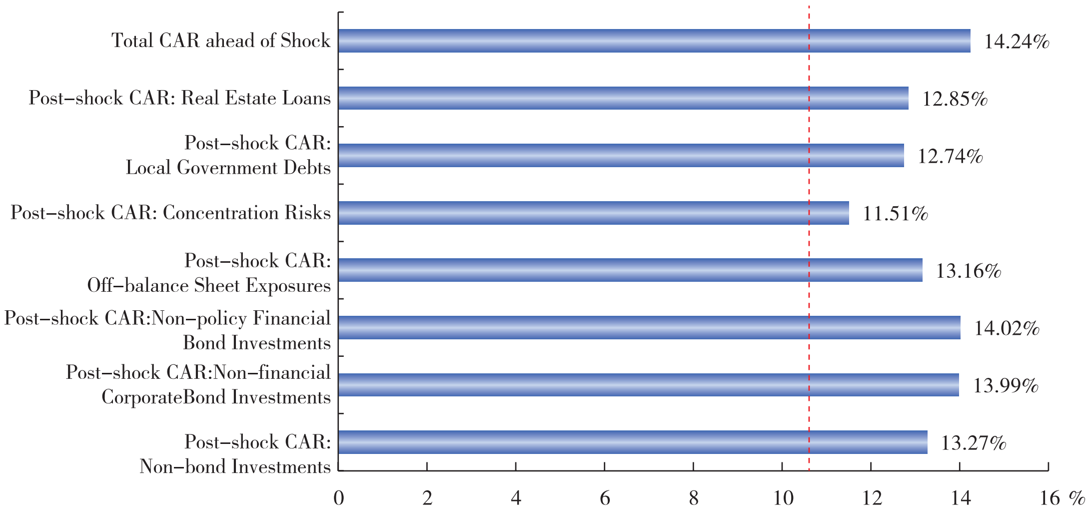
The banking system is generally sustainable to credit deterioration. As of end-2018, total loan balance of the 1 171 banks amounted to RMB 103.72 trillion, with a NPL ratio of 1.7 percent. Against the mild shock, the average CAR of the tested banks would decrease from 14.24 percent to 13.56 percent, a drop of 0.68 percentage point. Against the moderate shock, the average CAR of the tested banks would decrease by 2.04 percentage points to 12.20 percent. Against the severe shock, the average CAR of the tested banks would decrease by 4.82 percentage points to 9.42 percent (Figure 2.24).

Figure 2.24 Solvency Tests based on Sensitivity Analysis



Attention should be paid to risks embedded in certain key areas. As revealed by the results of solvency tests based on sensitivity analysis, concentration risks, local government debts, real estate loans and off-balance sheet businesses give rise to risk concerns. If concentration risks deteriorate in the most severe way, the CAR of the 1 171 banks would decline from 14.24 percent to 11.51 percent, with a drop of 2.73 percentage points. Against the most severe credit deterioration in local government liabilities, the CAR of the tested banks would drop by 1.5 percentage points to 12.74 percent. Against the most severe credit deterioration in real estate loans, the CAR of the tested banks would drop by 1.39 percentage points to 12.85 percent. Against the most severe credit deterioration in off-balance sheet exposures, the CAR of the tested banks would drop by 1.08 percentage points to 13.16 percent (Figure 2.25).

Figure 2.25 Results of Solvency Tests based on Sensitivity Analysis in Key Areas(severe shocks)



III. Overall Results of Liquidity Stress Tests

Banks' resilience against liquidity risks should be further improved. Liquidity tests were undertaken to assess the capacity of banks to withstand funding pressures within a 7-day, a 30-day and a 90-day period respectively. In adverse scenario and severely adverse scenario, 90 banks and 159 banks fail the tests, accounting for 7.69 percent and 13.58 percent of the total sample, respectively. Under the severely adverse scenario, 10 among the 30 large- and medium-sized banks have liquidity shortfalls after all eligible high-quality liquid assets are depleted.

Management of off-balance sheet businesses should be strengthened for some individual banks. The liquidity tests enlarged coverage to off-balance sheet exposures[①], and applied more prudent run-off rates than those in the LCR framework, over 10 times of the LCR run-off rates for some exposures. The results indicate that several banks that fail the tests have a large scale of off-balance sheet exposures. Such banks should be cautious of the unexpected consequences caused by cash outflows of contingent liabilities in extreme circumstances, and improve their management of off-balance businesses.

① E.g. the undrawn credit facilities or liquidity facilities that cannot be unconditionally withdrawn, credit facilities or liquidity facilities that can be unconditionally withdrawn, letters of guarantee, letters of credit, and other trade financing instruments.

Special Topic 5 Transition of the Personal Insurance Sector Faced with Challenges

Since the reform and opening-up, China's insurance sector has achieved substantial development. In 2018, premium revenue of China's insurance sector was the second largest in the world, next only to that of the U.S. Personal insurance is the primary type of insurance in China. In 2018, the insurance sector realized premium revenue of RMB 3.8 trillion, in which RMB 2.63 trillion was attributed to personal insurers, a share of 69.2 percent. Having developed rapidly in recent years, the personal insurance of China is faced with some challenges and currently in the transitional stage of "returning to its fundamental role of protection".

I. Transition Is Required for the Healthy Development of China's Personal Insurance

Since 2012, a reform has been led by the insurance sector to liberalize the use of funds and the rate of premium, which has resulted in improved investment capability and greater autonomy over product pricing and investment of insurers. Scope of fund usage has constantly expanded to cover multiple areas including real estate, equity, growth enterprise board, preferred stocks, venture capital funds, trust plans and financial derivatives, which is basically in line with the international practice. The cap on the assumed interest rates of general insurance and participating insurance and on the assured interest rate of universal life insurance has been removed. The personal insurance sector entered a new development stage. From 2012 to 2017, personal insurers achieved an average annualized growth of premium at 21.2 percent and the number of insurers increased from 68 to 85.

Problems emerged during this fast development of the personal insurance, mainly the overly rapid growth of the short- and medium-term universal life insurance products with high current prices, and a severe mismatch on their balance sheets. From 2013 to 2016, the incremental amount in the policyholders' investment contracts with personal insurers stemmed from universal life insurance with high current prices had an average annual growth of 54.6 percent, and in 2016 alone, the written premium of personal insurers amounted to RMB 3.42 trillion, in which the incremental amount in the policyholders' investment contracts with personal insurers reached RMB 1.19 trillion, accounting for 34.8 percent. For as much as over 10 small- and medium-sized insurers, their universal life insurance with high current prices took up more than 50 percent of their written premium, and for a few insurers, this figure went as high as 95 percent or above. Although the designed term of those products was 5 to 10 years, their actual maturity was often 1 to 3 years and some were as short-lived as a few months, which meant a very high cost. To support the high cost, some insurers resorted to maturity mismatch. For instance, they would invest most of the money earned from sales of high current price products into alternative investment projects such as equity assets and long-term real estate, or into circulated stocks of listed companies and large-scale acquisition overseas. And a few insurers use insurance funds illegally to inject capital to themselves and make circulated investment or mendacious capital contribution, resulting in huge potential risks.

To address issues including the excessively high proportion of short- and medium-term universal life insurance with high current prices in personal insurance sector, heavy focus on the role of investment rather than protection, severe mismatches on the balance sheet and high liquidity risks, the insurance regulator has strengthened supervision to facilitate the return of the personal insurance to its fundamental role of providing protection. Since 2016, regulators have issued a series of documents including the *Notice on Regulating Short- and Medium-term Personal Insurance Products*, the *Notice on Further Enhancing Regulation of Personal Insurance*, the *Notice on Further Improving the Actuarial Mechanism of Personal Insurance* and the *Notice on Regulating Product Design and Development of Personal Insurance Companies*. These documents collectively require that the annual premium revenue of short- and medium-term products of insurers shall be controlled within no more than 2 times of the greater of the invested capital and the net assets of the latest season of the company, that short- and medium-term products, if exceeding the required size, shall be squeezed in size year by year, and that an insurer, who has a size of short- and medium-term products exceeding certain limit, shall not be allowed to set up new branches within a year. It is also specified that insurers are forbidden to design universal life insurance products in such forms as accessory insurance.

Since 2017, the insurance regulator has issued the *Notice on Further Enhancing Regulation of Insurance Fund Investment in Equity* and the *Measures on the Equity Management of Insurance Companies*. It is required that ex-ante approval apply to the acquisition of listed companies by insurers, that the total book value of equity assets of an insurer should not be higher than 30 percent of the company's total assets by the end of last quarter, and that acquisition of listed companies jointly by insurers and non-insurance persons acting in concert is prohibited. Moreover, activities of investment managers entrusted to manage insurance funds are further regulated and supervision of overseas investment is enhanced. In early 2018, the amended *Measures on the Equity Management of Insurance Companies* was released by the insurance regulator to strengthen supervision of the conduct of shareholders by specifying that shareholders with misconduct will be faced with measures including transfer of shares held, revocation of administrative approval and prohibition to invest in insurance sector.

With the release of the above regulations, the business size of short- and medium-term personal insurance shrank significantly and preliminary progress was achieved for the transition of the personal insurance sector. The incremental amount in the policyholders' investment contracts with personal insurers in 2017 registered RMB 589.2 billion, decreasing by 50 percent than the previous year, and a few insurers saw a drop of more than 90 percent. The incremental amount in the policyholders' investment contracts with personal insurers (excluding two institutions in resolution) in 2018 increased by a mere 5.3 percent. Activities such as investing in circulated stocks of a listed company and illegal capital injection of shareholders declined greatly.

II. Challenges for the Transition of Personal Insurance

1. Premium Growth has Slowed Down for Lack of New Growth Points

Against the background of converting from old development model to a new one, personal insurers did not kick off with a good start in 2018, as the premium in January plunged by 25.5 percent y-o-y and that of the first quarter shrank by 16.82 percent. The total premium revenue of 2018 realized a y-o-y growth of mere 0.85 percent.

With an increasing demand for health care and medical service and an aging population, consumers have held great expectations on commercial health insurance and commercial endowment insurance, which are well-positioned to become a new growth point for personal insurance industry. Although premium of health insurance and endowment insurance grew rapidly in recent years, with premium of commercial health insurance expanding by more than 8 times from 10 years ago and premium of endowment annuity insurance growing by an average annualized rate of more than 20 percent, it is still hard for them to drive the rapid growth of personal insurance industry as a whole because of their relatively small base.

2. Service Quality and Operation of Personal Insurers Need Further Improvement

First, highly homogenous products could not meet consumers' demands. Many personal insurers provided products that, though bearing different names, have the same core terms and usually only have few flagship products (for the 17 personal insurers, the premium of their top five products accounted for more than 90 percent of their total premium revenue). The limited products are far from meeting the demands of the public for health and old-age care. There are only tens of millions of effective long-term endowment insurance policies. In 2018, even though claim payment of health insurance took up over 3 percent of the total national health expense, the proportion is still far below that of developed countries.

Second, sales and claim payment service need to be brought in line with regulatory rules. In terms of sales, some personal insurers exaggerate the function of insurance coverage and returns of their products and made inconsistent expressions in contract terms; some fail to explicitly inform clients of the term of insurance, consequences of delinquent payment of premium, losses of contract break-off, etc.; and some online products engage in bundle sales such as compulsory or default checkbox mode. In terms of payments on clients' claims, some personal insurers have only limited physical outlets, make unreasonable requests for document submissions, set up a complicated claim procedure or involve prolonged waiting time for payment. The mediation mechanism for disputes over sales and claim payment is not well established, making it difficult to give timely solution to problems.

Third, small- and medium-sized insurers lack competitiveness. Small- and medium-sized insurers are faced with common problems such as weak technological capacity, insufficient database and lack of professionals. As a result, it is hard for them to develop differentiated business strategies compatible with their distinctive features. Many focused on developing products that would deliver quick profits and are easily scalable, but are low in technological quality and highly capital consuming. Or they just copy large insurers in operation and engage in homogenous competition, which would usually result in losses as they are more vulnerable in capital resource and cost control capability. In 2018, the combined net profits of the top 5 personal insurers with highest revenue took up more than 70 percent of the total net profits of the industry, while more than 30 companies experienced losses.

Fourth, risk of spread losses re-emerged. In the early 1990s, China's personal insurers priced products in reference to the interest rate on deposits. The assumed interest rate of policies reached higher than 8 percent and a large number of policies were issued with valid term of more than 20 years. Since then, because of changes of macro economy, returns of insurance funds have declined, resulting in losses of interest rate spread. To attract policyholders, some insurers went on to issue products with the assumed interest rate as high as 4.025 percent in 2018. Given that the return of insurance funds of that year was only 4.33 percent and the downward trend of interest rate, compounded with the increasing volatility in the stock market and dwindling returns of insurance funds, caution is needed in guarding against risks of spread losses.

3. Difficulties in the Development of Channels

First, heavy manpower investment in personal agents is unsustainable. Since the cancellation of qualification test in 2015, the number of insurance salespersons has risen sharply from 3.25 million in 2014 to 8.72 million in 2018. Despite the large pool of salespersons, their qualifications vary greatly, with a low per capita production and high drop rate. The model of relying on the growing number of salespersons to boost premium revenue is no longer sustainable.

Second, the banking-postal channel is of low value and high cost. To build up a marketing team requires great input in resources and time and the effect is slow to show. Because of limited resources, small- and medium-sized insurers sell products mainly through the banking-postal channel, which could quickly generate premium revenue. But products sold through such channel are mostly wealth management products with low inner value, which has made little contribution to improving the quality of insurance business. Since regulatory tightening, contribution from the banking-postal channel plunged significantly. In 2018, premium revenue from banking-postal channel accounted for 30.59 percent of the total premium, dropping by more than 10 percentage points compared with that in 2017. In addition, the issue of illegitimate payment of service charges by insurers to attract clients under the banking-postal channel is acute, leading to higher costs for the insurers.

Third, capability of direct sale is insufficient. Although personal agents and banking-postal channels are the primary sales channels of personal insurers (the two contributed about 90 percent of the premium revenue of personal insurers), these two are both the model of "insurer + agent + clients" and personal insurers lack direct knowledge of clients. In recent years, insurers have tried to enhance direct sale capability by focusing on telephone-based marketing, online marketing and outlets, but the results are below expectation. In 2018, premium revenue from direct sale rose by 14.9 percent y-o-y but only took up 7.67 percent of the total premium of personal insurers.

4. More Policy Support is Needed.

China has promulgated a series of policies in recent years to support the development of the personal insurance sector. Health insurance that enjoyed preferable tax policy and endowment insurance with deferred tax were launched, but the development of both has not been as good as expected. By the end of 2018, the accumulative premium revenue of preferable-tax-based health insurance was RMB 940 million, taking up only 1 in a thousand of that of commercial health insurance. 16 insurers offered deferred-tax-based endowment insurance, with a premium revenue of only RMB 70 million. More supporting policies are needed to expand coverage of preferable tax policies, facilitate procedure of transactions and help insurers do better in cost control and management.

III. Policy Recommendations on Promoting Transition of China's Personal Insurance Sector

Promoting the development of personal insurance is conducive to improving people's well-being, building a multi-tiered medical and old-age care system and providing long-term financing support to the sound and healthy development of the capital market. With China's changing demographics, accumulation of social wealth and the increasing demand for a healthy lifestyle, there is great prospect for personal insurance industry. Moreover, the downward economic pressure that China is faced with now would nonetheless raise risk awareness among the public and stimulate demand for insurance. Next, the personal insurance sector should take the opportunity and strive to improve clients' satisfaction and business quality and pursue greater development, so as to meet people's daily demand and serve real economy.

First, accelerating transition and development. Personal insurers should quit the role of wealth management and return to the provision of protection against risks, pursue value instead of business scale, enhance corporate governance, avoid improper intervention of shareholders and prevent companies from chasing after quick success and instant benefits. It is important for personal insurers to strengthen application of new technologies, conduct in-depth market studies, identify target clients based on the features of the company's business and channels, categorize clients, dig deeper into the needs of clients and make customized and differentiated product strategies accordingly. Insurers should develop products aimed at providing protection, improve product protection responsibility, product value and claim repayment services, and promote integration of personal insurance with areas such as health management, medical service and old-age care to cultivate new growth points.

Second, promoting reform of sale channels. In terms of personal agent channel, insurers need to abandon the simplified strategy and adopt the notion of providing products of "top-quality", improve professional skills of salespersons and train them into wealth management consultants who actively serve clients' needs, so as to improve client satisfaction and per capita production of salespersons. In terms of the banking-postal channel, it is crucial to strengthen in-depth cooperation with banks and make full use of automatic banking, online banking, mobile banking, etc., to provide insurance service to bank clients. Insurers should enrich types of products, change payment method from lump sum to installment, transform product type from wealth management to risk protection, and improve business value.

Third, strengthening policy support. It is essential to enhance top design to provide stronger policy support to the transition of personal insurance sector. For instance, a comprehensive evaluation of the operation and pilots of preferred-tax-based health insurance and deferred-tax-based endowment insurance should be conducted to analyze current challenges and obstacles. Tax preference should be strengthened and more policyholders should be covered. Procedures for insurance subscription and tax refund should be streamlined to facilitate deduction of tax preference. Integration and connection between public hospitals and insurers should be realized to promote the comprehensive reform and development of commercial health and endowment insurance.

Fourth, actively serving the real economy. Personal insurance funds are a stable source of funding with long maturity and large size, and by reference to national development strategy, they can play a role in supporting key projects in the form of equity or liability investment, and thus contributing to the growth of the real economy.

Special Topic 6 Stress Testing on Liquidity Risk of Publicly Offered Funds

The spillover from liquidity risks of asset management products has been growing over recent years, as the asset management sector grows and financial institutions become increasingly interconnected. To strengthen risk prevention of the publicly offered fund sector and monitor risks in the financial system in a more scientific and forward-looking manner, the PBC conducted a liquidity stress test on publicly offered funds in 2018 to assess their liquidity risk management capacity.

I. Stress Test Profile

Participants. 4 851 existing publicly offered funds as of end-2018 were selected for the test.

Test model. The test was designed to assess the capacity of participating publicly offered funds for meeting redemption needs by observing their liquidity gaps in times of redemption under different stress scenarios. Net redemption rate was selected as a proxy for liquidity shocks to publicly offered funds and a simulation was made on potential redemption needs under different stress scenarios by using historical subscription and redemption data. Assets held by publicly offered funds were classified into 13 types, each given a weight based on how liquid it is. The liquidity-weighted assets were calculated for each fund by using their balance sheet data at end-2018 with deduction of liabilities occurring from pledged financing and fees charged in investment activities and daily operation. The fund will be considered to have passed the test if its net liquidity-weighted assets meet redemption needs under stress scenarios.

Stress scenarios. Depending on their investment assets and strategies, publicly offered funds are categorized into 20 types, including stock funds, passive index funds and medium- to long-term bond funds, with varying historical net redemption rates for each fund. Calibrated to its specific subscription and redemption data, each fund is tested under two scenarios, i.e. mild and severe redemption shocks, to find out its net redemption rates of a 10% and 5% confidence level respectively (Table 2.3).

Table 2.3　Redemption Shocks under Different Stress Scenarios

Type of Funds	Mild stress scenario	Severe stress scenario
	Net redemption rate (%) VaR(0.1)	Net redemption rate (%) VaR(0.05)
Stock funds	29.67	45.64
Passive index funds	31.21	45.8
Enhanced index funds	33.14	51.52
Stock hybrid funds	22.21	33.82
Balanced hybrid funds	12.79	23.03
Bond hybrid funds	43.59	66.55
Flexible asset allocation funds	44.61	68.98
Medium- to long-term bond funds	48.26	69.25
Short-term bond funds	56.2	73.09
Primary bond hybrid funds	42.48	56.46
Secondary bond hybrid funds	45.52	60.33
Passive index bond funds	48.3	68.1
Enhanced index bond funds	30.82	67.46
Money market funds	49.56	67.17
Equity long/short funds	47.14	61.89
Commodity funds	38.99	58.76
International (QDII) stock funds	29.58	44.3
International (QDII) hybrid funds	25.29	40.31
International (QDII) bond funds	33.03	45.86
International (QDII) alternative investment funds	23.11	33.11

Source: the PBC.

II. Findings

Stress test results indicate overall strong liquidity risk resilience in publicly offered funds in China. All participating funds passed the test under the mild stress scenario, while 113 funds failed the test under the severe stress scenario, accounting for 2.33 percent of the total.

By fund type, bond funds are relatively less resilient to liquidity shocks. Under the severe stress scenario, the medium- and long-term bond funds have the highest number of failures at 73, while short-term bond funds have over 10 percent of its total participating type failing the test (Table 2.4).

Table 2.4 Stress Test Results: By Type

Types of funds	Number of participating funds	Number of funds that failed		Failing funds as a percentage of its type(%)	
		Mild	Severe	Mild	Severe
Stock funds	287	0	0	0	0
Passive index funds	469	0	0	0	0
Enhanced index funds	79	0	0	0	0
Stock hybrid funds	610	0	0	0	0
Balanced hybrid funds	29	0	0	0	0
Bond hybrid funds	217	0	9	0	4.15
Flexible asset allocation funds	1 318	0	12	0	0.91
Medium- to long-term bond funds	858	0	73	0	8.51
Short-term bond funds	32	0	4	0	12.5
Primary bond hybrid funds	95	0	1	0	1.05
Secondary bond hybrid funds	280	0	11	0	3.93
Passive index bond funds	39	0	2	0	5.13
Enhanced index bond funds	2	0	1	0	50
Money market funds	371	0	0	0	0
Equity long/short funds	17	0	0	0	0
Commodity funds	9	0	0	0	0
International (QDII) stock funds	64	0	0	0	0
International (QDII) hybrid funds	34	0	0	0	0
International (QDII) bond funds	22	0	0	0	0
International (QDII) alternative investment funds	19	0	0	0	0
Total	4 851	0	113	0	2.33

Source: the PBC.

Special Topic 7 Risk Analysis of the Private Fund Sector and Recommendations for Development

In recent years, the private fund sector has seen rapid development in China, playing an important role in serving the real economy, supporting innovation and entrepreneurship, and increasing fund supply in the securities market. However, inadequate legal system, limited regulatory resources, weak base for regulated operation and lack of sophisticated investors have also given rise to risk events in the private fund market in the last few years, some of which merit serious attention.

I. Development and Status Quo of the Private Fund Sector in China

Privately-offered funds are investment funds that raise money from targeted investors through non-public offering and invest in targeted areas. When the domestic capital market first took shape in the early 1990s, there were only a small variety of public funds with similar investment strategies, and customized high-end wealth management services were unavailable. To meet diversified needs for investment, investment funds raising money from selected high net-worth individuals came into being, though investors and managers of these private funds were no more than private trustors and trustees. In December 2012, the revised the *Law on Securities Investment Funds* acknowledged the legal status of the private funds by laying down relevant stipulations. Currently, administrative approvals are removed for setting up private fund managing institutions or issuing private funds. The CSRC regulates and supervises the operation of private funds, while the Asset Management Association of China (AMAC) is in charge of registration of private fund managers, filing of private funds and industry self-discipline.

As of end-2018, 24 448 private fund managers had registered with the AMAC, filing 74 642 funds with a total size of RMB 12.78 trillion. Managers of private securities investment funds, private equity funds and venture capitals, and other private funds account for 37 percent, 60 percent and 3 percent of the total respectively. By assets under management, large-sized managers with strong performance comprise a relatively smaller share than those managing assets less than RMB 100 million, who accounts for 69.6 percent of the total. By regional distribution, 78 percent of private funds are registered in the seven regions including Shanghai, Shenzhen, Beijing, Zhejiang (excluding Ningbo), Guangdong (excluding Shenzhen), Jiangsu and Tianjin. By investor base, over 85 percent of investors are natural persons, indicating a lack of institutional investors and long-term funds.

The growth of private funds has provided diversified investment channels for domestic residents and supported growth of the real economy and capital market. Up till now, private securities investment funds have become an important institutional investor in the securities market, playing an active role in increasing market fund supply and supporting stability in the stock market. Private equity funds and venture capitals have played an important role in serving the real economy, facilitating the supply-side structural reform, supporting innovation and entrepreneurship, and alleviating financing difficulties faced by small- and medium-sized enterprises (SMEs). As of end-2018, private funds have invested in 50 300 SME projects with RMB 1.57 trillion of principal invested, and 24 700 projects of high and new tech enterprises with RMB 1.04 trillion of principal invested. Among the first batch of 141 science and technology innovation enterprises that submitted IPO applications on the Sci-Tech Innovation Board, 117 enterprises obtained support from private funds, and 23 out of the first batch of 25 enterprises listed on the Sci-Tech Innovation Board got support from private funds.

Despite significant achievements in the development of private funds, serious issues and risks have emerged in recent years due to the short history of development, lagging legal and regulatory arrangements, and inadequate resources for supervision.

II. Issues and Risks in the Private Fund Sector

Misconducts in fund-raising. Different from public funds which target general investors, private funds are only available to qualified investors as strict restrictions apply including appropriateness of investors, sales procedures and number of investors. However, there are cases where misconducts have been found in fund-raising process by a few private funds in an attempt to quickly accumulate assets under management. These include the splitting and transfer of the rights to yields of private fund products to unqualified investors on Internet distribution platforms, and through pooling and entrustment, sales to unqualified investor to circumvent subscription threshold, which resulted in an accumulative number of investors exceeding that allowed by regulatory rules. Other cases involve misleading or fraudulent advertisement, open publicity and promotion, as well as guarantees on principal and returns. These means of fund-raising distorted the private nature of private funds and covered up potential risks. Some may even engage in illegal fund-raising, causing serious disruptions to market discipline.

Misconducts in investment. As with other asset management activities, private funds are supposed to invest in specific products as strictly stipulated in the contracts. In practice, however, there are a few private funds that carry out investment activities in violation of contract terms, posing high risks to client fund safety and potentially a serious violation of laws. These include, first, the employment of fund pools in disguise. A few private fund managers have mismatches between fund-raising and investment, as they invest part of raised funds in projects stipulated in contracts while using the rest to pay returns on maturing products. This cycle of raising new funds to pay back maturing products has led to accumulation of risks. Second, embezzlement of fund money for related trading and profit tunneling. A few private funds invest the raised money in related enterprises or related projects invested by the actual controlling persons of the private funds, potentially an act of profit tunneling and embezzlement of fund property.

Misconducts in daily operation. Typical examples include inadequate internal control, conducting at the same time business activities unrelated to private funds, failure to update registration or filing in a timely and accurate manner, circumvention of regulation through mis-filing or belated filing, practice of private securities funds without practitioners' licenses, failure to disclose information in consistency with contract terms, and reluctance to cooperate in regulatory inspections, etc. Above misconducts have left investors and regulators ill-informed, covered up potential risks and caused market disruptions, which warrants an overhaul.

III. Policy Recommendations

Strengthening legal basis and improving regulatory requirements. The current *Interim Measures on the Supervision and Regulation of Private Investment Funds* is outdated in many aspects, given the fast development of private funds. Drawing on lessons from the development of the private fund sector, the *Provisional Rules on the Administration of Private Investment Funds* should be finalized as soon as possible to specify eligibility for conducting business, expand regulatory toolkit, intensify penalties, and improve the central and local coordination mechanism for disposing risks of private funds. Efforts should also be made to further clarify applicable accusations and criteria for criminal offence committed by private funds when amending the *Criminal Law of the People's Republic of China* and relevant rules to substantially increase the cost of violations. Institutional arrangements on the regulation of custody and sales of private funds should be formulated to gradually improve the regulatory framework for private fund sector.

Optimizing policy guidance and serving the real economy. Efforts should be made to explore the feasibility of introducing medium- and long-term funds from banks and insurers to invest in private funds, promote a negatively pegged mechanism between release period of shares of listed companies invested by M&A venture capitals and the maturity of its investment, and introduce neutral, fair and long-term investment-favorable tax policies. Measures should be taken to encourage private equity funds and venture capitals to better support national strategy and the real economy, strictly implement national industry policies, help expand financing channels for innovation and start-up enterprises and SMEs, and promote economic restructuring and industrial transformation and upgrade.

Enhancing risk monitoring for better risk prevention and control. Continued efforts should be made to introduce and improve the regulatory information system for private funds, pursue technology-enabled risk monitoring, and strengthen risk warning and prognosis. A regulatory mechanism consisting of off-site and on-site inspections should be put into place to carry out regulatory actions in a more targeted and proactively manner. Efforts should also be continued to properly dispose and resolve major risk events, and a comprehensive risk screening should be followed by risk mitigation and disposal on a case-by-case basis.

Deepening multilateral cooperation and forging synergy in risk disposal. Information on market oversight, tax and judicial actions should be shared and connected with the private fund regulatory information of the CSRC so as to identify risk clues through multiple channels and to enhance risk warning capacity. Joint effort should be made with local governments in cracking down on illegal fund-raising of public deposits and fraudulent fund-raising under the pretense of private funds.

Purifying industry ecology and protecting investors' legitimate rights and interests. Endogenous incentives for compliance and business integrity should be cultivated by leveraging the role of self-disciplinary organizations, giving compliance training, and intensifying caution notice in the form of warning cases and display of regulatory treatment of misconducts. Active efforts should be made to improve literacy on investor eligibility to instill in investors rational investment and awareness of right protection and to encourage investors and practitioners to report misconducts in the private fund sector.

Special Topic 8 Launch of Shanghai Stock Exchange STAR Market and Pilot of Registration-Based Initial Public Offering System

At present, China's economy is in the process of transforming from high-speed growth to high-quality development. With economic rebalancing still underway, the needs of delivering financial services to support the real economy have been rising. Against such backgrounds, the CPC Central Committee and the State Council approved that the Shanghai Stock Exchange (SSE) launch the Sci-Tech Innovation Board (the STAR Market) and start a pilot on the Registration-Based Initial Public Offering (IPO) System, with the aim of cultivating more technologically innovative enterprises and facilitating economic transformation and upgrading. After over seven months of preparation, the STAR Market was officially opened on June 13, 2019, and the stocks of the first batch of 25 companies were listed and traded on July 22. Next, it is important to let the STAR Market play its full role as the trial base of the overall capital market reforms, to explore and improve the stock issuance, trading and exiting mechanisms in the capital market and to make the capital market better serve national strategy and the overall social and economic development.

I. Major Institutional Innovation of the STAR Market

The launch of SSE STAR Market and the pilot of registration-based IPO system is an important measure to implement the strategy of innovation-driven development, to promote high-quality development and to support the plan of building Shanghai into an international financial center and a sci-tech innovation center. It is also a crucial arrangement to deepen capital market reforms, to improve fundamental mechanisms and to activate market vitality. The establishment of STAR Market and the release of relevant innovation mechanisms are conducive to enriching the multi-tiered capital market system, to building a more resilient capital market and to improving the capacity of the capital market to serve real economy.

IPO requirements are more inclusive. The SSE has put forward five sets of standards as requirements set for IPO application, namely "estimated market value + net profits" "estimated market value + revenue + R&D input" "estimated market value + revenue + cash flow" "estimated market value + revenue" and "estimated market value". Any enterprise that manages to meet any one of the above 5 standards is eligible to apply for IPO on the STAR Market. Profitability of an enterprise is no longer a necessary condition. Enterprises with special equity structures and red-chip enterprises are also allowed to get listed on the

STAR Market.

Pricing mechanism of newly issued shares is more market-oriented. Different from the current practices of other boards of A shares in setting the price for newly issued shares which make the price of a new share at 23 times of the P/E ratio of the company directly, the STAR Market adopts a market-oriented pricing mechanism for new shares without a limit on P/E ratio. The issuer and the main underwriter may determine the issuance price based on preliminary inquiry or they may decide on the issuance price based on book-building after having identified the price range as a result of preliminary inquiry. Moreover, inquired institutions are mainly professional institutional investors including securities companies, fund management firms, trust companies, finance companies, insurers, qualified foreign institutional investors and managers of privately-offered funds, which will drive institutional investors to play a role in the price discovery process of newly issued shares.

The trading system is flexible and efficient. The trading system of the STAR Market highlights investor appropriation and market resilience. The STAR Market strictly implements the invest appropriation mechanism and accepts larger volatility of trading prices of stocks. There is no price floor or ceiling for the first 5 trading days and a 20 percent cap on the rise and fall of price will not be executed until the 6th trading day and afterwards. This will help to address the habitual limit-up of newly issued shares and let market price discovery mechanism fully play its role. At the same time, efforts have been made to contain excessive speculation in the secondary market, to allow margin trading and securities lending since the first trading day and to set up differentiated arrangements such as flexible adjustment of the number of shares declared of a single order, so as to mitigate the shock of passive and large-scale transactions to stock prices during trading hours and to promote the market to maintain its self-enabled balance.

Putting into trial the system where sponsors make follow-up investments. For a long time, fraudulent activities in IPOs such as window dressing and fake information disclosure happen from time to time as a result of low cost of illegal activities and poor dispute resolution and compensation mechanisms between issuers and investors. In the pilot of registration-based IPO system, the STAR Market has established a mechanism that requires sponsors to make compulsory investments in 2~5 percent of the newly issued shares with a lock-in period of 2 years, so as to strengthen the responsibilities of intermediaries.

Stricter market exit mechanism is put in place. Instead of simply forcing an enterprise to exit the market after having losses for three consecutive years, the STAR Market sets up a set of financial indicators for market exit with the purpose of precisely eliminating “zombie companies” and “shell companies”. The STAR Market no longer has procedures such as transitional period for market exit or suspension. Listed companies that meet the criteria will leave the market directly, and the procedure has been streamlined. Regulation of exit from the STAR Market is stricter. Activities such as using trade revenue and income from other non-primary businesses to “save the shell” is no longer recognized.

II. Thoughts on Relevant Policies and Suggestions

Many innovative policies adopted by the STAR Market have already been consistent with those adopted in the mature capital markets, yet there are still areas to be further improved. In the next stage, it is suggested that we take the successful launch of the STAR Market as an opportunity to further push forward the following work.

Accelerating the amendment of relevant laws and regulations, and significantly raising the costs of illegal activities in the securities market. Based on the experiences on the amendment of Article 142 of the *Company Law of the People's Republic of China* in October 2018, the *Securities Law* should be amended regarding the punishment terms of illegal activities in the securities market such as fraudulent issuance of stock and fake information disclosure, so as to strengthen the punishment of illegal activities in the securities market. Meanwhile, the *Securities Law*, the *Company Law* and the *Criminal Law* should be amended jointly, so as to establish a law framework of securities market where the rights shall be proportionate with obligations.

Investor protection should be strengthened. It is important to further improve channels for civil lawsuits. With the establishment of the country's first financial court in Shanghai, it might be useful to take it as the opportunity to further explore establishing the class action lawsuit system in China featured with the country specifics, so that small and medium investors can safeguard their rights through legal means, interests of investors can be protected and there will be more deterrence to illegal activities in the securities market. In terms of burden of proof, given that illegal activities in the securities market are often professional, complex and hidden, which make evidence discovery, examination and punishment very difficult, it should be considered, based on the experience of mature markets, to let the defendant to provide proof in order to tackle the above difficulties.

Establishing a dynamic assessment mechanism for STAR Market. In the process of the pilot of registration-based IPO system, relevant institutional arrangements should be evaluated dynamically on a regular basis. Projects in the pilot, once determined to be mature, should be promoted for wider use. As for projects that require further improvement, they should be optimized based on results of the pilot so as to generate experiences that are suited to be replicated and promoted.

Special Topic 9 Risk Analysis of the Bond Market Defaults and Policy Response

The materialization of bond default risks intensified in 2018 under the influence of multiple factors. In order to avoid the contagion of individual bond default risks, relevant authorities have responded in a proactive manner and taken a comprehensive set of policy measures in ensuring stable functioning of the bond market. In 2019, a large scale of corporate credit bonds will be due for repayment, and the bond market continues to face pressure from increasing default risks. Going forward, continued efforts should be made to improve resolution mechanism and judicial relief channels for defaulted bonds, effectively guard against default risks in the bond market and maintain the stable and sound functioning of the market.

I. Overview of Defaults in the Bond Market

Certain enterprises have adopted an extensive business model featuring excessive expansion in favorable macro-economic conditions and a heavy reliance on debt financing, which is accompanied by an accumulation of risks. Against the backdrop of a more severe and complicated domestic and international environment in 2018, downside risk of the macro economy was on the rise, and profitability of enterprises was narrowing with contracted financing channels. In some cases, enterprises encountered difficulties in cash flows, which led to bond defaults.

In 2018, more defaults emerged in the bond market, involving 130 corporate credit bonds by 46 issuers, registering an issuance amount of RMB 124.3 billion, up by 219 percent y-o-y. By sectoral distribution, sectors including general category, real estate, commercial trade and public utilities, etc. have the most defaults. By time distribution, there was a smaller number of defaults in the first half of 2018, compared with a significant increase of defaults in the second half of the year.

Risk appetite in the bond market has been affected by defaults. In terms of interest rates at the time of issuance, the average daily spreads of the one-year and five-year AA-rated medium-term notes to treasury bonds with the same duration in 2018 were 174 and 202 basis points respectively, up by 15.8 and 25.9 basis points y-o-y respectively, indicating widening credit risk premium. In addition, the bond market default risk showed a tendency to spread to other markets. In the case of existing defaults, certain listed enterprises have suffered falling share prices due to bond defaults, with the potential of seeing their pledge financing blow up.

II. Policy Responses

In order to prevent the materialization of the bond default risk from making a dent in market confidence, the PBC and relevant authorities have taken a series of measures to continuously improve the prevention and resolution mechanism of default risks and to effectively maintain stability in the bond market.

First, a prudent monetary policy is in place to create a favorable bond market financing environment. In 2018, the PBC made four consecutive RRR cuts and incremented the MLF operation to provide adequate and sufficient liquidity support to the real economy. In order to stabilize market confidence, structural monetary policies were introduced and innovated, greater financial support was provided to key areas and weak links such as private and small and micro businesses, and the scope of MLF collateral was extended to cover corporate credit bonds rated AA+ and AA. Authorities actively guided financial institutions to increase credit provision, promoted the issuance of perpetual bonds by commercial banks and enhanced the sustainable capacity of commercial banks to support the real economy.

Second, a support instrument for private enterprise bond financing and special bonds for bail-out were established to alleviate financing difficulties of private enterprises. On October 22, 2018, the State Council executive meeting decided to set up the private enterprise bond financing support instrument to help ease the financing difficulties of private enterprises in a market-oriented manner. By the end of 2018, financial institutions have supported 41 private enterprises in issuing debt financing instruments worth of RMB 24.74 billion in the interbank and exchange market by creating credit risk mitigation certificates and credit guarantee tools. Following the launch of the support instrument, the financing of private enterprise bonds improved significantly. In November and December of 2018, private enterprises raised additional RMB 91.24 billion by bond issuance, which reversed the relatively low level of private enterprise bond financing from May to October of 2018. In addition, the exchanges launched special bonds to support private enterprises with good prospects but are temporarily in business distress, and help to alleviate financial difficulties.

Third, supervision of the bond market was enhanced and the market-based resolution mechanism for defaulted bonds was improved. In 2018, the PBC, CSRC and NDRC issued the *Opinions on Further Strengthening the Enforcement in the Bond Market* to establish a unified bond market enforcement mechanism and support the CSRC to impose unified penalties on fraudulent issuance, insider trading and market manipulation. Relevant authorities instructed CFETS, Shanghai and Shenzhen stock exchanges, and the Beijing Financial Assets Exchange to establish a mechanism for defaulted bond transactions, and guided professional investors to participate in corporate restructuring by investing in maturing defaulted bonds, which has helped to provide market-based exits for holders of defaulted bonds and to reduce risk accumulation. At the same time, the NAFMII and Shanghai and Shenzhen stock exchanges further improved provisions concerning investor protection, promoted the effectiveness of the bondholder meeting mechanism and provided investors with more personalized and diversified protection measures. In addition, the exchanges launched a dynamic adjustment mechanism for publicly-offered bond trading and a specific bond transfer mechanism to facilitate the mitigation of risks and protect the legitimate rights and interests of investors.

With the above efforts, the corporate credit bond market has maintained a relatively stable functioning despite increases in bond defaults in 2018, and the scale of financing has increased significantly. In 2018, the corporate credit bond issuance totaled RMB 7.3 trillion, up by 32.7 percent y-o-y; and net financing volume amounted to RMB 2.5 trillion, up by 10.9 percent y-o-y and accounting for 12.9 percent of total social financing. As of end 2018, the unpaid amount of defaulted bonds in China was RMB 146.5 billion, accounting for 0.79 percent of the outstanding corporate credit bonds, which is below international average.

III. Outlook for Bond Market Risks and Policy Recommendations

In 2019, in the context of weakening global growth momentum and complex developments in trade frictions, certain enterprises have experienced a decrease in profitability and decline in internal solvency. Given that the maturing amount of corporate credit bonds in 2019 (including put-backs) is expected to exceed RMB 6.3 trillion, it is necessary to pay close attention to the default risk of the bond market. At the same time, due to facts that previously-announced policies on stabilizing employment, finance, foreign trade, foreign investment, investment and expectations by relevant authorities have come into play and domestic conditions for macroeconomic growth are expected to remain overall stable and then recover, there is no grounds for widespread defaults as the current defaults are scattered in sectors and regions. In general, individual defaults in the bond market are likely to continue in 2019, with enterprises that are excessively dependent on debt financing, especially on short-term debt roll-over, possibly being the main source of defaults during the year.

Either by the objective law of market development or by international experience, defaults are evitable for a maturing bond market, and possible default risks in the bond market and the impact, therefore, should be put in perspective. Individual default events are conducive to improving the credit risk pricing mechanism, speeding up market exit, facilitating economic restructuring and eliminating implicit guarantee. If bond defaults emerge in large scale, however, it could impair market confidence and affect the financing function of the bond market. Therefore, proper policy responses should be put in place, by adopting a market-based approach and the rule of law, to protect the legitimate rights and interests of bond investors and prevent any outbreak of systemic risks triggered by the spread of bond default risks.

Going forward, continued efforts should be made to enhance the policy framework of the bond market, further improve the resolution mechanism of defaulted bonds, improve the efficiency of resolution, and promote the market's capacity in addressing and mitigating risks. First, maintain a sound monetary policy that is neither too tight nor too loose and fulfill its mandate in improving the structure so as to create an appropriate environment for the development of the bond market. Second, continuously improve supplementary policies, guide financial institutions to attach high importance to and actively promote private enterprise bond financing supporting instrument, and promote the incremental expansion of the support instrument to benefit more enterprises. Third, continuously strengthen information disclosure requirements, improve the quality of disclosure, and enhance and specify the arrangements of the bondholder meeting and the trustee mechanisms. At the same time, urge issuers and lead underwriters, accountants, law firms, rating agencies and other intermediaries to perform their duties with due diligence and continue to improve investor protection. Fourth, improve the trading mechanism of maturing defaulted bonds, and guide professional investors to participate more in the resolution of defaulted bonds, so as to improve the efficiency of risk mitigation. Fifth, dredge the judicial relief channels for bond defaults to facilitate the settlement of issues including the litigation status of the lead underwriters or the trustees and the judicial jurisdiction of bond disputes, and improve expertise in hearing cases and the efficiency of the bankruptcy reorganization process.

Special Topic 10 A Sound Financial Regulatory Framework for the Healthy Development of Fintech

The Fintech boom in recent years, including the leverage of big data and artificial intelligence technologies in providing innovative financial services, and the research to issue digital currencies, as a result of a broader merger between financial services and technology, has raised the common question of how to properly balance financial safety and innovation for national regulatory authorities considering its profound implications on the financial services industry and the wider economy. The growth of Fintech in China, while remarkable as it allows us to gain some global competitiveness in several market segments, has nonetheless been accompanied by the creation and exposure of risks along the way. Going forward, efforts are needed to closely follow global Fintech trends and accelerate the strengthening of the current regulatory framework with innovative regulatory models and tools, based on adapting international best practices in this regard to China's situations. By respecting market discipline and encouraging innovation on one hand, and proactively and effectively mitigating financial risks at the other, we can further facilitate the healthy development of Fintech in China.

I. Fintech Trends

Fintech was defined by the FSB in 2017 as technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets, financial institutions and the provision of financial services. The BCBS identified four categories where Fintech activities are most active: a) payment, clearing and settlement services, such as mobile wallets and digital currencies, etc. b) credit, deposit and capital-raising services, such as online marketplace lending and equity crowdfunding, etc. c) investment management services, such as robo-advice, etc. and d) financial market infrastructures, such as customer identification and authentication, distributed ledger technology and cloud computing, etc.

Fintech evolvement in the last decade is characterised by the emergence of new payment tools and new financial service providers led by tech firms including Internet platforms and telecom firms on one hand, and more active use of automation and decentralization by traditional financial players for higher operational efficiency and better quality of services on the other. There are opinions that some of the financial services currently provided by commercial banks, central banks and certain market infrastructures could instead be offered by new entrants, automated processes and decentralised networks. The recently proposed crypto-asset

Libra by Facebook, for instance, has raised international concerns.

In terms of underlying technologies, the application of computer technologies in a broad range of finance, from payments and settlement, to saving and borrowing, risk management and investment consultation, has reached unprecedented heights. **Artificial intelligence and big data** can analyse the database containing billions of transaction data entries through advanced algorithms to derive characteristics and patterns used to predict behaviours, and facilitate automated decisions. Related applications can automate the trading of financial assets, automate credit scoring and improve regulatory compliance. **Distributed ledgers** have emerged as a key technology supporting multiple applications, with potential benefits in cutting costs, allowing direct business-to-business (B2B) loans bypassing intermediaries and etc. The technology, however, still needs to be further perfected in operability, scalability, storage, privacy protection and security. At the stage of swiftly evolving, distributed ledgers have the potential to transform payments and securities settlement as well as back-office functions. **Mobile devices and the Internet** technologies allow consumers access to a full range of financial services through mobile portals or third-party applications, facilitating online marketplace lending and direct funding of firms, and enhancing financial inclusion. **Developments in cryptography** support the expansion of application scenarios of various technologies.

II. Fintech Developments in China

In the last few years, financial innovation has thrived in China, driven by technological advancement in big data, distributed ledgers, cloud computing and artificial intelligence, etc. and contributed to new businesses from online payments to P2P lending, crowdfunding and robo-advice.

Incumbent financial institutions make use of innovative technologies to grow. One example is to adapt and optimize their business strategies and organizational structures, moving away from the heavy reliance on the ubiquitous presence of physical outlets. While trying to cement their traditional distribution networks, they are also exploring the new frontier of online financial services through diversified portals like mobile applications, WeChat official accounts and direct online marketing, etc. A second example is to improve efficiency of financial service provision with online-based innovative products and services, including supply chain finance, facial recognition and authentication for making deposits and withdrawals, and online funding for micro and small businesses. Another example involves better operational efficiency through the employment of new technologies like artificial intelligence, as in the case of robo-advice, and blockchain-based payments and settlement, credit management and asset custody solutions, and smart contracts. This has helped to simplify risk management and reduce opacity.

BigTechs make their way to finance. In terms of license approval, Alibaba and Tencent were granted licenses of the online-based MYbank and WeBank respectively in 2015, pioneering the provision of online-only banking services by getting rid of physical limits on time and space. In terms of the improvement of financial services, mobile payments offered by Internet firms have taken a good share of the retail payment market. Ant Financial offers a range of services from credit information, to cloud computing and asset trading through platforms like Zhima Credit, Ant Financial Cloud and WangJinShe. In terms of partnership, established financial institutions have worked with tech firms through either outsourcing of business operation platforms, or access to the latter's newest artificial intelligence technologies, or the latter's provision of online marketing networks for financial products.

The idea of becoming a financial service provider has been inviting to all kinds of enterprises, though their qualifications vary. Since 2012, certain entry-level Internet-based financial services, typically online marketplace lending and crowdfunding, have mushroomed in China, owing to reasons including a lack of strict entry standards. At its height, there were as many as over 5 000 P2P lenders nationwide. Though their existence served to meet diversified funding and investment needs, some of the platforms were so poorly managed that they later became a growing source of risks. Starting in the second half of 2018 as downside pressures began to mount, over 1 000 P2P lenders have gone bust. Some of the failures have led to outbreaks of risk events, causing a huge damage to industry reputation and jeopardizing social and financial stability. Rectification of such businesses became a consensus of all stakeholders.

III. Challenges Brought by China's Fintech Development

The rise of Fintech in China has contributed to financial inclusion, and played a positive role in facilitating financial transactions, meeting diversified investment and funding needs, improving quality of financial services and enhancing efficiency of resource allocation. These benefits, however, did not come without disruptions and challenges to financial system stability.

Increasing interconnectedness and procyclicality within the financial system, and amplifying the contagion of risks across sectors, markets and regions. Fintech has fostered closer interconnectedness among financial institutions, tech firms and financial market infrastructures, underscoring the chance of a potential breakdown anywhere in the linkage to be quickly amplified and evolve into a systemic risk. In addition, financial automation and artificial intelligence utilized by financial institutions, while set to cut costs, can lead to higher volatility in financial market prices due to reliance on similar underlying algorithms and trading strategies, and further multiply shocks to the financial system, resulting in increased procyclicality.

Undermining the effectiveness of macro-control policies. First, complexity of financial statistics is increased as more innovative products appear on the market, especially when such products and services involve maturity transformation, which could obscure the transmission of the monetary policies. Second, the less-regulated online lending may easily channel funds to those over-capacity or restricted sectors, undermining credit policies. Third, given their ownership of infrastructures including payment and settlement, credit information and financial asset trading platforms, certain tech firms are about to exert an influence on the rule-making, entry or exit standards of relevant sectors.

Bringing challenges to existing financial regulation. Taking advantage of the relatively loose regulation on Internet firms, certain Internet-based financial services operate outside the perimeter of financial regulation, or engage in arbitrage by making use of regulatory gaps under the sectoral regulation regime. For instance, by launching financial subsidiaries or investing in established financial institutions, certain BigTechs have emerged as de-facto financial conglomerates while the conglomerates per se are not directly regulated. Worse still, certain tech firms aim to secure financial licenses for the sake of turning them to a venue of seeking high returns on financial investments, straying from supporting the real economy.

Threatening information security. While helping financial institutions better know their customers, Fintech may raise social concerns like overcollection, abuse and leakage of data. More importantly, as vast volumes of consumer data are in the hands of several service providers, their information monopoly, in case of leakage or suffering cyber-attacks, may pose a threat to national data security.

IV. International Practices in Regulating Fintech

Though there haven't been any internationally acknowledged standards or frameworks for Fintech regulation, practically major economies have been closely watching Fintech evolvement to adapt and adjust their existing regulatory frameworks accordingly, in an effort to strike a proper balance between innovation and risk prevention.

In terms of Fintech laws and regulations, authorities are keen to strengthen the current legislative framework with an emphasis on consumer protection. The OCC has taken steps to establish a regulatory framework of Internet finance, while regulators at both federal and state levels have been drafting regulatory rules on Internet-enabled financial activities. The EBA published its roadmap on Fintech, accompanied by a public hearing on the objectives and scope of Fintech regulation and supervision. The UK regulator issued the *FCA's regulatory approach to crowdfunding over the internet, and the promotion of non-readily realisable securities by other media*, making explicit requirements on the disclosure and consumer protection practices of online lending platforms.

Regulatory frameworks in most cases feature functional regulation and a

licensing mechanism, to ensure an effective supervisory coverage. The fact that Fintech hasn't changed the fundamental landscape of financial markets nor legal relations of financial transactions has allowed jurisdictions to stick to the existing framework, under which Fintech-related businesses are regulated by their category of business types. This is an effectively functional regulatory framework and the aim is to ensure the comprehensive coverage. For businesses that can be readily categorised and develop rapidly such as online lending and crowdfunding, the common approach to bring them under the regulatory remit is to grant licenses. For businesses that cannot be readily classified and are underdeveloped, the more common practice is to resort to self-discipline while carefully assessing their growth before deciding the regulatory approach. In some cases, authorities have adapted their licensing mechanisms. The OCC, for example, has provided Fintech firms with national banking licenses; and Reserve Bank of India granted limited payment bank licenses to entities in 2016. In other cases, some jurisdictions have extended the regulatory perimeter to cover third-party service providers by mandating regulators to conduct regular reviews and risk assessment of these service providers.

The adoption of regulatory tools points to a focus on innovation facilitation and a balance between risk control and innovation. Major economies have developed innovative regulatory tools, examples of which include regulatory sandboxes, innovation hubs and innovation accelerators, etc. **Regulatory sandbox** was first introduced by the UK FCA in 2015 and pitched at innovative financial products and services. The simplified entry standards and tailored processes would allow Fintech start-ups to hold a limited license and test their business models in a real or simulated environment (Table 2.5). **Innovation hub** refers to mechanisms or venues regulators have set up to provide guidance or support to regulated or non-regulated entities, and **Innovation Accelerator** refers to funding or technological cooperation arrangements between Fintech service providers and relevant government agencies.

Table 2.5 The Sandbox Approach in Selected Jurisdictions

General Information	Jurisdiction	Australia	Canada	Hong Kong SAR, China	Malaysia	Singapore	Switzerland	United Arab Emirates	United Kingdom
	Regulator	ASIC	CSA	HKMA	BNM	MAS	FDF	ADGM	FCA
Type of Applicants	Authorized/ Licensed/ Incumbents	×	√	√	√	√	√	√	√
	Unauthorized/ Unlicensed/ Startups	√	√	×	√	√	√	√	√

(concluded)

General Information	Jurisdiction	Australia	Canada	Hong Kong SAR, China	Malaysia	Singapore	Switzerland	United Arab Emirates	United Kingdom
	Regulator	**ASIC**	**CSA**	**HKMA**	**BNM**	**MAS**	**FDF**	**ADGM**	**FCA**
Benefits for Businesses	Regulations relaxed or waived	×	√	√	√	√	×	√	√
	Licensing requirements relaxed or waived	√	×	×	×	×	√	×	√
	Clarification on regulatory expectations	×	√	×	×	×	×	×	√
Consumer Protection Mechanisms	Limits on customers, value and/or duration	√	×	√	√	√	√	√	√
	Additional reporting obligations/closer monitoring	√	×	√	√	√	×	√	√
	Additional consumer protections/risk mitigation	√	√	√	√	√	√	√	√
	Specified regulations that cannot be waived	√	×	×	×	√	√	×	√

Source: *Fintech and Financial Services: Initial Considerations*, IMF staff discussion note.

Regulatory coordination aims to ensure better regulatory consistency and international cooperation, as well as to address regulatory gap and arbitrage. A number of economies have proactively carried out bilateral cooperation on Fintech regulation, to enhance information sharing and regulatory coordination. International organizations have also actively promoted research and standard-setting in this regard, and encouraged experience sharing and coordinated actions through the setup of working groups and issuance of guidance or working papers.

In terms of capacity building, emphasis has been put on developing Regtech and Suptech for the benefit of regulatory efficiency. Regtech is the application of financial technologies to enhance reporting and compliance by incumbent institutions or tech service providers, while Suptech is technology-enabled innovation adopted by regulators. Adoption of both technologies are believed to help achieve better compliance by the regulated entities, as well as facilitate early identification and mitigation of risks and increase regulatory efficiency on the part of regulators. For instance, the Bank of England is taking a major step to open its real-time gross clearing system to distributed ledger networks; Bank of France is experimenting with the project to improve the interbank system using the blockchain; and the Austrian central bank has proposed a new approach which allow banks to deliver all reporting data in the form of standardized data cubes.

V. Policy Recommendations

Progress has been made in strengthening the Fintech regulatory framework by the Chinese government in recent years. In July 2015, the *Guiding Opinions on Promoting the Healthy Development of Internet Finance* was jointly released by ten ministries including the PBC, the Ministry of Industry and Information Technology, and the Ministry of Public Security, etc. Later in December of the same year, National Internet Finance Association, or NIFA was established. In April 2016, the *Implementation Plan for the Special Rectification on Internet Finance Risks* was issued by the General Office of the State Council. In August 2017, the NetsUnion Clearing Corporation was established to give third-party payment providers such as Alipay, Tenpay and JDpay access to the centralized clearing and settlement system. In addition, financial authorities have also developed rules covering other new activities including third-party payment, P2P lending, crowdfunding and online insurance. Going forward, by taking international practices and domestic development of Fintech into consideration, authorities should take further actions to strengthen the existing framework, push ahead with pilot projects for Fintech innovation, implement functional regulation and develop Suptech, in an effort to promote market discipline and innovation while addressing financial risks in a proactive and effective manner.

Improving the existing legal and regulatory frameworks, and strengthening consumer protection. First, necessary rules should be formulated on Fintech firms and emerging activities such as Internet finance, to clearly define business scope, entry standards, regulatory requirements and legal responsibilities applicable to them. Second, the scope of regulation and supervision should be extended to cover those Internet-based financial holding companies and financial market infrastructures controlled by tech firms, as well as third-party technology service providers. Regulatory rules should be applied to the above market participants to ensure the safety of financial markets. Third, feasibility studies would be conducted on the application of existing financial consumer protection mechanism to Internet-based financial activities, to shed light on relevant risk compensation and risk resolution arrangements.

Implementing functional regulation in the principle of substance over form, and keeping in place the licensing regime. This calls for a clear understanding of the financial nature of technological innovation-enabled financial businesses, and regulatory consistency in granting institutional licenses and business licenses. Anyone who engages in financial activities is required to obtain regulatory approval subject to the specific business line, and is forbidden to carry out depositing/lending, insurance, securities, asset management, payment and settlement, credit information or asset trading activities without permission. Any violations should be dealt with seriously, with misconduct penalties heavily levied.

Promoting pilot projects for financial innovation, and facilitating the healthy development and better regulatory compliance of Fintech activities. Authorities should encourage financial institutions and tech firms, considering the characteristics of our financial markets, to carry out innovative financial businesses, products, processes, and models under the condition of legal compliance. Measures should be taken to ensure that technological innovation-enabled businesses are growing in line with regulatory requirements while playing a role in improving efficiency of the financial sector to serve the real economy.

Developing Suptech in a steady manner, and building regulatory capacity for better analysing and safeguarding against systemic risks. Financial authorities should closely follow the dynamics of Fintech trends and risk profiles, and enhance regulatory efficiency with an emphasis on the risk monitoring and analysis of Fintech firms and activities that would have a significant impact on the broader financial system. Authorities should also highlight the use of big data in financial supervision, as well as the adoption of emerging technologies in building a comprehensive financial statistical framework, to ensure that systemic risks can be quantified, looked through and monitored.

Chapter III

Macroprudential Regulation

In 2018, the international community continuously improved the macroprudential policy framework. Based on international experiences, China continued to improve the macroprudential policy framework, further enhanced regulatory coordination, strengthened the monitoring and assessment of systemic risks, enriched the macroprudential policy toolkit, and effectively guaranteed the bottom line of allowing no systemic risks to emerge.

I. International Developments on Macroprudential Regulation

1. Building More Resilient Financial Institutions

Improving the regulatory policy framework. At the end of 2017, the BCBS issued the *Basel III: Finalising post-crisis reforms*, which indicated that the core international regulatory framework of post-crisis banking regulatory reform was established. In 2018, the BCBS continued to improve the policy framework, including revising the market risk framework and addressing issues on potential regulatory arbitrage. Meanwhile, the BCBS carried out the regulatory policy development related to benchmark reforms, crypto-assets and sectoral countercyclical capital buffer based on the latest market evolvement.

Evaluating the effectiveness of Basel III framework. Basel III makes a good balance between macroprudential and microprudential regulation, and establishes for global banking sector a regulatory framework consisting of elements like capital quality, liquidity requirement, measurement of risk weighted assets, caps on large exposures, countercyclical management and disclosure, etc. After the finalisation of Basel III framework, the BCBS began to evaluate the reform effectiveness. The evaluation consists of three levels. First, evaluating if a single reform has achieved its intended objectives. The reforms concerning capital, liquidity, leverage and securitization may be covered. Second, evaluating the coherence among different reforms, for instance the coherence between the capital framework and liquidity framework. Third, evaluating broader impacts of reforms to the banking sector and macro economy. The BCBS will decide whether to revise the policy framework based on evaluation results. The evaluation is expected to be completed in 2022.

Promoting the implementation of Basel III. In order to promote the full and consistent implementation of Basel III among member jurisdictions, the BCBS conducts jurisdictional assessments on the implementation progress of its members. The BCBS has so far finished the assessments on capital framework and LCR framework, and is working on the assessments of NSFR and large exposures.

2. Strengthening the Supervision on SIFIs

Updating the list of G-SIBs. In November 2018, the FSB updated the list of G-SIBs based on the end-2017 data. 29 banks were designated as G-SIBs (Table 3.1) and the total number of G-SIBs was 1 less than that in 2017. Groupe BPCE was added to the list, and Nordea and Royal Bank of Scotland were removed from the list. Bank of America moved from bucket 3 to bucket 2 and China Construction Bank moved from bucket 2 to bucket 1. The designated G-SIBs in the annual updated list in every November will be subject to higher capital buffer requirements as from January 14 months later.

Table 3.1 The Updated List of G-SIBs

Bucket (Higher Capital Buffer Requirements)	G-SIBs in alphabetical order within each bucket
5 (3.5%)	(Empty)
4 (2.5%)	JP Morgan Chase
3 (2.0%)	Citigroup
	Deutsche Bank
	HSBC
2 (1.5%)	Bank of America
	Bank of China
	Barclays
	BNP Paribas
	Goldman Sachs
	Industrial and Commercial Bank of China Limited
	Mitsubishi UFJ FG
	Wells Fargo
1 (1.0%)	**Agricultural Bank of China**
	Bank of New York Mellon
	China Construction Bank
	Credit Suisse
	Groupe BPCE
	Groupe Crédit Agricole
	ING Bank
	Mizuho FG
	Morgan Stanley
	Royal Bank of Canada
	Santander
	Société Générale
	Standard Chartered
	State Street
	Sumitomo Mitsui FG
	UBS
	Unicredit Group

Source: *2018 list of global systemically important banks* by the FSB, Nov.2018.

3. Promoting Effective Resolution Regime

Implementing the TLAC requirements steadily. All banks that should comply with the TLAC requirements as from January 2019 have already met or exceeded the standards of 16 percent of the RWA and 6 percent of the leverage ratio denominator. In the past three years, TLAC instruments issued by G-SIBs amounted to around USD 350 billion to 400 billion per year. About two thirds of G-SIBs issued their TLAC instruments out of a non-operating holding company, whereas others relied on statutory and contractual subordination of TLAC instruments. Around 67 percent of TLAC instruments were issued in USD and 19 percent in EUR, whose investor base consisted of asset managers, pension funds and insurers.

Promoting the implementation of the *Key Attributes of Effective Resolution Regimes for Financial Institution*. The implementation status of the *Key Attributes of Effective Resolution Regimes for Financial Institutions (*hereafter referred to as the *Key Attributes)* was uneven among different sectors. The *Key Attributes* was best implemented in the banking sector while the implementation in the insurance and CCP sector fell behind the timetable. As to the banking sector, all the home jurisdictions of G-SIBs have established their resolution strategies and resolution planning frameworks. Further work would focus on the full implementation of TLAC requirements, especially the implementation of internal TLAC requirements, and ensuring that TLAC instruments could be used in bail-in during resolution. As to the insurance sector, most FSB members have not established their resolution regimes for insurers. Only some members have established the assessment frameworks for systemically important insurers and introduced resolution planning requirement, but their resolution tools and powers are still limited. The *Key Attributes Assessment Methodology for the Insurance Sector* will be published in 2020 and member jurisdictions could then reform their resolution regimes for insurers according to it. As to CCPs, most member jurisdictions have not established their resolution regimes for CCPs. In order to facilitate this work, the FSB published the *Financial Resources to Support CCP Resolution and the Treatment of CCP Equity in Resolution* in November 2018, and plans to publish the further guidance in 2020.

4. Keeping on Monitoring the Shadow Banking System

In February 2019, the FSB published the *Global Monitoring Report on Non-Bank Financial Intermediation*[①] *2018* based on the end-2017 data, covering 29 jurisdictions representing over 80 percent of the global GDP. Based on the broad measure, Monitoring Universe of Non-bank Financial Intermediation (MUNFI)

① In late October 2018, the FSB announced through its website that it decided to replace the term "shadow banking" with the term "non-bank financial intermediation" in future communications, since the term "shadow banking" may lead to negative interpretation by the general public.

grew to USD 184.3 trillion by the end of 2017, accounting for about 48.2 percent of total financial assets in participating jurisdictions. Based on the narrow measure, Non-bank Financial Intermediation amounted to USD 51.6 trillion, accounting for 13.7 percent of total financial assets in corresponding jurisdictions, among which the U.S. had the largest narrow measure accounting for 28.9 percent of the total scale, followed by the Euro area (including 8 jurisdictions). China had the third largest narrow measure (USD 8.2 trillion) accounting for 16 percent of the total scale. Thirteen jurisdictions experienced an increase of over 10 percent (including China; Italy; Hong Kong SAR, China etc), and five jurisdictions saw their narrow measure increasing by over 20 percent (Argentina, Brazil, India, Indonesia and Turkey).

5. Promoting Reforms of OTC Derivatives Markets.

The OTC derivatives market reforms moved forward steadily in 2018. As to the end of September, interim higher capital requirements for non-centrally cleared derivatives were in force in 23 of the 24 FSB member jurisdictions, unchanged over the reporting period. 21 jurisdictions had comprehensive trade reporting requirements in force, increasing by two during the reporting period, and the reporting scope and information accessibility kept improving. 18 jurisdictions had in force comprehensive standards/criteria for determining when standardised OTC derivatives should be centrally cleared, an increase of one during the reporting period. In the implementation of comprehensive margin requirements for non-centrally cleared derivatives, 16 jurisdictions had such requirements in force, increased by two during the reporting period. Implementation of the platform trading commitment was least progressed. One more jurisdiction had in force the policy framework, up to 13 in total.

6. Reducing Misconduct Risks

The FSB continued to work on reducing misconduct risks in 2018. In terms of compensation governance, the FSB published the *Supplementary Guidance to the FSB Principles and Standards on Sound Compensation Practices* in March 2018, to link compensation governance to the mitigation of misconduct risks, and published the *Recommendations for National Supervisors: Reporting on the Use of Compensation Tools to Address Potential Misconduct Risk* in November, to guide national supervisors to use compensation tools more effectively. In terms of corporate governance, the FSB published the *Strengthening Governance Frameworks to Mitigate Misconduct Risk: a Toolkit for Firms and Supervisors*, which emphasizes the importance of due diligence, senior management responsibility and corporate culture in mitigating misconduct risks.

7. Others

The international macroprudential policy framework keeps improving and most FSB members have established their dedicated macroprudential authorities. The reliance on credit rating agencies continues to decrease. All of the FSB members have put in place requirements for the registration and oversight of credit rating agencies, and continuous efforts have been made to reduce references to CRA ratings in national laws and regulations. The *International Financial Reporting Standards 9 Financial Instruments* (IFRS 9) published by the IASB came into force in January 2018, which introduced the expected loss model for loan loss provisioning. Besides, the adoption of LEI is further expanded. By the end of 2018, 27 jurisdictions had been authorized to issue LEIs and over 1.34 million entities and individuals had received their LEIs.

II. Major Jurisdictions' Progress in Macroprudential Policies

1. United States

Monitoring and Assessing systemic risks. FSOC published its annual report on December 19, 2018. The report indicated that in 2018, the U.S. economy continued to grow, unemployment experienced a temporary fluctuation, and interest rate increased from the extreme low level since the crisis as a result of the Federal Reserve's continuous tightening of monetary policy. Due to the recent financial regulatory reforms, the U.S. financial sector is more resilient and could bear shocks more severe than that in the 2008 crisis. However, there still exist potential risks, including: cyber risk could cause significant negative impacts on financial institutions; there's an increasing concentration risk in CCPs; potential risks might arise from the transition from LIBOR to alternative benchmarks, which is intended to reduce the reliance on current major benchmarks; large complicated financial institutions may still threaten financial stability potentially; short-term wholesale funding markets are lack of resilience; some unregulated financial activities arise from financial innovation; the quality, collection and sharing of financial data could not satisfy the need of financial regulation and supervision; the leverage of non-financial sector remains at a historical high level; Brexit may cause potential impacts on financial institutions, cross-border trades, financial services and derivatives in the U.S.

Conducting stress tests. The Federal Reserve conducted the Dodd-Frank Act Stress Tests (DFAST) on 35 financial institutions in 2018. In the adverse scenario, the GDP begins to contract in the first quarter of 2018, the growth rate hits its floor of -3.5 percent in the second quarter and returns back to positive in the second quarter of 2019; the disposable income, stock prices and housing prices decrease, and the unemployment rate peaks at 7 percent. Under this scenario, the capital adequacy ratio of tested institutions would fall by 1.4 percentage points and the corresponding losses amount to USD 333 billion. In the severely adverse scenario, the GDP begins to contract in the first quarter of 2018 and reaches a trough of -8.9 percent in the second quarter, and then stablizes and begins to grow in the fourth quarter of 2019; the disposable income, stock prices and housing prices fall by larger magnitude; the unemployment rate rises to 10 percent at the maximum. Under this scenario, the capital adequacy ratio of tested institutions would fall by 2.3 to 3.6 percentage points, and the corresponding losses amount to USD 578 billion. Besides, the Federal Reserve conducted CCAR to 18 financial institutions, whose results indicated that their CET 1 capital adequacy ratio would fall from 12.3 percent to 6.3 percent in the severely adverse scenario.

Improving regulation on financial institutions. Firstly, containing the risk exposure concentration. The Federal Reserve issued a rule on June 14, 2018, which prohibits any U.S. G-SIB from having aggregate net credit exposure in excess of 15 percent of its tier 1 capital to another U.S. G-SIB or a non-bank financial institution supervised directly by the Federal Reserve, or in excess of 25 percent of its Tier 1 capital to any counterparties, and prohibits a bank holding company with consolidated assets over USD 250 billion from having net credit exposure in excess of 25 percent of its Tier 1 capital to a single counterparty. Secondly, relaxing the regulation on small financial institutions. On July 6, 2018 the Federal Reserve issued a statement on the *Economic Growth, Regulatory Relief and Consumer Protection Act* to raise the threshold of bank holding companies and savings and loan holding companies subject to prudential regulation from USD 50 billion to USD 100 billion. The Federal Reserve will increase the threshold to USD 250 billion 18 months after the date of enactment, and bank holding companies with less than USD 100 billion in total assets would be exempted from certain regulatory requirements. Thirdly, improving the risk measurement. On April 17, 2018, the Federal Reserve published a rule on the implementation and transition arrangement of capital requirements, to replace the current credit loss accounting approach with the "Current Expected Credit Losses" methodology and enlarge the coverage of loss provisioning.

2. EU

Monitoring and assessing systemic risks. The ECB published its *Financial Stability Review* in November 2018. The report indicated that the downside risk of global economy increased due to factors like protectionism. Against this backdrop, there are four potential risks that Europe is faced with, including the disorderly increase in risk premiums in international financial markets, debt sustainability concerns, hampered bank profitability and liquidity strains in the investment fund sector.

Improving the macroprudential policy framework. In April 2019, the ESRB published a *Review of Macroprudential Policy in the EU in 2018* to stocktake the development of its macroprudential policy framework and the use of policy tools. As to the policy framework, Spain established its macroprudential authority in 2018 and all the EU members except Italy have their macroprudential authorities in place. As to the policy tools, many members activated CCyB or increased the CCyB rate, some members activated SyRB, and most members adopted macroprudential policy tools to tackle real estate issues, like caps on the debt service-to-income ratio.

Monitoring the shadow banking system.

The ESRB published its shadow banking monitoring report in September 2018. By the end of 2017, the EU shadow banking[①] totaled about EUR 42.3 trillion, accounting for 39 percent of the total EU financial assets and 82 percent of the EU banking sector. The EU shadow banking system shows several characteristics. Firstly, EU shadow banking activities are highly concentrated in terms of regions and sectors. A significant portion of assets is concentrated in a few international financial centres, and investment funds represent about one-third of the EU shadow banking system. Secondly, liquidity risks are rising. Thirdly, the EU shadow banking system is highly interconnected with the banking sector and provides more and more wholesale funding to banks. Fourthly, the reuse of financial collaterals and the use of derivatives and securities financing transactions may raise risks related to procyclicality and leverage.

3. United Kingdom

Macroprudential policy development. The FPC claimed that the overall risks in UK remained moderate except for the Brexit related risks. The credit demand was largely stable, the increase of overall credit slowed down, mortgage credit grew modestly and the corporate risk appetite for credit was relatively high. According to the above judgement, the FPC maintained the UK CCyB rate at 1 percent and stands ready to move the UK CCyB rate in either direction as the risk environment evolves. A cut in the UK CCyB rate to zero could preserve the banks' capacity to lend by around GBP 250 billion.

Stress tests on the banking sector. The 2018 stress tests conducted by the BOE set a more severe scenario than that of the 2008 financial crisis. In the stress scenario, UK GDP falls by 4.7 percent, unemployment rises to 9.5 percent, residential property prices fall by 33 percent, commercial real estate prices fall by 40 percent, sterling exchange rate index falls by 27 percent and the interest rate rises to 4 percent. The test result shows that the UK banking sector is still resilient in the stress scenario. The major UK banks' CET 1 capital ratio after the stress would still be twice its level before the crisis. All participating banks remain above their risk-weighted capital and leverage hurdle rates and would be able to continue to meet credit demand from the real economy. According to this result, the FPC believes that the UK banking sector could remain resilient even if a no deal Brexit occurred.

III. China's Practice in Macro-prudential Regulation

In 2018, China continued to improve the macroprudential policy framework, enhance financial regulatory cooperation, improve the risk monitoring and identification framework, and actively take various macroprudential measures.

① Including all financial institutions except banks, insurance companies, pension funds and CCPs.

1. Further Enhancing Financial Regulatory Cooperation

The FSDC further enhanced its role on inter-agency cooperation. The administration office of FSDC continued to enhance the cooperation of member authorities and pushed forward the following work. Firstly, new members were introduced into the FSDC to enhance the cooperation with the authorities of discipline inspection, public security and justice, and publicity, etc. Thus the FSDC's role on cooperation and decision-making was enhanced. Secondly, according to the overall arrangements of the critical battle against major financial risks, policy measures on containing credit risks in priority areas and shadow banking risks were pushed forward so as to effectively stabilize the macro leverage ratio, improve financial regulation and rectify financial order. Thirdly, the charter of the FSDC administration office was developed to establish the spokesman mechanism and actively guide the market expectations. Fourthly, coordinative efforts were made to ease the difficulties of private enterprises and micro and small businesses to access affordable financing, to explore multiple channels for commercial banks to replenish capital and support the issuance of perpetual bonds, to safeguard the stability of the interbank market so as to support the healthy development of small- and medium-sized banks, and to facilitate reform and development of the capital market.

2. Strengthening the Monitoring and Assessment of Systemic Risks

Continuous efforts were made in promoting the risk monitoring of banking, securities and insurance financial institutions as well as financial markets so that financial risks could be identified and appropriate policy responses could be adopted in a timely manner. Stress tests on 1 171 banking institutions were conducted with more participating institutions compared with the last year. Based on the test results, the PBC made risk warnings to financial institutions to guide them to operate steadily. Rating of financial institutions by the central bank was carried out on a quarterly basis in 2018, covering more than 4 300 financial institutions, so as to evaluate the operation and risk profiles of participating financial institutions scientifically and reasonably. Stress tests were conducted periodically on such securities sector risks as stock pledging by major shareholders of listed companies, liquidity risks of mutual funds, etc. Financial market stress index was used to monitor the risks in the stock, bond, money and foreign exchange markets. Off-site examination and on-site inspection were actively conducted for insurers with the focus on corporate governance, fund utilization and liquidity management. Risk monitoring on large problem firms was continued in order to resolve significant risk events in a timely manner. The analysis of macroeconomic situation, regional financial risks and trends in specific sectors was enhanced.

3. Constantly Improving the Macroprudential Policies

Improving the assessment system of financial institutions. The Macroprudential Assessment (MPA) by the PBC continued to play its guiding role in 2018. The policy parameters were appropriately calibrated to improve the financial institutions' capacity to serve the real economy. The funding of private enterprises was included into the assessment indicators to evaluate how financial institutions supported the private enterprises. More weight was given to loans to small and micro businesses to encourage financial institutions to provide more credit recourses to national key areas and weak sectors.

Adjusting the macroprudential policies on cross-border capital flows dynamically. In May 2018, the reserve requirement ratio for RMB deposits placed in the PBC clearing accounts by clearing banks in Hong Kong and Macao was adjusted to 0 to facilitate the countercyclical policy measures to return neutral. This adjustment intended to enhance the price finding functions of FX markets and to increase the market liquidity. In August 2018, the PBC decided to increase the reserve requirement for FX forward transactions from 0 to 20 percent so as to mitigate macro financial risks and encourage the sound operation of financial institutions.

Unifying the regulations on asset management activities. The *Guidelines on Regulating Asset Management Business of Financial Institutions* was published in April 2018. The policy, based on the types of asset management products, sets up a uniform regulatory framework and aims to reducing regulatory arbitrage. Hereafter the relevant authorities continued to improve the regulations on asset management activities. Firstly, the PBC published in July the *Notice on Further Clarification of Issues Concerning the Guidelines on Regulating Asset Management Business of Financial Institutions*, to clarify some operational issues within the transitional period. Secondly, the supervisors published sectoral operationalised rules respectively. The CBIRC published the *Rules on Regulating the Wealth Management Business of Commercial Banks* and the *Rules on Managing Commercial Banks' Wealth Management Subsidiaries*, to guide the wealth management business back to its original mandate and to operate prudentially, as well as to require banks to set up wealth management subsidiaries. The Trust Institution Supervision Department of the CBIRC also issued the *Notice on Enhancing Supervision on Trust Institutions during the Transition Period of Asset Management Business* to its branches, to enhance the supervision on trust institutions during the transition period. The CSRC published the *Measures on the Private Equity Asset Management Business of Securities and Futures Firms* and the *Rules on the Operation of Private Equity Asset Management Plans of Securities and Futures Firms*, to regulate their investment, strengthen the liquidity requirement and improve the compliance of these institutions.

Enhancing regulation on the investment of non-financial enterprises in financial insti-

tutions. The PBC, together with other authorities, released the *Guidelines on Enhancing Regulation on the Investment of Non-financial Enterprises in Financial Institutions* in April 2018. Relevant authorities revised the *Interim Measures on the Equity Management of Commercial Banks* and the *Measures on the Equity Management of Insurance Companies*, and published the consultative draft of the *Regulations on the Equity Management of Securities Firms*. The PBC pushed forward the implementation of the *Guidelines* jointly with other authorities and achieved satisfying effects. The investment of non-financial enterprises in financial institutions is now better regulated and the blind expansion of some financial holding companies has been contained.

Improving the regulation on SIFIs. The PBC, CBIRC and CSRC jointly published the *Guidelines on Improving Regulation of Systemically Important Financial Institutions* , which introduced the requirements on the designation, regulation and resolution of SIFIs and established a primary regulatory framework on SIFIs. The *Guidelines* is a general policy framework, and more regulatory requirements and details will be clarified in the upcoming operationalised rules. Since the issuance of the *Guidelines*, the PBC and other relevant authorities have been working on the development of operationalised rules. Efforts will be made to develop the assessment methodologies and additional regulatory requirements on SIFIs in the banking, securities and insurance sectors gradually.

Developing the regulations on financial holding companies. The PBC published a consultative draft of the *Tentative Measures on Supervision and Regulation on Financial Holding Companies* for public consultation. The document, sticking to the principle of macroprudential regulation, introduces comprehensive, continuous and penetrating requirements on the capital, behaviours and risks of financial holding companies on a consolidated basis, so as to facilitate the compliant development of financial holding companies and fulfil their roles to better serve the real economy while effectively containing the financial risks.

Pushing forward the work on comprehensive financial statistics. Since the issuance of the *Opinion on Pushing Forward the Work on Comprehensive Financial Statistics from All Aspects* in March 2018 by the Office of the State Council, the PBC has achieved series of outcomes on priority areas together with other authorities. Firstly, a uniform statistical system of asset management products across all sectors was established, which could facilitate monitoring of the size, structure, reinvestment, maturity mismatch, scope of net valuation and leverage of asset management products. Secondly, the statistics targeted to priorities and weak sectors in domestic economy has been enhanced with the establishment of the statistical standards for loans of precision poverty alleviation and green finance, and the conduction of several thematic statistics for financial inclusion as well as loans collateralised with contracted farmland operational rights and farmers' property rights, etc.

Special Topic 11 Results of the Central Bank Rating of Financial Institutions

For the purpose of fulfilling its responsibilities of macroprudential regulation and systemic risk prevention, and evaluating the operation management and risk profiles of financial institutions in a scientific and reasonable manner, the PBC, on the basis of previous exploration and experience, further consolidated available resources effectively and began to conduct the Central Bank Rating of Financial Institutions in 2018.

I. About the Central Bank Rating of Financial Institutions

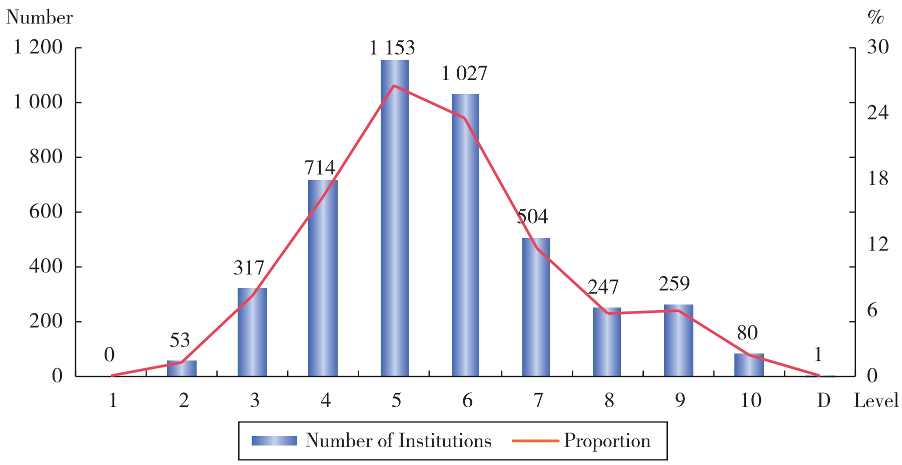
In 2018, the PBC conducted the Central Bank Rating of Financial Institutions quarterly, covering banking institutions such as development banks, policy banks, commercial banks, village and township banks, rural cooperative banks and rural credit cooperatives, and non-banking financial institutions such as finance companies of corporate groups, financial leasing companies, auto financing companies and consumer finance companies. The rating indicator system combines mathematical models with professional judgment, and focuses on evaluation of corporate governance, internal control, capital management, asset quality, market risk, liquidity, profitability, information system and financial ecosystem. Moreover, the final rating results also take into account live information that is collected during the process of off-site monitoring, stress testing and on-site investigations. The rating results span 11 levels, including level 1 to 10 and level D. The higher the level, the riskier it is. Level D refers to institutions that go bankrupt, are taken over or revoked. Financial institutions rated level 8~10 and level D are identified as high-risk institutions.

II. Results of the Central Bank Rating of Financial Institutions

The fourth quarter rating of 2018 covered 4 379 banking institutions, including 24 large banks and 4 355 small and medium-sized institutions (including 3 990 small and medium-sized banks and 365 non-banking institutions). Among the 24 large banks, 1 was rated level 1, 11 were rated level 2, 7 rated level 3, 3 rated level 4, 1 rated level 6 and 1 rated level 7. Among the 4 355 small and medium-sized institutions, 370 were rated level 1~3, accounting for 8.5 percent; 3 398 were rated level 4~7, accounting for 78 percent; and 586 were rated level 8~10 and 1 rated level D, accounting for 13.5 percent (Figure 3.1), which were mainly rural small and medium-sized financial institutions.

By institution type, foreign-funded banks and private banks were rated with comparatively good results, with 35.7 percent and 22.2 percent rated level 1~3, respectively. Village and township banks, city commercial banks and rural commercial banks followed, with 88.9 percent, 75.6 percent and 73.2 percent rated level 4~7, respectively. Rural credit cooperatives and rural cooperative banks were rated worse, with 43.3 percent and 32.7 percent of the institutions, respectively, rated level 8~10. Broken down by district, in Xiamen, Shenzhen, Shanghai, Zhejiang, Fujian, Qingdao, Jiangsu and Beijing, institutions rated Level 2~5 took up more than 70 percent.

Figure 3.1 Distribution of Rating Results for Small and Medium-sized Institutions



Source: The PBC.

In general, small and medium-sized financial institutions operate stably, and in recent years, 164 institutions exited the high-risk list after certain early corrective measures were taken. Some small and medium-sized financial institutions are rated risky, on one hand because that Chinese economy is slowing down and small and medium-sized financial institutions are more sensitive and liable to economic changes, and on the other hand, partly because of strengthening of banks' risk management. The classification of non-performing assets of banking institutions is now more prudent and banks are setting aside more loan loss provisions, which may result in decrease of some regulatory indicators and impact the rating results.

III. Application of the Results of Central Bank Rating of Financial Institutions

The Central Bank Rating of Financial Institutions lays the foundation for macroprudential regulation and systemic risk prevention by the PBC. The rating results provide an important basis for differentiated management, including the Macroprudential Assessment, approval of bond issuance by financial institutions and the central-bank lending, and determination of the differentiated deposit insurance premium. In 2018, the rating results were adopted in many aspects, playing an important role in risk mitigation and prevention.

Information about high-risk institutions was provided to relevant authorities regularly. The PBC sent risk warning letters to certain local governments regularly, warning them about the high risk of some local financial institutions, and asking them to take tailored measures, considering the specific risk sources of these institutions, to defuse risks in a targeted way. This will help the local governments to fulfill their responsibilities of risk mitigation and resolution based on the principle of territoriality, and help to develop the benign financial ecosystems for their own districts. The PBC also provided information about high-risk institutions for related regulatory authorities, making suggestions about regulatory responsibilities in risk mitigation and resolution, and how relevant parties should work and cooperate on the basis of clearly-defined responsibilities, so as to make joint efforts in defusing the risks of high-risk institutions in a proper manner.

Rating results were fed back to financial institutions, and early corrective measures were taken for high-risk institutions. The PBC informed the rated institutions one by one of their rating results as well as main risks and problems, and put forward suggestions for rectification. The PBC also reviewed the rectification plans of some financial institutions, inquired about their opinions and suggestions about Central Bank Rating, and observed their rectification effects. The PBC, together with other authorities, sent out warnings about high-risk institutions, and according to their risk characteristics and causes, took specific early corrective measures, including replenishing capital, reducing non-performing assets, restraining asset growth, lowering leverage, controlling large credit extension and trading, checking shareholder dividends, replacing the senior management, improving corporate governance and internal control, etc., in order to put right these institutions' irregular or even illegal activities and behaviors that were not in line with macroeconomic policies. In this way, high-risk institutions could be guided to make self-recovery and improvement of resilience against risks.

Special Topic 12 Development and Reform of Rural Credit Cooperation Institutions

Rural credit cooperation institutions (RCCIs for short hereafter, including rural commercial banks, rural cooperative banks and rural credit cooperatives) are the major force in implementing the rural vitalization strategy and developing financial inclusion, and they play a crucial role in the new era of carrying out solid work on agriculture, rural areas and farmers. However, some RCCIs deviate from main businesses, their corporate governance is weak and they carry heavy historical burdens. Therefore, it is imperative for them to reform so as to resolve and mitigate risks and maintain their market role of serving counties and supporting agriculture, rural areas, farmers and small enterprises.

I. The Reform Process of RCCIs

In the 1990s, state-owned commercial banks revoked branches in counties in the wake of commercialization reform. As a result, rural credit cooperatives became the major force to serve agriculture, rural areas and farmers. However, due to incomplete operation mechanism and internal control system, most rural credit cooperatives fell insolvent and could hardly maintain going concern. Reform then became inevitable. In June 2003, the State Council released the *Notice on Issuing Pilot Plans for Deepening Rural Credit Cooperative Reform*, which decided to launch rural credit cooperative reform pilot in eight provinces (cities) such as Jiangsu province. The provincial government was to take over the administration of rural credit cooperatives and fully assume the responsibility to resolve risks in them, while the CBRC was to regulate and supervise rural credit cooperatives. In September 2003, the CBRC issued the *Interim Provisions on the Administration of the Province (Autonomous Region and Municipalities) Unions of Rural Credit Cooperatives*, which prescribed regulations on the behaviors of province unions. Province unions played an active role in promoting rural credit cooperative reform and improving their internal control system. In August 2004, the State Council decided to expand the rural credit cooperative reform pilot to another 21 provinces (regions, cities). Since 2010 the CBRC has consecutively issued documents to steadily push forward the shareholding reform of rural credit cooperatives, following the principle of reforming one when one is ready. The No.1 Central Documents from 2016 to 2018 successively proposed conducting province union reform pilot, accelerating the study and formulation of province union reform plans, and promoting the reform of province unions. In February 2019, five ministries including the PBC jointly released the *Guidelines on Finance Serving Rural Vitalization*, stipulating that the RCCIs should uphold their market position in serving counties and supporting agriculture, rural areas, farmers and small enterprises, that the legal entity status and the number of rural financial institutions in counties should remain stable, and that efforts should be made to explore the reform path of rural credit cooperatives.

Now there are three management models for the RCCIs nationwide. The first is the province union. Each county union is an independent legal entity. They pool their funds together to establish a province union. The province union is not an operating entity but has administrative function where it manages, guides, coordinates and serves rural credit cooperatives on behalf of the provincial government. Most regions across the country now use this model. The second is the unitary legal entity. Four municipalities, namely Beijing, Shanghai, Tianjin① and Chongqing, set up their own unitary rural commercial banks. The third is the financial holding company. Ningxia Yellow River Rural Commercial Bank was born out of the merger of the former Ningxia Hui Autonomous Region Union and Yinchuan Union while absorbing some domestic legal entities and natural persons, which realized unitary management over all county and city unions in the region with capital as the bridge.

II. Development of RCCIs and Potential Problems

Thanks to years of reform and development, the RCCIs have improved significantly in terms of asset size, asset quality and profitability. At end-2018, there were 2 239 RCCIs nationwide (including 1 397 rural commercial banks, 30 rural cooperative banks and 812 rural credit cooperatives), accounting for 48.8 percent of banking institutions in number. Their total assets increased by 5.21 percent y-o-y to RMB 33 trillion, accounting for 13.6 percent of total assets of banking institutions. Their total liabilities grew by 4.73 percent y-o-y to RMB 30.5 trillion. Outstanding loans stood at RMB 16.7 trillion, up by 13.13 percent y-o-y. Non-performing loans (NPLs) reached RMB 830.48 billion with an NPL ratio of 4.97 percent. The capital adequacy ratio registered 12.3 percent. In 2018, the RCCIs realized net profits of RMB 250.8 billion.

Though the development of RCCIs has made much progress, yet they are still faced with notable problems. First, some RCCIs have left countryside for cities, deviating from their main businesses. Since 2010, rural credit cooperatives have gone through system reform through merger, acquisition, reorganization and other approaches, causing a plummet in the number of institutions. By end-2018, the number of rural credit cooperatives had dropped by 715 or nearly 25 percent from end-2010. Nonetheless, the number of prefecture-level RCCIs has grown rapidly. At end-2018, there were 23 RCCIs as unitary legal entities and 437 RCCIs as district legal entities at prefecture level nationwide, altogether

① Tianjin set up Tianjin Rural Commercial Bank and Tianjin Binhai Rural Commercial Bank.

accounting for 21 percent of all the RCCIs. Far from countryside market, some RCCIs deviate from their main businesses and fail to play the role of supporting agriculture, rural areas, farmers and small enterprises. Second, corporate governance is weak in absence of the mechanism of checks and balances. In practice, some province unions rely excessively on administrative management, their power and duty in risk resolution are not equivalent, and they do not have adequate service function. Though some RCCIs have established the modern corporate governance structure, yet it is common that their shareholders' meeting, board of directors and board of supervisors are dormant, that decision making is mere formality, and that the chairman holds an overwhelming position. The board of supervisors and independent directors cannot play an effective role in supervision as well as checks and balances. In the process of system reform in RCCIs, some shareholders purchase stakes only to extract funds. Under the control of major shareholders, shareholders and their related parties extracted funds from some RCCIs by illegal activities like interbank investment and related transactions, which made the RCCIs cash machines of major shareholders. Third, system reform fails to resolve heavy historical burdens. Before system reform, some rural credit cooperatives carried heavy historical burdens with large losses in their accounts, a severe lack of capital and a large allowance gap. In the process of system reform, some rural credit cooperatives hided their non-performing assets for a prolonged period by artificially adjusting five-category loan classification, borrowing new loans to repay the old, restructuring NPLs, false transfer or resolution and other means. Fourth, those RCCIs that have finished system reform face new challenges and risks. In the wake of system reform, the RCCIs at prefecture level compete directly with branches of large banks and city commercial banks. It is difficult for them to obtain good clients. In order to expand rapidly, some RCCIs either put considerable credit funds into risky enterprises or engage actively in interbank businesses, causing high potential risks.

III. Ideas to Reform RCCIs

Maintaining the general stability of the legal entity status and role of the RCCIs at county-level. As small and medium-sized financial institutions, rural credit cooperatives should focus on local businesses, concentrate on serving grass-root clients, and should not engage in business diversification and cross-region operation. The 2017 National Financial Work Conference demanded financial institutions to accelerate operation model transformation, to strengthen their main businesses and to reinforce their specialties. It has been the development strategy of the central government for years to focus on agriculture, rural areas and farmers and maintain the status of rural credit cooperatives as county-level legal entities. This caters to the requirement of agricultural modernization and rural economy restructuring, aligns with the long-term interests of rural credit cooperatives and conforms to the reality to serve agriculture, rural areas and farmers.

Improving corporate governance and cultivating eligible shareholders according to market principles. Cultivating eligible shareholders and relevant system in line with market principles is the key to improve governance of rural credit cooperatives and break the strange circle of stronger administrative management and continuously weakening corporate governance. On one hand, efforts should be made to exert proper eligibility management over shareholders so as to enhance capital quality, improve equity structure, avoid mistakes such as forced change into rural commercial banks, compulsory stake purchase, debt in the name of equity and buying stakes with loans. On the other hand, measures should be taken to improve corporate governance, and clearly define a reasonable division of labor among the shareholders' meeting, the board of directors, the board of supervisors and the senior management. The board of directors should really perform the functions of formulating the development strategy, risk management strategy and governance system of the RCCIs and supervising their implementation so as to protect the interests of small shareholders. External directors and supervisors should be given an active role. The effectiveness of information disclosure should be promoted.

Strengthening regulation on conducts of shareholders and related parties. The regulatory authorities should reinforce risk examination and screening of shareholders and related parties, thoroughly investigate potential risks and concerns, promptly correct risks and urge the rectification of RCCIs. On one hand, regulatory authorities should strengthen the review of shareholder qualification, regularly assess how main shareholders carry out their commitments, periodically screen and clean up shareholders' stakes, explore the exit mechanism for non-eligible shareholders, and firmly resolve issues such as false stakes and buying stakes with loans. On the other hand, regulators should keep a close eye on the related transactions of shareholders and insiders, and prevent the collusion between the inside and outside to extract banks' funds. Efforts should also be made to regulate the equity pledging by shareholders, and crack hard down on illegal behaviors such as using equity pledging to hide related transactions, extract capital in disguised form and tunnel illegitimate interests.

Making clear risk resolution responsibility and promptly mitigating stock risks. High-risk RCCIs should recognize their principal responsibility in bail-in, firmly follow the concept of compliant operation and engage actively in bail-in. The provincial government should assume their territorial responsibility in risk resolution, take the lead in formulating risk resolution plans one by one for high-risk RCCIs within their territories and organize the implementation of these plans. The deposit insurance fund is to play the role as the risk mitigation and resolution platform to the full, mitigating risks in an orderly manner by prompt correction, reform and reorganization, takeover and facilitating market-based exit.

Deepening the reform of province unions and improving their service quality.

Reforms should adhere to the direction of market-orientation, rule-of-law and enterprise-orientation, service functions and business scope should be scientifically defined, scope of management should be properly adjusted and optimized, the mandates should be formulated according to laws and the responsibilities should be clarified. Regardless of the reform mode of province unions, the provincial government shall establish institutional arrangements to serve the county economy, manage small entities based on their classification, resolve institutions' risks, serve the industry, carry out supervision and constraints, and clarify the corresponding departments and their responsibilities.

Special Topic 13 Review of the Implementation of the Asset Management Business Regulation

In April 2018, the PBC, together with the CBIRC, CSRC and SAFE, released the *Guidelines on Regulating Asset Management Business of Financial Institutions* (hereafter referred to as "the *Guidelines*"). Under the *Guidelines*, the PBC, in coordination with concerning authorities, has made continuous efforts to improve standards and rules for the asset management business, in order to prevent and mitigate risks arising from the shadow banking sector. Overall, these measures have effectively mitigated shadow banking risks from a previously high level, led to early progress in addressing misconducts in the asset management sector and ushered in the transformation and upgrading of the asset management business.

I. Constant Improvements Have Been Witnessed in the Regulatory Framework of Asset Management Sector

The PBC has worked to continuously improve standards and rules for asset management business. First, a supplementary notice was released to provide operational details during the transition period. In July 2018, the PBC issued the *Notice of Further Clarification of Issues Concerning the Guidelines on Regulating Asset Management Business of Financial Institutions* allowing publicly-offered products to invest in non-standard credit assets (hereinafter referred to as "NSCA") and existing asset management products to invest in a range of assets newly-defined in the *Guidelines* during the transition, which has helped to guide financial institutions through their business rectification in an orderly manner and anchor market expectations. Second, a statistical system of asset management products (AMPs) has become operational. With the finalization and issue of the statistical regime and data reporting templates for AMPs of financial institutions, a template-based data collection was officially launched in January 2019, covering all financial institutions in the banking, securities and insurance sectors. Third, efforts are being made to bridge institutional gaps. These efforts include the formulation of rules on the identification of standard credit assets and accompanying details, and adjustments to the parameters of the Macroprudential Assessment (MPA) to facilitate shifting of NSCAs on the balance sheet.

Financial regulators have worked to formulate and improve rules in their respective sectors. First, the *Rules on Regulating the Wealth Management Business of Commercial Banks* was released, which put forward detailed regulatory requirements including enhancing risk isolation, containing maturity mismatch, banning capital pool-based business, limiting multiple reinvestments, regulating outsourcing businesses and managing leverage and concentration risks, so as to promote banking institutions to refocus their wealth management business on its role of asset management. Second, the *Rules on Managing Commercial Banks' Wealth Management Subsidiaries* was published to promote banks to set up wealth management subsidiaries to conduct asset management business, with the purpose of enhancing risk isolation. Third, measures were taken to improve regulation and supervision on trust companies during the transition period, specifically allowing existing entrusted funds to invest in a new range of assets eligible for investment during the transition period. Fourth, the *Measures on the Private Equity Asset Management Business of Securities and Futures Firms* was rolled out, which has helped to facilitate product classification, rein in investment and business operations, strengthen liquidity management and improve compliance.

II. Early Progress Has Been Made in the Overhaul of the Shadow Banking Sector

Thanks to concerted efforts by financial regulators, asset management business has begun to pivot back to its role of wealth management and risks have been gradually contained. First, multi-layered reinvestments and channeling businesses are being downsized, and activities such as ineffective circulation of funds within the financial system and speculative cash investment contained. As of end March 2019, the volume of banking wealth management products investing in other types of AMPs was RMB 10.7 trillion[①], a drop of 17.1 percent compared with that prior to the release of the *Guidelines* (i.e. end of April 2018). Second, the transformation to net value-based products has accelerated. As of end-March 2019, the total volume of net value-based AMPs reached RMB 38.8 trillion, an increase of 10.2 percent than that of end 2018. Third, investments in NSCAs stabilized with a slight decline. As of end March 2019, investments by AMPs in NSCAs, such as loans and beneficial rights of assets, totaled RMB 18.5 trillion, accounting for 23.3 percent of the net worth of AMPs, which is 0.2 percentage point lower than that by end-2018. Fourth, the capability to serve the real economy realized recovering growth. As of end March 2019, there was RMB 37.9 trillion worth of AMPs investing in the real sector, taking up 43.9 percent of total assets of AMPs, an increase of 1.6 percentage points than that by end-2018.

III. Smooth Transformation Is Underway for the Asset Management Business

As of end-March 2019, there were 130 000 outstanding AMPs by financial institutions, with a balance of fund raised at RMB 79.3

① Unless otherwise indicated, sources of data in this special topic are the PBC preliminary statistics.

trillion.

The size of banking wealth management products maintained stable with a slight decline and optimizing structure. As of end-March 2019, banking wealth management products registered a balance of RMB 21.4 trillion, a drop of RMB 1.4 trillion yuan or by 6.1 percent from that prior to the release of the *Guidelines*[①] (Figure 3.2). In terms of product structure, on one hand, the short-term closed-end wealth management products are phased out, as the balance of closed-end wealth management products with maturities less than 90 days drops by 59.2 percent at RMB 574.91 billion after the release of the *Guidelines*[②]; on the other, existing products are downsizing, with the balance of wealth management products based on expected returns registering RMB 14.6 trillion, taking up 68.2 percent of the total, a drop of 18.6 percentage points following the release of the *Guidelines*.

AMPs of trust companies decreased in size and became more net value-based in operation. As of end March 2019, the balance of entrusted funds of trust companies was RMB 19.0 trillion, a drop of RMB 2.4 trillion, or by 11.3 percent compared to that prior to the release of the *Guidelines*[③] (Figure 3.2). The balance of net value-based AMPs of trust companies increased by 8.0 percent than that by end-2018, resulting in a 1.2 percentage points rise in its share of the total.

Publicly-offered funds kept growing while incompliant products were gradually rectified and transformed. Due to the net value-based operation and adequate information disclosure, the balance of publicly-offered funds increased. As of end March 2019, publicly-offered funds registered a balance of RMB 13.9 trillion, rising by 7.8 percent than that prior to the release of the *Guidelines*[④] (Figure 3.2). Meanwhile, publicly-offered tranched funds and principal-guaranteed funds are gradually transformed to other types of funds or subject to early liquidation in accordance with product contracts and relevant regulatory rules.

Privately-offered AMPs of securities and futures operating institutions continue to downsize. Because of the large proportion of channeling business, the balance of privately-offered AMPs of securities and futures institutions dropped significantly to RMB 21.1 trillion by end-March 2019, a plunge of 21.7 percent compared to that prior to the release of the *Guidelines*[⑤] (Figure 3.2). According to relevant operational guidelines released by the CSRC, collective AMPs with more than 200 investors will make transition to publicly-offered funds or privately-offered AMPs.

① Source: the CBIRC.

② Source: the CBIRC.

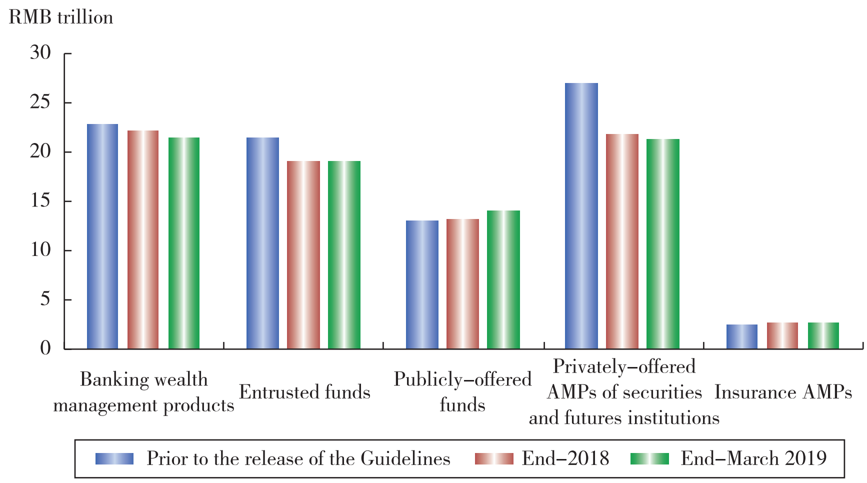
③ Source: the CBIRC.

④ Source: the Asset Management Association of China.

⑤ Source: the Asset Management Association of China.

Insurance AMPs maintained stable and investments in NSCAs declined. As of end-March 2019, the balance of insurance AMPs was RMB 2.6 trillion, which is largely the same with that prior to the release of the *Guidelines* (Figure 3.2). Investment of portfolio products in NSCAs, which is the focus of the rectification, registered RMB 122.7 billion by end-March 2019, a decrease of 41.6 percent than that prior to the release of the *Guidelines*①.

Figure 3.2 Changes of Asset Management Businesses in Various Sectors



Source: the CBIRC and Asset Management Association of China.

IV. Implementing the *Guidelines* in an Active and Prudent Manner and Deepening Reform in the Asset Management Sector

Next, in implementing the decisions and arrangements of the CPC Central Committee and the State Council, the PBC will continue to guard against financial risks with appropriate timing and pace, strengthen regulatory coordination and implement the *Guidelines* in an active and prudent manner. Efforts will be made to uphold the bottom line of no outbreak of systemic risks, maintain strategic focus, improve supporting policies, adhere to prudent and inclusive supervision and take the opportunity of opening-up to promote the high-quality development of the asset management sector and ensure it serves the real economy.

Improving supporting policies and addressing regulatory gaps. Accelerate the release of rules to identify standard credit assets, distinguish between standard credit assets and NSCAs, and build up transition

① Source: the CBIRC.

mechanism of NSCAs to standard assets. Push forward with the formulation of supporting rules of the *Guidelines,* in order to eliminate regulatory gaps. Facilitate efforts in ensuring equal treatment for various AMPs in terms of account opening, ownership registration and taxation policies, so as to reduce regulatory discrepancy for similar AMPs.

Adhering to the bottom line of no outbreak of systemic risks and the approach of prudent and inclusive supervision. Continue to strengthen forward guidance and unswervingly stick to the main theme of the *Guidelines*. That is, keeping the bottom line of systemic risk prevention and resolutely redressing misconducts and illegal activities on one hand, and improving regulatory rule-making and approaches by honoring development law of the industry, so as to promote the sound and orderly development of the asset management sector.

Promoting sound operation and enhancing management of real risks. Financial institutions will be guided to stick to the asset management businesses' original role, strengthen sound operation and pursue the quality of development instead of the speed. Facilitate better management of real risks by financial institutions including fulfilling their responsibilities as managers of AMPs, knowing clients' risk preferences and risk profiles of their assets and conducting risk pricing based on real picture of risks in a realistic and pragmatic manner.

Developing direct financing and serving the real economy. Cultivate long-term investors and qualified investors, make full use of the role of AMPs in direct financing, and steer away from the previous business model featuring a heavy reliance on quasi-credit businesses. Guide AMPs in serving the real economy via equity investment so as to provide enterprises, privately-owned enterprises in particular, with long-term and genuine financing.

Further opening up and promoting industry transition. Improve policy design to facilitate the enhancement to economic and financial governance and risk prevention capacities of institutions in the context of opening-up. Push forward with the opening-up of the asset management sector and draw upon asset management experiences of foreign entities to learn from their best practices in making up for deficiencies in our own practice. And by doing so, quality of the asset management business will be enhanced to better serve the economic and social development as well as the capital market reform in China.

Special Topic 14 Centralized Custody of Deposit Reserves by Non-Bank Payment Institutions

As part of the efforts to implement the agenda set by the special rectification campaign of the State Council on the mitigation of Internet finance risks, the PBC developed rules for non-bank payment institutions (hereinafter referred to as payment institutions) to cut direct link with banks and deposit customer funds into central custodian in January 2017, with a two-year implementation period. The above arrangements have facilitated the re-focus of payment institutions on small-amount, quick and convenient payment services and the transition of the payment sector towards business, technological and service innovation. In particular, the centralized custody of deposit reserves is a prerequisite to bring the payment industry back to its role of payment service. It helps to protect the rights and interests of consumers, and prevent and mitigate financial risks.

I. Background of the Introduction of Centralized Custody of Deposit Reserves

The PBC issued the *Administrative Measures on Payment Services of Non-Financial Institutions* in 2010, which requires non-financial institutions to get licenses before offering payment services. Since then, non-bank payment service in China has experienced a rapid growth featuring constant innovation. In particular, emerging payment methods and technologies, such as mobile payment, online payment, and QR code payment, have developed by leaps and bounds, exerting a wide-ranging influence globally.

Ensuring the safety of clients' deposit reserves has always been a top priority for the PBC in supervising and regulating payment institutions. In June 2013, the PBC issued the *Measures on the Custody and Management of Clients' Reserves of Payment Institutions,* applying strict rules to the deposit, gathering, use, transfer and other custody activities of clients' reserves, and specifying responsibilities of reserve banks in overseeing deposited reserves. However, with rapid market developments, the size of clients' reserves, as prepaid funds deposited with payment institutions, kept growing. Incidents of misconducts by payment institutions, including unauthorized operation and embezzlement of clients' reserves, occurred repeatedly, posing growing risks. First, certain payment institutions embezzled clients' reserves and even provided channels for illegal activities such as online gambling, hurting consumers' legitimate rights and interests. Second, many payment institutions focus on earning interest income on the growing clients' reserves, which is a deviation from their role of payment institutions and a reflection of their lack of innovation incentives. Third, some payment institutions leveraged reserve deposits to engage in price bargaining with banks, and used interest income to fund cross-subsidy, which to some extent caused the disorder and chaos in the payment service market and undermined the level playing field. Fourth, certain payment institutions, as they increasingly engage in interbank transfer and clearing via accounts opened in over a hundred commercial banks, have effectively transformed themselves into clearing houses and interbank settlement roles played by central banks. These activities have increased credit risk, and undermined monetary policy transmission and macro-prudential management.

To promote a healthy and sustainable development of the payment sector and firmly safeguard the bottom line of no outbreaks of systemic risks, the General Office of the State Council published the *Implementation Plan for the Special Rectification on Internet Finance Risks* in April 2016, clearly stipulating that payment institutions should deposit clients' reserves with the PBC or eligible commercial banks, payment institutions should not be linked to the system of multiple banks to offer disguised interbank clearing, and that interbank payment services of payment institutions should be conducted via the PBC's interbank clearing system or qualified clearinghouses. Approved by the State Council, the PBC published in January 2017 the *Notice on Issues Regarding Centralized Custody of Payment Institution Clients' Reserves*, which introduced the centralized custody of clients' reserves.

II. Implementation of the Centralized Custody of Clients' Reserves

To avoid market turbulence, the PBC adopted a phased-in approach in introducing centralized custody for clients' reserves by taking into account the status quo of deposit of clients' reserves, the business model of payment institutions, and the progress in establishing the NetsUnion. The deposit of clients' reserves with the PBC started on April 17, 2017, with an average reserve ratio of 20 percent. In December 2017, the PBC issued the *Notice on Adjusting the Reserve Ratio of Centralized Custody of Payment Institution Clients' Reserves*, increasing it to an average of 50 percent to be phased in from February to April 2018. In June 2018, the PBC issued the *Notice on Issues Regarding Full Centralized Custody of Payment Institution Clients' Reserves*, stipulating that the ratio of centralized custody should be increased gradually from current levels in July 2018 to 100 percent in January 2019.

Over the past two years, the PBC forged synergy among 238 payment institutions, 513 banking financial institutions, the NetsUnion, and the China UnionPay and steadily implemented the centralized custody policy. First, support has been extended to payment institutions in conducting interbank payment activities through the NetsUnion or interbank bankcard transfer system, which smoothed out the procedures for centralized custody; Second, the PBC closely monitored impacts to the market, gradually increased the centralized reserve ratio, and flexibly conducted open market operations to offset the impact of centralized custody on liquidity. Thanks to close cooperation among all stakeholders, the PBC completed the work of centralized custody of clients' reserves as scheduled.

III. Effects of Centralized Custody of Clients' Reserves

Since the implementation of centralized custody policies and supplementary measures, commercial banks and payment institutions have responded positively, with some of the payment institutions even completing the central custody several months ahead of schedule. Driven by the phased-in approach, payment institutions constantly promoted business transformation, stepped up innovation efforts, and improved services, which have contributed to a more healthy and stable growth of the payment industry.

Payment services sector has grew steadily with rising business volumes. The business volumes of payment institutions maintained a rapid growth momentum, as the centralized custody of clients' reserves didn't impact market growth. In 2018, payment institutions saw a total of 589.001 billion transactions with a value of RMB 243.84 trillion, a y-o-y increase of 84.46 percent and 43.91 percent respectively.

Risk of embezzlement of clients' reserves has been effectively prevented and the order of the payment and clearing market has been restored. The centralized custody of clients' reserves and real-time monitoring of funds through clearing houses have changed the landscape characterized by scattered custody and management of reserves, simplified the transaction path and improved transparency, which has effectively contained the risk of embezzlement. In addition, it has also provided clues for solving major cases of financial crimes and played a fundamental role in improving the monitoring mechanism in anti-money laundering and counter terrorist financing.

Payment institutions have been stimulated to develop innovation capacity and accelerate business transformation and upgrade. The centralized custody policy effectively prompted payment institutions to abandon the interest spread-dependent profit model and switch to business, technology and customer service innovation so as to gradually develop a benign and sustainable growth model. For example, large payment institutions with strengths in technology continuously explored new sources of profitability by providing new businesses such as quick pass and combining cards with QR code, as well as leveraging new technologies such as NFC, bio-identification and artificial intelligence. Some payment institutions actively expanded new business scenarios and improved cross-border payment services to facilitate the exports and imports businesses of cross-border e-commerce, which better served the real economy.

A level playing field has been upheld for the healthy and sustainable growth of the

market. The centralized custody of reserves and unified funds clearing services for payment service providers have substantially lowered the connectivity costs, and curbed unfair competition, such as leveraging reserve deposits to force banks to reduce fees and providing cross-subsidy through interests earned on reserves, which has provided more business opportunities for small- and medium-sized institutions, lowered the cost, and achieved connectivity and fair competition.

Going forward, the PBC will adhere to the principle of providing quality payment services to the people and continuously improve and strengthen regulation by combining risk overhaul and institutional buildup to create a level playing field and guide payment institutions to refocus on small-amount and convenient payment services. First, strengthen institutional foundation and make urgent efforts to revise the *Measures on the Custody and Management of Clients' Reserves of Payment Institutions*, in response to recent market developments following the introduction of centralized custody of clients' reserves. In the meantime, accelerate the efforts to develop and issue the *Regulations on Non-Bank Payment Institutions*, enhance the regulatory framework in line with the principle of substance over form, and address regulatory gaps and arbitrage to make for the transition of market players to devote more resources to innovation and better services. Second, push forward with the special campaign on addressing risks of payment institutions, explore the design of a regulatory framework that covers the whole life cycle of payment institutions, and guide clearing houses and reserve banks to closely monitor deposit reserves, make full use of big data technology in building an end-to-end reserve regulatory mechanism, improve the reserve information cross-check and verification mechanism, and firmly safeguard the bottom line of ensuring reserve safety.

Special Topic 15 Improving the Financial Safety Net to Effectively Prevent and Mitigate Financial Risks

Financial safety net refers to, in collective terms, the array of crisis prevention and management arrangements designed to maintain sound and orderly functioning of the financial system by preventing individual risks from spreading through the link of financial institutions to the wider system. Three pillars are usually crucial in a financial safety net: prudential regulation and supervision, investor protection schemes especially deposit insurance, and role of the central bank as the lender of last resort. As shown by recent cases of financial institutions exiting the market and the growing trends of the financial industry, it is important to take urgent steps to improve current institutional arrangements for a sound financial safety net in order to prevent and mitigate financial risks in a timely and effective manner, and to promote sound and stable functioning of the financial system.

I. Review of the Financial Safety Net in China

Since 1990s, the outbreaks of several financial crises have led national authorities to attach great importance to the policy frame and role of a financial safety net, with the Global Financial Crisis in 2008 prompting the international community to further reach consensus on institutional elements of an effective financial safety net. These elements include the following: first, prudential regulatory and supervisory practices, as the first line of defence, are precautious measures that regulatory authorities take, mainly through on-site and off-site inspections towards the regulated, to identify and respond to potential risks with timely regulatory actions. Second, deposit insurance and other types of investor protection schemes are the second line of defence, which fund the risk resolution of problem institutions to protect the legitimate rights of depositors and investors and prevent financial panic, and facilitate the exit of highly risky ones that cannot resume normal operation. Third, the central bank as the Lender of Last Resort (LOLR) constitutes the third line of defence. Central banks, through balance sheet expansion, provide liquidity facilities to those financial institutions in need and the market as a whole to prevent and mitigate systemic risks, boost market confidence, soften financial shocks to the real economy, and maintain economic and financial stability.

In the case of China, efforts to establish and improve the financial safety net have been accelerated since 2003, as the evolving market liberalization and open-up of the financial sector present mounting challenges for financial risk prevention and resolution. These efforts made by the financial authorities include constant improvements to the prudential regulatory framework to enhance regulatory effectiveness, introduction of the deposit insurance and other investor protection plans, and exploration on sound practices of the central bank as the LOLR. As a result, the role of financial safety net in safeguarding financial stability has been steadily strengthened.

1. Prudential Regulatory Practices

In the period before 1992, the PBC assumed consolidated supervision over the financial industry in China. In 1992, the Securities Commission of the State Council (SCSC) and China Securities Regulatory Commission (CSRC) were established to take over from the PBC responsibilities of overseeing the securities and futures markets. Later in 1998, the first National Financial Work Conference decided on the cancellation of the SCSC and the empowerment of the CSRC to be the sole regulator of securities, funds and futures firms, and exercise oversight over the securities and futures markets. In the same year, the former China Insurance Regulatory Commission (CIRC) was set up to govern insurers as well as the domestic insurance market. In 2003, as decided by the second National Financial Work Conference, the former China Banking Regulatory Commission (CBRC) was founded with the role of regulating and supervising banks, financial asset management companies, trusts and other deposit-taking institutions, a role previously performed by the PBC. Thus, the sectoral regulatory regime was finalised in China.

Under the sectoral framework, regulators in the respective sectors have innovated their supervisory methods and tools to be in full compliance with international standards and codes. **In the banking sector**, measures have been taken to fully implement the Basel III framework; prudential standards on capital, liquidity, asset quality, large exposure and transactions with related parties have been finalised; and regulatory requirements on corporate governance, risk management process and internal control have been put in place. **In the securities sector**, a set of risk monitoring indicators and regulatory rules targeting net assets of securities firms have been established; and the third-party custody of customer transaction and settlement funds is enforced across the industry to better protect interests of retail investors. **In the insurance sector**, the China Risk-oriented Solvency System (C-ROSS) was launched, highlighting the establishment of the three-pillar regulatory regime featuring regulatory requirements on solvency, corporate governance and market conduct.

In the last few years, the tendency among financial institutions to operate on a consolidated basis, accompanied by an increasing variety of cross-sector and cross-market financial products, has given rise to greater complexity in the financial system and the acute issue of regulatory arbitrage. Against this backdrop, the National Financial Work Conference convened in 2017 decided to establish the State Council Financial Stability and Development Committee, or FSDC, to be responsible for coordinating important issues on financial stability, reform and development.

In 2018, CBRC and CIRC were integrated into the China Banking and Insurance Regulatory Commission (CBIRC) to regulate and supervise the banking and insurance sectors as a whole. The responsibilities of drafting important laws and regulations as well as fundamental prudential policies for banking and insurance sectors were shifted from the former CBRC and CIRC to the PBC, a move to strengthen the PBC's responsibilities for macroprudential regulation and systemic risk prevention.

2. Deposit Insurance and Other Investor Protection Schemes

The initiatives to set up investor protection schemes started early in the 1990s. In 1995, the *Insurance Law of the People's Republic of China* first outlined the general principles on the insurance security fund, and later in 2004, the *Measures for Administration of the Insurance Security Fund* issued by the CIRC specified rules on the management of the fund, featuring centralized management and coordinated use. In 2005, drawing on lessons and experiences from several risk resolution cases of securities firms, the CSRC, together with the MOF and PBC, released the *Measures for Administration of the Securities Investor Protection Fund*, marking the establishment of the securities investor protection fund. In 2014, in response to rapid growth of the trust sector, the CBRC and MOF established the trust protection fund with the publication of the *Measures for Administration of the Trust Protection Fund*, as a precautious measure against potential risks.

As the domestic financial industry is predominated by banks, the deposit insurance system constitutes a key component of a sound financial safety net. The deposit insurance system, which is essential for strengthening protection of depositors and specifying the loss allocation and risk resolution mechanisms of a failed banking institution, helps to prevent and mitigate financial risks in a timely manner and to safeguard financial stability. The CPC Central Committee and the State Council have attached high importance to the design of a deposit insurance system in China. In 1993, *Decision of the State Council on Reform of the Financial System* put forward the establishment of the deposit insurance system to protect public interests. In 2013, the third Plenary Session of the 18th CPC Central Committee endorsed the plan to establish the deposit insurance system and facilitate market-based exit of failing financial institutions. On May 1, 2015, the promulgation of the *Deposit Insurance Regulations* marked the official establishment of the deposit insurance system in China. It covers the full range of deposit-taking financial institutions, and implements a compensation limit of up to RMB 500 000 and a risk differentiated premium rate. The fund collects premiums from the insured institutions and is mandated with necessary prompt correction and risk resolution powers. To ensure the smooth start and sound functioning of the fund, the PBC is designated to manage its operation, including premium collection, pay-out and enforcement of prompt corrective actions or risk resolution measures.

In practice, the deposit insurance and various investor protection funds put in place along the process have effectively played the role of a “fire extinguisher”. The deposit insurance management authority disposed of the risk of the Baoshang Bank by using deposit insurance fund to acquire large-value claims, which showcased the role of the deposit insurance fund as a market-based risk resolution platform. Retail depositors were compensated in full amount, while wholesale corporate deposits and interbank liabilities were partially assumed. These measures anchored public expectations and avoided a run on the bank. By protecting legitimate rights of customers and curbing excessive risk-taking behaviours at the same time, the resolution process served the dual purpose of preventing outbreaks of systemic risks and reducing moral hazard. In the case of Anbang Insurance Group, the insurance security fund worked to preserve the investors’ interests to the maximum extent through injecting needed funds to the Group and facilitating the transfer of its insurance business to the newly-established Dajia Insurance Group. Since its inception, the trust protection fund have provided, in the form of liquidity facilities, risk mitigation funding of over RMB 10 billion to help trust companies tackle liquidity risks. The establishment of the securities investor protection system and the enforcement of third-party custody of customer transaction and settlement funds have laid down a sound foundation for the stable functioning of the securities sector.

3. The Central Bank As the LOLR

The role of the central bank as the LOLR is realized through the provision of liquidity support to financial institutions for the purpose of preventing systemic risks. Generally speaking, for those financial institutions who are of less systemic importance, depending on the case, the deposit insurance fund or protection funds in respective sectors can either provide liquidity support directly or apply resolution; for those institutions who are of systemic importance, considered a going-concern as they remains largely sound financially and whose resolution costs can be recovered, the central bank may provide liquidity support as necessary, on condition that the institution itself, the local government and governing regulator have fulfilled their respective responsibilities. For those institutions whose failures are of systemic impact but are considered a gone-concern as they are severely insolvent, the disposal is usually carried out by the finance department. And for institutions whose failures can be managed in a controlled manner to minimize any systemic risks, their market exit should be allowed or even encouraged to reduce taxpayer losses and enforce market discipline.

Over the years, especially in the period prior to the creation of the deposit insurance fund and other investor protection funds, the PBC activated its role as the LOLR in several cases to mitigate financial risks. These include: (a) providing emergency loans to institutions that experience a payment crisis, on conditions that bail-in resources have been exhausted, local governments and concerned agencies have acted responsibly with effective relief measures, the bail-out plan drafted by shareholders have been approved by the PBC and that relevant persons in charge have been held liable; (b) with approval of the State Council, providing central bank lending to the institution in the process of resolution, to acquire individual creditors' rights and obtain claims of creditors on the disposed institution; and (c) with approval of the State Council and in compliance with the law, providing central special-purpose lending for the sole purpose of local risk resolution.

It should be noted that each integral part of the financial safety net is as mutually independent as it is interlinked, which may require the combination of two or more in use. While the investor protection system, the deposit insurance fund for instance, takes a dominant role in risk resolution of a certain institution, it may also be necessary for the central bank to provide backup financing in order to facilitate the process.

II. Challenges to the Existing Financial Safety Net

Effectiveness of financial regulation and supervision needs to be enhanced. The financial industry has experienced a rapid growth with innovative products and services emerging in large numbers in the past few years. These innovations, while serving to meet financial needs of individual and business customers and support the real economy, have also given rise to a string of challenges. Certain non-financial enterprises have aggressively expanded into the financial sector through false capital contribution, leveraged fund and related transactions While their investment or shareholding in financial institutions have turned them into de-facto financial holding companies, they are not similarly regulated or supervised as an incumbent institution is. In face of the occasional occurrence of illegal financial activities including the provision of financial services without a proper license, unauthorised operation in the disguise of internet, unauthorised businesses conducted through local exchanges and illegal fund raising, a harmonized policy framework to deal with these violations or misconducts is yet to be developed. While noting early progress in establishing a comprehensive statistical system for the financial industry, data gap still remains and risk monitoring and assessment needs on the systemic level should be further satisfied. The tendencies of financial institutions to increasingly operate on a consolidated basis call for a clearer division of responsibilities among regulators, elimination of regulatory gaps, and constant improvements to regulatory coordination and information-sharing.

Prompt corrective functions by the deposit insurance and other investor protection schemes remain to be improved. This function emphasizes the role of early identification and prompt intervention in dealing with problem institutions, to increase effectiveness of these schemes in risk resolution, reduce resolution costs and prevent financial risks from escalating and spreading. According to the *Deposit Insurance Regulations* and regulatory measures for various investor protection funds, deposit insurance is currently the only scheme that has been mandated with an prompt corrective function and follows a cost minimization rule, though its prompt corrective role needs to be further improved.

Measurement of investor protection varies. The *Deposit Insurance Regulations* specifies that compensation paid by the deposit insurance fund to depositors, principal and interest combined, is capped at RMB 500 000. The insurance security fund made it clear that relief standards are subject to a discount if the insurer lost its license or applied for bankruptcy. The securities investor protection fund and trust protection fund have no specific rules on risk coverage, which may entail a risk of full amount of coverage. In fact, either investment-oriented insurance products, or shares, bonds, other types of securities and trusts, they are wealth management vehicles in nature and belong to the category of high-risk, high-yield products. Rather than let investors themselves bear the risks associated with these products, the actual coverage ratios are either high enough or undefined, or even potentially result in full coverage. This practice is unhelpful for the cultivation of risk awareness among investors, and may create adverse incentives.

More market-oriented risk resolution mechanisms need to be developed. In the past, risk resolution primarily adopted the administrative approach, such as suspension and rectification, government-led takeover and cancellation of license, which usually led to public expenses. Lessons learned are that while institutions continue to deteriorate with growing risks until their exit, belated risk warning and poor results of rectification are two major reasons for failing to mitigate those risks at early stages. Lack of clarity in resolution responsibilities is also to be blamed for the accumulation of risks and excessively high costs. In addition, certain authorities appointed to take charge of the resolution may not necessarily bear the costs, and this asymmetry of power potentially hurt the safety of public funds such as the central bank funds.

III. Policy Recommendations to Improve the Financial Safety Net

The National Financial Work Conference in 2017 specifically asked to give higher priority to the prevention and mitigation of systemic financial risks in a proactive manner through a sequence of early designation, early warning, early identification and early resolution measures. The Conference also asked that efforts should be made to guard against risks in key areas, and to further enhance the financial safety line and crisis response framework.

Strengthen coordination among the three pillars. Having unified planning from the CPC Central Committee and the State Council, and direct accountability to the FSDC, financial authorities should work to ensure better policy coordination and information sharing among the three pillars, i.e. prudential regulation, the central bank as the lender of last resort and investor protection schemes. Prudential regulation requires increased supervisory effectiveness and coordination, and better data sharing to maintain healthy and orderly functioning of institutions and the financial market. Investor protection schemes need improvements in its interaction with the function of the lender of last resort. The central bank in performing its role as the lender of last resort needs to strike a delicate balance between defending the bottom line of no outbreaks of systemic risks and limiting moral hazard.

Unify varying measures for investor protection coverage. It is necessary for various investor protection funds to set appropriate criteria for investor protection coverage, depending on growth dynamics of the respective sector and features of products, to help eliminate perception of implicit guarantee, raise risk awareness among investors of the assumption of risks, strengthen discipline for financial institutions and investors, eliminate adverse incentives and regulatory arbitrage, curb moral hazard, and rectify market order.

Reinforce loss allocation and accountability mechanisms. An appropriate loss allocation mechanism calls for the assumption of losses in the sequence of the entity in resolution, pre-resolution shareholders, unsecured creditors, investor protection funds and public funds. This arrangement ensures that each party involved plays its due role in the resolution process, and that loss to the public funds is reduced in the principle of cost minimization. In addition, if there is an equity restructuring, the party initiated the restructuring may also, pursuant to relevant laws and regulations, be asked to take a loss. In the meantime, proper accountability should be put in place to hold shareholders and senior managers of financial institutions or staff members of financial management authorities accountable for possible wrongdoings including nonfeasance, misconducts and corruption. Those who have committed criminal offence should be transferred to the department of public security and justice and subject to criminal liabilities.

Promote the build-up of the market-based exit mechanism for financial institutions. Efforts should be made to explore the law-compliant voluntary exit mechanism and the multi-tiered exit routes by financial institutions, improve the overall transfer of assets, liabilities and businesses of financial institutions, and specify risk pre-warning and resolution procedures for financial institutions, especially details on triggers for risk resolution, exit-based resolution planning, and availability of a broader range of resolution tools. Deposit insurance fund and other investor protection funds can be given an active role in facilitating the exit of financial institutions. The deposit insurance fund can take a part through purchase and assumption (P&A), bridge bank, open bank assistance and deposit reimbursement tools, in order to protect depositors' rights, and maintain financial and social stability. Investor protection funds can be actively involved in the design and implementation of resolution plans.

Push to establish a long-term mechanism for risk prevention and mitigation. First, efforts should be accelerated to address regulatory and institutional gaps. These include the early materialization or implementation of the regulatory measures for financial holding companies and operationalised rules on strengthening regulation of systemically important financial institutions, to carry out group-wide supervision on financial holding groups, and develop a special resolution regime for addressing the issue of "too big to fail". Second, relevant agencies should draw out lessons from past experience and legacies of resolution cases, and adapt them to the practice and needs of risk resolution nowadays, so as to develop proper rules on the division of responsibilities and use of funds in the resolution process, and specify the lead resolution authority and the sequence of fund utilization. Third, efforts should be made to improve the current legal framework for risk resolution of financial institutions; promote the revision of the *Enterprise Bankruptcy Law*, *Law of the People's Bank of China*, *Law on Banking Regulation and Supervision, Law on Commercial Banks, Deposit Insurance Regulations* and regulatory measures for different investor protection funds; and enhance the coherent functioning of resolution roles played by regulators, the central bank, deposit insurance fund and various investor protection funds.

Special Topic 16 International Experiences in the Prompt Corrective Function of Deposit Insurance System

It has been decided by the National Financial Work Conference held in July 2017 that financial risks should be addressed in a scientific way by measures of early identification, early warning, early discovery and early resolution of financial risks, with a focus on strengthening the early warning and intervention mechanisms by authorities and forestalling financial risks in major areas. Meanwhile, according to *Deposit Insurance Regulations*, the deposit insurance system is mandated with prompt corrective and resolution functions, so that it can identify financial risks at an early stage and facilitate the execution of orderly resolution measures, to defuse risks gradually and to prevent the accumulation and contagion of such risks. From the perspective of international practices, in those countries where the deposit insurance system is well developed, the prompt corrective function of the deposit insurer has been well designed and implemented, with clearly prescribed trigger conditions and tools. It is important to review and study these countries' experiences so that we could improve the prompt corrective function of the deposit insurance system in China.

I. Lessons From the Savings and Loan (S&L) Crisis and Relevant Reforms

The inchoate mandate for the deposit insurer is limited to pay-box. In 1980s, the United States liberalized the interest rates, which encouraged many S&L associations to attract funds with exorbitant returns and to pursue risky businesses, ending up with the S&L crisis. During 1980-1994, there were 3000 S&L association and bank failures, with a loss of USD 924 billion. The Savings & Loan Insurance Fund was depleted and the Federal Savings &Loan Insurance Corporation went bankrupt. One lesson from the S&L crisis is that the design of the deposit insurance system should take into account the need to contain moral hazard, so as to authorize the deposit insurer to conduct examinations and impose relative restrictions on insured institutions, so that problem financial institutions could be resolved in a timely manner and the potential losses to depositors and deposit insurance fund can be minimized.

After drawing the experiences and lessons of the crisis, the United States issued the *Federal Deposit Insurance Corporation Improvement Act* in 1991, which reformed the deposit insurance system and enhanced the deposit insurer's mandate in taking prompt corrective actions. When the insured financial institutions failed and threatened the safety of the deposit insurance fund, the deposit insurer can intervene promptly and take corrective actions based on the risk grades of financial institutions on a mandatory basis. On top of this, in order to strengthen the resolution efficiency, when the CAR of an insured financial institution fell below 2 percent, the FDIC shall take over the institution on a mandatory basis and initiate the relevant resolution process. The reform further enhanced the FDIC's role and responsibilities in ex ante intervention, timely takeover and ex post resolution, so that it can prevent and address potential risks to fulfill its risk-minimizing function.

After the 2008 Global Financial Crisis, more and more jurisdictions introduced or enhanced the prompt corrective mandates of their deposit insurers, on the purpose of reducing potential losses through early identifying and reducing risks. Under the principle of "rectification or takeover", the deposit insurer should identify problem banks and take corrective measures, including requiring them to replenish capital, or control asset growth and risky business expansion. For those financial institutions that could not meet the rectification requirements within the given time limit, the deposit insurer should take over promptly and take resolution measures. According to the relevant guidelines issued by IADI in 2013, as one of the major stakeholders of banks, deposit insurers should be authorized with the prompt corrective function so that they could identify risks and carry out various resolution measures in a timely manner, to stabilize market confidence.

II. International Procedure of Prompt Correction by Deposit Insurers

In the U.S., according to the general process which starts with the prompt corrective actions and then evolves into the resolution stage, when an insured bank is critically undercapitalized (for example, CAR falls below 2 percent), the deposit insurer would send a notification letter of prompt correction to the bank and require the bank to raise capital within a certain period (usually 90 days) to address relevant risks. Meanwhile, the deposit insurer would send its resolution team on site to conduct the verification and evaluation of the assets and liabilities of the bank, streamline its business lines, and prepare for the tender for purchase and assumption. If the bank failed to meet the deposit insurer's requirements within 90 days, then the "Friday-to-Monday" resolution mechanism will be initiated where the deposit insurer shall take over the problem bank on Friday and transfer its assets and deposits to healthy insured financial institutions, so as to ensure the business of the failed bank reopening on next Monday and to avoid the disruption to financial services and markets (Figure 3.3).

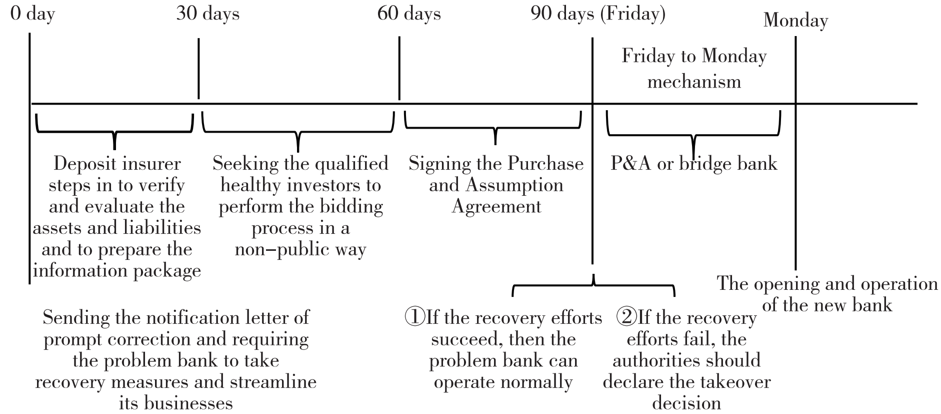
1. Sending a notification letter of prompt correction to the problem bank and requiring it to take recovery measures. The deposit insurer can take formal or informal corrective actions based on the seriousness of the risks of the insured institution. For an institution that is critically undercapitalized, the deposit insurer can send the notification letter and require the institution to take recovery measures including replenishing capital and containing risky businesses. Meanwhile, the resolution team will be informed to make relevant preparations for the potential takeover.

2. Performing the verification and evaluation of assets and liabilities of the problem bank, preparing the information package and requiring the bank to streamline its businesses. After the problem bank receives the notification letter, a resolution team of the deposit insurer shall step into the bank to collect relevant asset and liabilities information, prepare the information package and delegate third-party intermediaries to perform the verification and evaluation. During this period, the problem bank can take recovery measures by introducing strategic investors, selling assets and augmenting equities. If recovery measures work well within 90 days, the potential resolution can be postponed.

3. Qualified investors can bid for the problem bank's assets and liabilities in a non-public way and sign the Purchase and Assumption Agreement. The resolution team of the deposit insurer shall propose multiple purchase and assumption strategies for the problem bank and seek qualified healthy financial institutions as investors through competitive negotiation and non-public bidding. Finally, the deposit insurer can decide on the purchase and assumption party for the problem bank under the principle of least cost and sign the Purchase and Assumption Agreement with the acquirer. To encourage investors' participation, loss allocation mechanisms may be included in the Agreement. In case that no appropriate acquirer can be found at the moment, a bridge bank may be established by the deposit insurer to temporarily acquire the businesses.

4. If the recovery efforts by the problem bank fail, the takeover will be implemented and the "Friday to Monday" mechanism will be initiated. If the recovery efforts by the problem bank fail after 90 days, the deposit insurer shall make a formal proposal to the supervisory authority to take over the problem bank and initiate the "Friday-to-Monday" mechanism. On the weekend of the takeover, the insured deposits and business outlets of the failed bank shall be transferred to the acquirer, so that the business outlets can be reopened on next Monday and the acquirer can continue to deliver essential financial services including deposit, withdrawal and transfer of money.

Figure 3.3 Prompt Corrective process of the Deposit Insurance



Special Topic 17 Establishing Chinese TLAC Requirement Framework

In November 2015, the FSB issued the *Total Loss-absorbing Capacity (TLAC) Term Sheet* for G-SIBs. As G-SIBs headquartered in an emerging market economy, the ICBC, ABC, BOC and CCB will be subject to TLAC requirements in a two-step manner since 2025 at latest. At the present time, the four Chinese G-SIBs have large TLAC shortfalls, indicating significant pressure of implementation. So there is an urgent need for establishing the Chinese TLAC requirement framework to help the four Chinese G-SIBs to meet the TLAC standard as required.

I. Transposition of the TLAC Standard in Policy Frameworks by Other Jurisdictions

According to the *TLAC Term Sheet*, for G-SIBs that are not headquartered in emerging market economies, the minimum TLAC requirement is 16 percent of the risk weighted assets (RWA) and 6 percent of the Basel III leverage ratio denominator as from 1 January 2019, and 18 percent of the RWA and 6.75 percent of the Basel III leverage ratio denominator as from 1 January 2022. China as an emerging market economy could comply with the standard 6 years later, namely meeting the above requirements since 2025 and 2028 at latest, respectively.

The *TLAC Term Sheet* is fundamental and general, and regulatory authorities of different jurisdictions should transpose the standard into detailed and operational implementation plans. Authorities could set add-on requirements based on the FSB standard, in light of their domestic situation. In 2018, there were altogether 29 G-SIBs, with 8 headquartered in the U.S., 4 in China, 4 in France, 3 in the U.K., 3 in Japan, 2 in Switzerland, and 1 in Germany, Italy, Netherlands, Spain and Canada, respectively. So far, the U.S., EU, U.K., Switzerland, Japan and Canada have released their final TLAC implementation frameworks, but China has not yet worked out the operational plan.

In terms of subordination of TLAC instruments, the above jurisdictions mainly rely on three approaches to meet the TLAC requirements. First is the statutory subordination, where it is written in laws and regulations that TLAC eligible instruments rank junior in the statutory creditor hierarchy to other liabilities on the balance sheets of resolution entities. Second is contractual subordination, where it is written in contracts that TLAC eligible instruments are subordinated to other liabilities on the balance sheets of resolution entities. Third is structural subordination, where TLAC eligible instruments are issued by non-operating holding companies with no other liabilities on their balance sheets that rank pari passu or junior to TLAC eligible instruments. Currently, Germany and Italy take the statutory subordination approach, France and Spain use the contractual approach, and the U.S., U.K., Switzerland and Japan use the structural approach.

1. U.S.

In December 2016, the Federal Reserve released the U.S. final rule on TLAC implementation, whose requirements are obviously stricter than the FSB, in the following aspects:

First, canceling the phase-in period. According to the FSB, full TLAC implementation adopts a phase-in period from 2019 to 2022, with the minimum TLAC requirement being 16 percent of the RWA and 6 percent of the Basel III leverage ratio denominator as from 1 January 2019, and 18 percent and 6.75 percent as from 1 January 2022, respectively. The U.S. rule does not adopt this phase-in period, which means the TLAC requirement being 18 percent of the RWA and 7.5 percent of the leverage ratio denominator as from 1 January 2019.

Second, introducing requirements on long-term debts (LTD). The FSB gives regulatory expectations about the proportion that debt instruments should take up in TLAC, while the Fed makes compulsory requirements about LTD size. Eligible LTD should be unsecured, be "plain vanilla" (i.e. with no complex features that would interfere with its loss-absorbing capacity), have a remaining maturity of more than one year, be subject to U.S. law, and be able to be converted into equity to absorb losses in resolution. In order to reduce the TLAC shortfalls effectively, the Fed's final rule grandfathers LTD issued on or before December 31, 2016, that contains impermissible acceleration clauses or that is subject to foreign law.

Third, making different regulatory requirements for U.S. intermediate holding companies of foreign G-SIBs (IHCs) from those for U.S. G-SIBs. Considering the influence of different resolution strategies on IHC loss-absorbing capacity, the Fed also further differentiates between IHCs with single-point-of-entry resolution strategies and IHCs with multiple-point-of-entry strategies.

2. Japan

The Financial Services Agency of Japan (JFSA) published the final TLAC rule in 2019, which is largely in line with the FSB standard. The three Japanese G-SIBs should meet the respective requirements as from 31 March 2019 and 31 March 2022, while Japanese D-SIBs shall comply two years later. JFSA did not announce an explicit requirement on proportion of debt instruments, but if the debt instruments account for less than 33 percent, the JFSA will closely monitor the bank's remediation plan.

According to the section 7 of the FSB *TLAC Term Sheet*, certain "credible ex-ante commitments" may count towards a firm's minimum TLAC, subject to the agreement of the relevant authorities, and so long as there are no legal impediments to doing so, including that there is no requirement that senior creditors are exposed to loss when such a contribution is made, and that there is no particular limit specified in law in respect of the amount which may be contributed. Such commitments must be pre-funded by industry contributions and may account for an amount equivalent to 2.5% RWA toward the resolution entity's Minimum TLAC when the TLAC RWA Minimum is 16% and for an amount equivalent to 3.5% RWA when the RWA Minimum is 18%. The Japanese Deposit Insurance Fund meets the above conditions for "credible ex-ante commitments", so the JFSA allows the Japanese G-SIBs to count the relevant amount within limits as eligible TLAC instruments. As of the end of March 2019, the balance of the Japanese Deposit Insurance Fund stood at JPY 4 trillion, sufficiently covering 2.5 percent of RWA of the three Japanese G-SIBs.

3. EU

In June 2019, EU released the amended *Capital Requirements Regulation* (CRR II), adding TLAC requirements in line with the FSB standard to the existing minimum requirements for own funds and eligible liabilities (MREL). As the TLAC standard and the MREL should be complementary, these two are different in the following way:

First, MREL has larger coverage. While the TLAC standard only covers G-SIBs, MREL applies to all European banks, non-EU G-SIBs and non-EU institutions that operate in EU with assets over EUR 30 billion, as covered by the EU *Bank Recovery and Resolution Directive (BRRD)*.

Second, the regulation makes different regulatory requirements on G-SIBs and non-G-SIBs. For G-SIBs, the MREL makes the same requirements as the FSB TLAC standard. But for non-G-SIBs, there is not a uniform standard, where regulatory authorities determine the specific requirements for banks in their own territories. Moreover, MREL should account for more than 8 percent of the total assets.

Third, the MREL criteria for eligible liabilities are stricter than those of the FSB. Eligible liabilities against the MREL requirements should be converted to equity or written down in bail-in on the principle of "no creditor worse off than in liquidation", a criterion higher than that of the FSB TLAC standard on eligible liabilities.

II. Challenges to Implementing TLAC Requirements in China

As the FSB member, China actively participated in the development and promulgation of the TLAC framework, and achieved the favorable policy of postponed TLAC implementation by 6 years for the G-SIBs headquartered in emerging market economies. But the conformance period will be accelerated if the aggregate amount of the economy's financial and non-financial corporate debt securities or bonds outstanding exceeds 55% of its GDP, and the G-SIBs will have 3 years to meet the requirement after acceleration term being triggered. This metric will be measured each November until November 2020, and the appropriateness of the threshold will be subject to review in 2019. As of the end of 2017, the proportion of China's total corporate debt securities or bonds outstanding to its GDP stood at 49 percent, not triggering the acceleration term yet.

According to the FSB standard, the minimum TLAC requirements for ICBC, ABC, BOC and CCB should be 20 percent, 19.5 percent, 20 percent and 19.5 percent respectively as from the beginning of 2025, based on their allocation in buckets in the 2018 G-SIBs list, and 22 percent, 21.5 percent, 22 percent and 21.5 percent respectively as from the beginning of 2028. Annual reports of these four banks indicate that their CARs are 15.39 percent, 15.12 percent, 14.97 percent and 17.19 percent, respectively. If we assume that these four banks maintain a certain asset growth pace, and take into account such factors that the future net income can be used to replenish capital after having been paid as dividends, that off-balance sheet businesses shall be transferred back on balance sheets, and that banks are trying to shrink assets, the primary estimation of TLAC shortfalls of the four G-SIBs will be large, and there is significant pressure for them to meet the TLAC requirements in time.

III. Establishing Chinese TLAC Requirement Framework

Currently, relevant Chinese authorities are working on our TLAC rule, with the following consideration:

TLAC–related indicators and minimum regulatory requirements. The two TLAC-related indicators for G-SIBs include the RWA ratio and the leverage denominator ratio. The former ratio for the four banks should not be lower than 16 percent as from 1 January 2025 and 18 percent as from 1 January 2028, and should also help to satisfy the requirements on capital conservation buffer, countercyclical buffer and higher loss absorbency (HLA) for SIBs. The latter ratio should not be lower that 6 percent as from 1 January 2025 and 6.75 percent as from 1 January 2028.

TLAC composition and eligibility criteria. The eligibility criteria for capital instruments and non-capital debt instruments would be defined respectively. Eligible capital instruments should meet requirements of both the *Capital Rules for Commercial Banks (Provisional)* and the FSB standard. Eligibility criteria for non-capital debt instruments will be further defined after prescribing the debt liabilities that are excluded from TLAC.

TLAC deduction treatment. In order to reduce the risk of contagion, the future rule should make clear the TLAC deduction treatment about TLAC instruments held among G-SIBs and a G-SIB's holdings of its own TLAC instruments as well as banks' investments in small-amount minority interests and large-amount minority interests , in line with the BCBS *TLAC Holdings Standard* and the *Capital Rules for Commercial Banks (Provisional)*.

Supervisory and examination requirements. G-SIBs should report relevant data to supervisory and management authorities to show their conformance. The authorities could take prudential measures against banks that fall short of the regulatory requirements, so as to improve their loss-absorbing capacity.

Due to the tight schedule for Chinese G-SIBs to implement TLAC requirements, relevant authorities would cooperate closely to work out the TLAC rule as early as possible. Comprehensive measures would also be taken to lay down favorable conditions for Chinese G-SIBs in timely TLAC implementation, based on systemic researches and planning.

Appendix

Statistics

Table 1 Selected Economic Indicators

Items	2014	2015	2016	2017	2018
Gross Domestic Product (RMB 100 million)	643 974	679 052	744 127	820 754	900 309
Industrial Value Added	227 991	228 974	247 860	279 997	305 160
Fixed Asset Investment (RMB 100 million)	512 761	562 000	606 466	641 238	645 675
Retail Sales of Consumer Goods (RMB 100 million)	262 394	300 931	332 316	366 262	380 987
Exports & Imports (USD 100 million)	264 334	245 741	243 386	277 923	305 050
Exports	143 912	141 255	138 455	153 321	164 177
Imports	120 423	104 485	104 932	124 602	140 874
Balance	23 489	36 770	33 523	28 718	23 303
Foreign Direct Investment (USD 100 million)	1 196	1 263	1 260	1 310	1 350
Foreign Exchange Reserves (USD 100 million)	38 430	33 304	30 105	31 399	30 727
Consumer Price Index (previous year=100)	102.0	101.4	102.0	101.6	102.1
Fiscal Revenue (RMB 100 million)	140 370	152 269	159 605	172 593	183 360
Fiscal Expenditure (RMB 100 million)	151 786	175 878	187 755	203 085	220 904
Per Capita Urban Household Disposable Income (RMB)	28 844	31 195	33 616	36 396	39 251
Per Capita Rural Household Disposable Income (RMB)	10 489	11 422	12 363	13 432	14 617
Number of Employed Persons in Urban Areas (million)	393.1	404.1	414.3	424.6	434.2
Registered Unemployment Rate in Urban Areas(%)	4.09	4.05	4.02	3.9	3.8
Total Population (million)	1 367.8	1 374.6	1 382.7	1 390.1	1 395.4

Note: ① GDP from 2014 to 2017 is verified and final, and GDP in 2018 is preliminary.

② From 2016, the calculation methodology of the GDP has been revised by the National Bureau of Statistics of China, and the historical GDP data from 1952 to 2015 have been revised accordingly. The data in the table are after revision.

Source: Calculated on the basis of data from *China Statistical Year Book and Statistical Communique of The People's Republic of China on the National Economic and Social Development*.

Table 2 Selected Financial Indicators (1)

(Year-end Balance)

(RMB 100 million)

Items	2014	2015	2016	2017	2018
Money & Quasi-money (M_2)	1 228 374.8	1 392 278.1	1 550 067	1 676 768.5	1 826 744.2
Money (M_1)	348 056.4	400 953.4	486 557	543 790.1	551 685.9
Currency in Circulation (M_0)	60 259.5	63 217.6	68 304	70 645.6	73 208.4
Total Deposits with Financial Institutions	1 138 644.6	1 357 021.6	1 505 864	1 641 044.2	1 775 225.7
Household Deposits	485 261.3	526 281.8	569 149	595 972.6	631 202.4
Non-financial Enterprise Deposits	378 333.8	430 247.4	502 178	542 404.6	562 976.2
Total Lending by Financial Institutions	816 770.0	939 540.2	1 066 040	1 201 321.0	1 362 966.7

Source: The PBC.

Table 3 Selected Financial Indicators (2)

(Growth Rates)

(percent)

Items	2014	2015	2016	2017	2018
Money & Quasi-money (M_2)	12.2	13.3	11.3	8.2	8.1
Money (M_1)	3.2	15.2	21.4	11.8	1.5
Currency in Circulation (M_0)	2.9	4.9	8.1	3.4	3.6
Total Deposits with Financial Institutions	9.1	12.4	11.0	9.0	8.2
Household Deposits	8.4	8.5	8.2	4.7	5.9
Non-financial Enterprise Deposits	4.6	13.7	16.7	8.0	3.8
Total Lending by Financial Institutions	13.6	14.3	13.5	12.7	13.5

Note: Growth rates have been adjusted to reflect recent changes in statistical coverage.

Source: The PBC.

Table 4 International Liquidity

(USD million)

Items	2014	2015	2016	2017	2018
Total Reserves (minus gold)	3 853 760	3 345 193	3 029 775	3 158 877	3 091 881
Special Drawing Rights (SDRs)	10 456	10 284	9 661	10 981	10 690
IMF Reserve Position	286	4 547	9 597	7 947	8 479
Foreign Exchange	3 843 018	3 330 362	3 010 517	3 139 949	3 072 712
Gold (1 million ounces)	34	57	59	59	60
Gold (national valuation)	9 815	60 191	67 878	76 473	76 331
Foreign Liabilities of Other Depository Corporations	409 995	199 865	182 683	313 413	304 431

Note:The gold (national valuation) Since 2016 is market value, which cannot be compared with data of previous years.

Source: The PBC.

Table 5 Gold and Foreign Exchange Reserves

Year	Gold Reserves (10 thousand ounces)	Foreign Exchange Reserves (USD 100 million)	Change in Foreign Exchange Reserves (percent)
2000	1 267	1 655.7	7.0
2001	1 608	2 121.7	28.1
2002	1 929	2 864.1	35.0
2003	1 929	4 032.5	40.8
2004	1 929	6 099.3	51.3
2005	1 929	8 188.7	34.3
2006	1 929	10 663.4	30.2
2007	1 929	15 282.5	43.3
2008	1 929	19 460.3	27.3
2009	3 389	23 991.5	23.3
2010	3 389	28 473.4	18.7
2011	3 389	31 811.5	10.7
2012	3 389	33 115.9	4.1
2013	3 389	38 213.2	15.4
2014	3 389	38 430.2	0.6
2015	5 666	33 303.6	–13.3
2016	5 924	30 105.2	–9.6
2017	5 924	31 399.5	4.3
2018	5 956	30 727.1	–2.1

Source: The PBC.

Table 6 Assets of China's Financial Sector

(December 31, 2018)

(RMB trillion)

Type of Financial Institutions	Assets
Financial Sector	329.14
Central Bank	37.25
Banking Financial Institutions	268.24
Securities Financial Institutions	5.32
Insurance Financial Institutions	18.33

Note: Assets of securities financial institutions refer to assets of securities companies, with assets of clients excluded.

Source: Calculated by the Financial Stability Analysis Group of PBC.

Table 7 Depository Corporations Survey in 2018

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Net Foreign Assets	255 448.39	257 146.55	256 693.98	255 736.06
Domestic Credits	1 841 752.74	1 873 240.25	1 927 674.49	1 965 451.37
Claims on Government(net)	214 980.98	220 422.83	238 969.72	251 378.34
Claims on Non-financial Sectors	1 338 831.03	1 373 057.60	1 423 654.66	1 450 736.66
Claims on other Financial Sectors	287 940.74	279 759.82	265 050.11	263 336.37
Money & Quasi-money	1 739 859.48	1 770 178.37	1 801 665.58	1 826 744.22
Money	523 540.07	543 944.71	538 574.08	551 685.91
Currency in Circulation	72 692.63	69 589.33	71 254.26	73 208.40
Corporate Demand Deposits	450 847.45	474 355.38	467 319.82	478 477.50
Quasi-money	1 216 319.40	1 226 233.66	1 263 091.50	1 275 058.31
Corporate Time Deposits	332 605.89	334 425.29	349 826.79	340 178.91
Personal Deposits	692 563.69	692 440.77	706 256.25	721 688.57
Other Deposits	191 149.82	199 367.60	207 008.46	213 190.83
Deposits Excluded from Broad Money	48 087.93	47 684.68	46 714.11	45 211.42
Bonds	230 069.30	236 917.40	242 695.69	255 387.56
Paid-in Capital	52 127.82	53 052.16	53 577.82	54 432.45
Other Items (net)	27 056.60	22 554.19	39 715.28	39 411.78

Source: The PBC.

Table 8 Balance Sheet of Monetary Authority in 2018

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	220 277.91	220 183.33	218 810.54	217 648.06
Foreign Exchange	214 952.04	215 193.78	214 084.15	212 556.68
Monetary Gold	2 541.50	2 541.50	2 541.50	2 569.79
Other Foreign Asstes	2 784.37	2 448.05	2 184.89	2 521.59
Claims on Government	15 274.09	15 274.09	15 274.09	15 250.24
of Which: Central Government	15 274.09	15 274.09	15 274.09	15 250.24
Claims on Other Depository Corporations	99 901.88	103 424.01	109 333.36	111 517.46
Claims on Other Financial Corporations	5 949.94	5 947.94	5 956.83	4 642.60
Claims on Non-financial Sector	35.65	54.37	45.02	27.84
Other Assets	18 168.93	17 818.71	16 809.91	23 405.85
Total Assets	**359 608.40**	**362 702.44**	**366 229.75**	**372 492.06**
Reserve Money	321 350.16	318 471.19	317 918.35	330 956.52
Currency Issue	79 452.59	75 657.75	78 117.23	79 145.50
Deposits of Financial Corporations	238 740.05	237 805.08	231 051.12	235 511.22
Deposits of Other Depository Corporations	238 740.05	237 805.08	231 051.12	235 511.22
Other Financial Corporations	0	0	0	0
Deposits of Non-financial Corporations	3 157.52	5 008.36	8 749.99	16 299.80
Deposits of Financial Corporations Excluded from Reserve Money	4 168.46	3 746.50	3 549.03	4 016.33
Bond Issue	0	0	0	200.00
Foreign Liabilities	928.59	1 117.80	2 049.55	1 164.51
Deposits of Government	26 373.97	32 041.47	34 794.98	28 224.74
Own Capital	219.75	219.75	219.75	219.75
Other Liabilities	6 567.48	7 105.73	7 698.09	7 710.20
Total Liabilities	**359 608.40**	**362 702.44**	**366 229.75**	**372 492.06**

Source: The PBC.

Table 9 Balance Sheet of Other Depository Corporations in 2018

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	55 832.74	57 794.57	59 781.76	60 146.25
Reserve Assets	244 963.13	244 261.40	238 906.92	243 160.75
Deposits with Central Bank	238 203.17	238 192.99	232 043.95	237 223.65
Cash in Vault	6 759.96	6 068.41	6 862.97	5 937.10
Claims on Government	226 080.86	237 190.21	258 490.61	264 352.83
Of Which: Central Government	226 080.86	237 190.21	258 490.61	264 352.83
Claims on Central Bank	0	0	0	0
Claims on Other Depository Corporations	283 166.59	282 344.92	280 218.03	287 239.04
Claims on Other Financial Institutions	281 990.80	273 811.88	259 093.28	258 693.77
Claims on Non-financial Institutions	921 704.53	937 323.23	967 286.96	977 946.45
Claims on Other Resident Sectors	417 090.85	435 680.00	456 322.69	472 762.37
Other Assets	101 405.82	101 297.61	100 213.90	103 033.45
Total Assets	**2 532 235.32**	**2 569 703.82**	**2 620 314.15**	**2 667 334.90**
Liabilities to Non-financial Institutions and Households	1 573 169.12	1 591 689.75	1 624 130.19	1 641 200.71
Deposits Included in Broad Money	1 476 017.03	1 501 221.44	1 523 402.86	1 540 344.99
Corporate Demand Deposits	450 847.45	474 355.38	467 319.82	478 477.50
Corporate Time Deposits	332 605.89	334 425.29	349 826.79	340 178.91
Personal Deposits	692 563.69	692 440.77	706 256.25	721 688.57
Deposits Excluded from Broad Money	48 087.93	47 684.68	46 714.11	45 211.42
Transferable Deposits	15 642.98	15 028.96	14 651.96	15 355.91
Other Deposits	32 444.96	32 655.72	32 062.15	29 855.51
Other Liabilities	49 064.16	42 783.62	54 013.21	55 644.31
Liabilities to Central Bank	95 168.10	94 314.95	99 761.61	104 474.77
Liabilities to Other Depository Corporations	112 176.00	110 739.06	107 847.99	108 915.86
Liabilities to Other Financial Corporations	179 402.83	184 889.67	182 568.64	184 310.60
Of Which: Deposits Included in Broad Money	175 839.38	181 610.05	177 897.24	179 374.61
Foreign Liabilities	19 733.67	19 713.55	19 848.77	20 893.74
Bond Issue	230 069.30	236 917.40	242 695.69	255 387.56
Paid-in Capital	51 908.07	52 832.40	53 358.06	54 212.70
Other Liabilities	270 608.23	278 607.05	290 103.21	297 938.96
Total Liabilities	**2 532 235.32**	**2 569 703.82**	**2 620 314.15**	**2 667 334.90**

Source: The PBC.

Table 10 Balance Sheet of Chinese-funded Large Banks in 2018

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	30 975.78	31 919.00	32 887.66	32 428.36
Reserve Assets	127 903.44	126 423.37	124 009.04	117 998.78
Deposits with Central Bank	124 290.74	123 221.07	120 342.69	114 843.67
Cash in Vault	3 612.70	3 202.29	3 666.35	3 155.11
Claims on Governments	145 469.39	153 150.40	165 962.89	169 057.01
Of Which: Central Government	145 469.39	153 150.40	165 962.89	169 057.01
Claims on Central Bank	0	0	0	0
Claims on Other Depository Corporations	107 666.83	105 551.33	104 842.31	103 994.14
Claims on Other Financial Corporations	64 342.59	63 249.91	62 199.18	62 477.33
Claims on Non-financial Corporations	465 839.19	467 388.41	483 710.02	486 979.20
Claims on Other Resident Sectors	215 652.48	223 672.82	231 686.79	237 932.55
Other Assets	47 519.73	46 551.32	45 129.66	44 609.30
Total Assets	**1 205 369.44**	**1 217 906.56**	**1 250 427.55**	**1 255 476.67**
Liabilities to Non-financial Institutions and Households	819 739.26	821 637.93	838 797.41	835 134.14
Deposits Included in Broad Money	755 247.17	762 374.47	770 529.30	766 506.97
Corporate Demand Deposits	222 198.15	234 996.74	231 896.63	229 781.36
Corporate Time Deposits	128 336.07	127 376.10	130 761.17	124 589.36
Personal Deposits	404 712.95	400 001.63	407 871.50	412 136.25
Deposits Excluded from Broad Money	24 836.76	24 568.78	23 786.68	22 554.47
Transferable Deposits	7 393.15	6 924.16	7 050.01	7 125.50
Other Deposits	17 443.61	17 644.62	16 736.67	15 428.97
Other Liabilities	39 655.34	34 694.67	44 481.44	46 072.70
Liabilities to Central Bank	51 007.64	48 232.50	50 342.56	51 163.47
Liabilities to Other Depository Corporations	16 623.69	19 242.88	21 047.30	23 530.02
Liabilities to Other Financial Corporations	65 090.68	70 016.32	72 630.29	69 785.71
Of Which: Deposits Included in Broad Money	64 139.05	68 846.05	71 479.50	68 493.76
Foreign Liabilities	7 873.93	7 197.85	7 433.75	8 440.40
Bond Issue	95 875.81	98 570.42	102 212.66	105 419.59
Paid-in Capital	21 718.17	22 097.28	22 199.22	22 193.02
Other Liabilities	127 440.25	130 911.37	135 764.37	139 810.33
Total Liabilities	**1 205 369.44**	**1 217 906.56**	**1 250 427.55**	**1 255 476.67**

Source: The PBC.

Table 11 Balance Sheet of Chinese-funded Medium-Sized Banks in 2018

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	20 982.48	21 709.55	22 703.17	23 270.91
Reserve Assets	40 702.47	41 465.90	39 049.57	40 679.94
Deposits with Central Bank	40 136.18	40 945.48	38 528.97	40 141.87
Cash in Vault	566.28	520.43	520.60	538.07
Claims on Governments	47 653.59	49 752.21	53 968.47	54 924.69
Of Which: Central Government	47 653.59	49 752.21	53 968.47	54 924.69
Claims on Central Bank	0	0	0	0
Claims on Other Depository Corporations	40 316.43	41 327.03	40 270.08	43 055.84
Claims on Other Financial Corporations	99 879.98	97 733.14	87 851.78	89 387.94
Claims on Non-financial Corporations	220 714.32	227 107.63	230 935.69	231 884.67
Claims on Other Resident Sectors	97 902.90	102 998.26	109 593.58	115 301.68
Other Assets	18 737.87	19 265.20	17 805.77	20 562.71
Total Assets	**586 890.04**	**601 358.92**	**602 178.11**	**619 068.37**
Liabilities to Non-financial Institutions and Households	269 819.75	276 862.17	280 012.80	282 198.81
Deposits Included in Broad Money	250 931.77	258 779.77	261 441.60	264 372.84
Corporate Demand Deposits	102 440.84	106 540.03	101 709.39	104 897.56
Corporate Time Deposits	97 287.09	97 894.58	104 344.90	101 411.48
Personal Deposits	51 203.84	54 345.16	55 387.30	58 063.80
Deposits Excluded from Broad Money	15 066.97	15 313.74	15 217.64	14 630.74
Transferable Deposits	4 937.95	4 826.59	4 457.07	4 615.10
Other Deposits	10 129.02	10 487.14	10 760.58	10 015.64
Other Liabilities	3 821.02	2 768.67	3 353.57	3 195.23
Liabilities to Central Bank	35 524.50	36 325.10	38 789.60	39 696.40
Liabilities to Other Depository Corporations	34 800.29	35 431.93	31 751.71	34 693.57
Liabilities to Other Financial Corporations	74 777.25	75 116.91	70 476.72	72 246.04
Of Which: Deposits Included in Broad Money	73 468.23	73 903.02	68 171.66	69 944.49
Foreign Liabilities	6 190.63	6 453.44	6 265.18	6 373.67
Bond Issue	96 829.34	100 167.71	101 501.70	107 575.33
Paid-in Capital	6 221.42	6 295.71	6 329.87	6 395.56
Other Liabilities	62 726.86	64 705.95	67 050.54	69 888.98
Total Liabilities	**586 890.04**	**601 358.92**	**602 178.11**	**619 068.37**

Source: The PBC.

Table 12 Balance Sheet of Chinese-funded Small Banks in 2018

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	1 622.34	1 615.40	1 578.31	1 766.00
Reserve Assets	60 714.37	60 325.46	59 770.95	66 328.89
Deposits with Central Bank	58 730.07	58 493.49	57 664.71	64 498.63
Cash in Vault	1 984.31	1 831.98	2 106.24	1 830.26
Claims on Governments	29 350.79	30 694.99	34 285.56	35 997.70
Of Which: Central Government	29 350.79	30 694.99	34 285.56	35 997.70
Claims on Central Bank	0	0	0	0
Claims on Other Depository Corporations	89 991.49	90 389.01	89 218.51	92 540.26
Claims on Other Financial Corporations	108 502.01	103 220.33	98 641.33	97 963.04
Claims on Non-financial Corporations	180 762.11	188 116.14	197 444.56	204 553.32
Claims on Other Resident Sectors	84 394.64	89 748.45	95 970.79	101 279.66
Other Assets	19 017.33	19 437.69	20 615.79	21 378.47
Total Assets	**574 355.09**	**583 547.46**	**597 525.80**	**621 807.34**
Liabilities to Non-financial Institutions and Households	373 481.39	382 248.81	391 974.23	408 501.16
Deposits Included in Broad Money	365 654.50	374 688.34	383 900.33	400 134.92
Corporate Demand Deposits	96 210.28	100 243.61	100 249.73	103 423.07
Corporate Time Deposits	76 457.98	78 492.12	81 283.97	83 600.52
Personal Deposits	192 986.24	195 952.60	202 366.63	213 111.33
Deposits Excluded from Broad Money	3 942.13	3 514.01	3 412.64	3 359.29
Transferable Deposits	999.41	893.28	860.81	979.79
Other Deposits	2 942.72	2 620.73	2 551.84	2 379.50
Other Liabilities	3 884.77	4 046.46	4 661.26	5 006.95
Liabilities to Central Bank	7 593.51	8 586.23	9 608.88	12 397.55
Liabilities to Other Depository Corporations	48 390.29	44 366.04	43 577.20	40 430.36
Liabilities to Other Financial Corporations	38 021.05	38 302.63	37 891.97	40 728.76
Of Which: Deposits Included in Broad Money	37 165.89	37 629.80	36 990.05	39 696.79
Foreign Liabilities	924.20	965.73	1 116.17	1 150.95
Bond Issue	37 036.32	37 754.37	38 400.04	41 757.17
Paid-in Capital	15 140.64	15 474.23	15 792.36	16 546.38
Other Liabilities	53 767.67	55 849.41	59 164.97	60 295.01
Total Liabilities	**574 355.09**	**583 547.46**	**597 525.80**	**621 807.34**

Source: The PBC.

Table 13 Balance Sheet of Foreign-funded Banks in 2018

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	2 042.79	2 328.41	2 380.17	2 452.41
Reserve Assets	3 045.00	2 985.35	2 832.29	3 286.71
Deposits with Central Bank	3 037.94	2 978.57	2 826.24	3 280.60
Cash in Vault	7.06	6.77	6.05	6.12
Claims on Governments	2 020.37	2 028.15	2 584.27	2 681.34
Of Which: Central Government	2 020.37	2 028.15	2 584.27	2 681.34
Claims on Central Bank	0	0	0	0
Claims on Other Depository Corporations	5 926.06	5 892.65	5 271.03	5 843.78
Claims on Other Financial Corporations	3 825.89	3 848.67	3 847.03	3 745.44
Claims on Non-financial Corporations	12 082.05	12 009.17	12 367.27	11 648.67
Claims on Other Resident Sectors	1 253.96	1 283.27	1 340.21	1 451.93
Other Assets	12 604.10	12 596.29	13 217.80	13 066.42
Total Assets	**42 800.22**	**42 971.95**	**43 840.06**	**44 176.72**
Liabilities to Non-financial Institutions and Households	17 732.04	17 378.10	17 467.85	18 385.53
Deposits Included in Broad Money	12 908.92	12 864.83	12 701.45	13 699.84
Corporate Demand Deposits	3 876.34	4 151.63	3 649.92	4 837.13
Corporate Time Deposits	7 785.78	7 499.07	7 804.65	7 564.54
Personal Deposits	1 246.80	1 214.13	1 246.88	1 298.17
Deposits Excluded from Broad Money	3 210.71	3 335.84	3 346.68	3 461.05
Transferable Deposits	1 668.20	1 776.81	1 749.01	1 875.52
Other Deposits	1 542.50	1 559.03	1 597.67	1 585.53
Other Liabilities	1 612.41	1 177.43	1 419.72	1 224.63
Liabilities to Central Bank	91.33	225.59	81.85	144.34
Liabilities to Other Depository Corporations	3 136.50	2 831.70	2 884.12	2 341.79
Liabilities to Other Financial Corporations	903.03	1 042.67	1 100.38	1 115.97
Of Which: Deposits Included in Broad Money	772.45	936.03	938.32	1 003.73
Foreign Liabilities	4 735.07	5 072.66	5 010.53	4 903.62
Bond Issue	208.03	322.74	445.91	549.38
Paid-in Capital	1 830.06	1 835.39	1 872.62	1 877.84
Other Liabilities	14 164.17	14 263.11	14 976.82	14 858.25
Total Liabilities	**42 800.22**	**42 971.95**	**43 840.06**	**44 176.72**

Source:The PBC.

Table 14 Balance Sheet of Rural Credit Cooperatives in 2018

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	3.57	3.17	7.16	6.98
Reserve Assets	9 798.08	10 020.83	9 845.82	11 288.96
Deposits with Central Bank	9 208.48	9 514.44	9 282.10	10 881.43
Cash in Vault	589.59	506.40	563.72	407.53
Claims on Governments	1 527.90	1 504.80	1 620.85	1 627.19
Of Which: Central Government	1 527.90	1 504.80	1 620.85	1 627.19
Claims on Central Bank	0	0	0	0
Claims on Other Depository Corporations	21 761.65	20 486.49	19 708.69	16 428.53
Claims on Other Financial Corporations	2 267.74	1 874.12	1 739.01	1 453.87
Claims on Non-financial Corporations	17 876.15	17 553.32	17 021.68	15 546.67
Claims on Other Resident Sectors	16 603.65	16 670.92	16 362.74	15 328.11
Other Assets	3 158.17	3 054.46	3 010.64	2 948.39
Total Assets	**72 996.92**	**71 168.11**	**69 316.58**	**64 628.72**
Liabilities to Non-financial Institutions and Households	53 374.67	51 972.48	50 182.54	46 535.39
Deposits Included in Broad Money	53 295.64	51 902.61	50 113.53	46 408.10
Corporate Demand Deposits	9 019.86	9 162.03	8 947.85	7 839.10
Corporate Time Deposits	1 867.24	1 819.56	1 788.69	1 497.42
Personal Deposits	42 408.54	40 921.01	39 376.99	37 071.58
Deposits Excluded from Broad Money	1.41	0.59	0.47	0.48
Transferable Deposits	1.31	0.55	0.45	0.46
Other Deposits	0.10	0.03	0.02	0.02
Other Liabilities	77.62	69.28	68.53	126.82
Liabilities to Central Bank	778.33	770.38	743.25	770.77
Liabilities to Other Depository Corporations	8 393.69	7 927.62	7 778.30	7 165.43
Liabilities to Other Financial Corporations	339.36	144.48	164.35	170.04
Of Which: Deposits Included in Broad Money	117.75	123.67	102.34	87.63
Foreign Liabilities	0.01	0.00	0.00	0.03
Bond Issue	33.99	22.86	57.56	9.56
Paid-in Capital	1 780.88	1 761.62	1 692.48	1 585.07
Other Liabilities	8 295.99	8 568.68	8 698.09	8 392.42
Total Liabilities	**72 996.92**	**71 168.11**	**69 316.58**	**64 628.72**

Source:The PBC.

Table 15 Statistics of Securities Market

Year	2013	2014	2015	2016	2017	2018
Number of Domestic Listed Companies (A shares, B shares)	2 489	2 613	2 827	3 052	3 485	3 584
Number of Domestic Listed Foreign Investment Shares (B shares)	106	104	101	100	100	99
Number of Overseas Listed Companies (H shares)	182	202	229	241	252	267
Total Issued Shares (100 million shares)	33 822.04	36 795.10	43 024.14	48 750.29	53 746.67	57 581.03
of Which: Negotiable Shares (100 million shares)	29 997.12	32 289.25	37 043.37	41 136.05	45 044.87	49 047.57
Total Market Value of Shares (RMB 100 million)	239 077.19	372 546.96	531 462.70	507 685.88	567 086.08	434 924.03
of Which: Negotiable Shares (RMB 100 million)	199 579.54	315 624.31	417 880.76	393 401.67	449 298.14	353 794.20
Trading Volume of Shares (100 million shares)	48 372.67	73 383.09	171 039.47	95 525.43	87 780.84	82 037.25
Turnover of Shares (RMB 100 million)	468 728.61	742 385.26	2 550 541.31	1 277 680.32	1 124 625.11	901 739.40
Shanghai Composite Index (close)	2 115.98	3 234.68	3 539.18	3 103.64	3 307.17	2 493.90
Shenzhen Composite Index (close)	1 057.67	1 415.19	2 308.91	1 969.11	1 899.34	1 267.87
Number of Investor Accounts (10 thousand)	—	7 294.36	9 910.54	11 811.04	13 398.29	14 650.44
Average P/E Ratio						
Shanghai	10.99	15.99	17.63	15.94	16.30	12.49
Shenzhen	34.05	41.91	52.75	41.21	36.21	20.00
Average Turnover Rate (%)						
Shanghai	169.22	242.01	489.63	158.43	180.47	150.91
Shenzhen	423.79	471.99	825.65	541.76	412.88	356.92
Government Bond Issuance (RMB 100 million)	20 230	21 747	59 408	91 086	83 513	78 278
Corporate Credit Bond Issuance (RMB 100 million)	36 784	51 516	67 205	82 242	56 352	77 905
Turnover of Outright Government Bond Purchase in the Interbank Market (RMB 100 million)	58 152	58 797	99 296	126 130	131 269	190 695
Turnover of Government Bond Repo in the Interbank Market (RMB 100 million)	591 766	839 347	1 589 806	1 757 356	1 913 543	2 144 206
Number of Securities Investment Funds	1 551	1 899	2 723	3 873	4 848	5 580
Total Net Asset Value of Securities Investment Funds (RMB 100 million)	30 011.54	45 374.30	83 971.83	91 595.16	115 989.13	130 339.08
Turnover of Securities Investment Funds Listed on Exchanges (RMB 100 million)	14 785.47	47 230.89	152 684.59	111 444.32	98 051.89	102 704.59
Trading Volume of Futures (10 thousand lots)	206 177.33	250 585.57	357 791.06	413 776.83	307 102.17	301 055.65
Turnover of Futures (RMB 100 million)	2 674 739.52	2 919 882.26	5 542 311.75	1 956 316.08	1 878 925.88	2 107 973.78

Source: The PBC, the CSRC, Asset Management Association of China, China Central Depository &.Clearing Co., Ltd.

Table 16　Ratio of Stock Market Capitalization to GDP

(RMB 100 million, %)

Year	GDP	Market Capitalization	Ratio of market captialization to GDP (percent)	GDP	Negotiable Market Capitalization	Ratio of Negotiable Market Captialization to GDP (percent)
2001	109 655	43 583	39.69	109 655	14 489	13.19
2002	120 333	38 339	31.85	120 333	12 487	10.38
2003	135 823	42 478	31.26	135 823	13 185	9.70
2004	159 878	37 081	23.18	159 878	11 701	7.31
2005	183 868	32 446	17.64	183 868	10 638	5.78
2006	211 923	89 441	42.19	211 923	25 021	11.80
2007	249 530	327 291	131.10	249 530	93 141	37.30
2008	300 670	121 541	40.36	300 670	45 303	15.04
2009	335 353	244 104	72.74	335 353	151 342	45.10
2010	397 983	265 423	66.69	397 983	193 110	48.52
2011	471 564	214 758	45.54	471 564	164 921	34.97
2012	519 322	230 358	44.36	519 322	181 658	34.98
2013	568 845	239 077	42.03	568 845	199 580	35.09
2014	636 463	372 547	58.53	636 463	315 624	49.59
2015	676 708	531 463	78.51	676 708	417 881	61.76
2016	744 127	507 686	68.30	744 127	393 402	52.85
2017	827 122	567 086	68.56	827 122	449 298	54.32
2018	900 309	434 924	48.31	900 309	353 794	39.30

Source: The NBS, the CSRC.

Table 17　Ratio of Domestic Stock Financing to Bank Loan Increment

(RMB 100 million, %)

Year	Domestic Stock Financing	Bank Loan Increment	Ratio (percent)
2001	1 238.14	12 439.41	9.50
2002	720.05	18 979.20	4.11
2003	665.51	27 702.30	2.97
2004	650.53	19 201.60	4.49
2005	339.03	16 492.60	2.05
2006	2 374.50	30 594.89	8.05
2007	7 814.74	36 405.60	21.21
2008	3 312.39	41 703.76	6.28
2009	4 834.34	96 290.18	4.04
2010	9 799.80	79 510.73	11.26
2011	7 154.43	68 751.14	7.38
2012	4 542.40	81 962.95	3.82
2013	4 131.46	93 326.01	3.70
2014	8 498.26	101 548.47	4.76
2015	16 361.62	117 007.11	14.06
2016	20 297.39	123 592.46	16.53
2017	15 534.98	133 725.15	12.42
2018	11 377.88	163 217.27	6.97

Source: Calculated on the basis of data from the CSRC and the PBC.

Table 18 Statistics of Stock Market

Year		2012	2013	2014	2015	2016	2017	2018
Number of Domestic Listed Companies (A shares, B shares)		2 494	2 489	2 613	2 827	3 052	3 485	3 584
Of Which: ST Companies		99	53	44	51	62	64	57
Small- and Medium-sized Enterprise (SME) Board		701	701	732	776	822	903	922
ChiNext		355	355	406	492	570	710	739
Number of Domestic Listed Foreign Investment Shares (B shares)		108	106	104	101	100	100	99
Of Which: ST Companies		10	7	3	0	4	4	1
Total Issued Shares (100 million shares)		31 833.62	33 822.04	36 795.10	43 024.14	48 750.29	53 746.67	57 581.03
Of Which: SME Board		2 410.25	2 818.48	3 470.59	4 853.94	6 423.69	7 612.24	8 360.10
ChiNext		600.89	761.56	1 077.26	1 840.45	2 630.61	3 258.49	3 728.17
Total Market Capitalization of Shares (RMB 100 million)		230 357.62	239 077.19	372 546.96	531 462.70	507 685.88	567 086.08	434 924.03
Of Which: SME Board		28 804.03	37 163.74	51 058.20	103 950.47	98 113.98	103 992.02	70 122.00
ChiNext		8 731.21	15 091.98	21 850.95	55 916.25	52 254.50	51 288.81	40 459.59
Market Capitalization of Negotiable Shares (RMB 100 million)		181 658.26	199 579.54	315 624.31	417 880.76	393 401.67	449 298.14	353 794.20
Of Which: SME Board		16 244.15	25 543.70	36 017.99	69 737.04	64 088.77	71 155.07	50 478.88
ChiNext		3 335.29	8 218.83	13 072.90	32 078.68	30 536.90	30 494.77	24 542.95
Volume (100 million shares)	Total	32 860.54	48 372.68	73 383.09	171 039.47	95 525.43	87 780.84	82 037.25
	Daily Average	135.23	203.25	301.04	700.98	388.08	359.76	337.60
	SME Board	5 075.85	8 245.92	11 313.55	25 409.95	20 578.13	17 409.44	18 286.37
	ChiNext	1 478.14	3 035.84	4 035.30	9 938.88	9 509.90	8 829.88	11 642.30

(concluded)

Year		2012	2013	2014	2015	2016	2017	2018
Turnover (RMB 100 million)	Total	314 583.27	468 728.61	743 912.98	2 550 541.31	1 273 844.74	1 124 625.11	901 739.40
	Daily Average	1 294.58	1 969.45	3 036.38	10 453.04	5 220.68	4 609.12	3 710.86
	SME Board	61 891.45	100 224.40	152 166.57	497 556.18	344 164.94	259 879.80	203 625.83
	ChiNext	23 304.63	51 181.94	78 041.34	285 352.81	216 831.62	165 521.59	158 862.19
Average Turnover Rate (%)	Shanghai	128.19	169.22	242.01	489.63	158.43	180.47	150.91
	Shenzhen	325.84	423.79	471.99	825.65	541.76	412.88	356.92
Average P/E Ratio	Shanghai	12.59	10.99	15.99	17.63	15.94	16.30	12.49
	Shenzhen	22.02	34.05	41.91	52.75	41.21	36.21	20
	SME Board	25.42	34.07	41.06	68.06	50.35	45.56	21.04
	ChiNext	32.01	55.21	64.51	109.01	73.21	51.39	32.78
Shanghai Composite Index	Open	2 212.00	2 289.51	2 112.13	3 258.63	3 536.59	3 105.31	3 314.03
	Highest	2 478.38	2 444.80	3 239.36	5 178.19	3 538.69	3 450.50	3 587.03
	Date	2012/02/27	2013/02/18	2014/12/31	2015/06/12	2016/01/04	2017/11/14	2018/01/29
	Lowest	1 949.46	1 849.65	1 974.38	2 850.71	2 638.30	3 016.53	2 449.20
	Date	2012/12/4	2013/06/25	2014/03/12	2015/08/26	2016/01/27	2017/05/11	2018/10/19
	Close	2 269.13	2 115.98	3 234.68	3 539.18	3 103.64	3 307.17	2 493.90
Shenzhen Composite Index	Open	871.93	887.36	1 055.88	1 419.44	2304.48	1 972.55	1903.49
	Highest	1 020.29	1 106.27	1 504.48	3 156.96	2 304.49	2 054.02	1 966.15
	Date	2012/03/14	2013/10/22	2014/12/16	2015/06/12	2016/01/04	2017/03/17	2018/01/25
	Lowest	724.97	815.89	1 004.93	1 408.99	1 618.12	1 753.53	1212.23
	Date	2012/12/04	2013/06/25	2014/04/29	2015/01/05	2016/01/27	2017/06/02	2018/10/19
	Close	881.17	1 057.67	1 415.19	2 308.91	1 969.11	1 899.34	1 267.87

Source: The CSRC,Shanghai Stock Exchange and Shenzhen Stock Exchange.

Table 19 Summary of China's Bond Issuance

(RMB 100 million)

Year	Government Bonds			Financial Bonds			Corporate Credit Bonds		
	Issue	Redemption	Outstanding	Issue	Redemption	Outstanding	Issue	Redemption	Outstanding
1999	4 015	1 239	10 542				158	57	779
2000	4 657	2 179	13 020				83		862
2001	4 884	2 286	15 618				147		
2002	5 934	2 216	19 336				325		
2003	6 280	2 756	22 604				358		
2004	6 924	3 750	25 778				327		
2005	7 042	4 046	28 774				2 047	37	
2006	8 883	6 209	31 449				3 938	1 672	
2007	23 139	5 847	48 741				5 181	2 881	7 683
2008	8 558	7 531	49 768				8 723	3 278	13 251
2009	17 927	9 745	57 950				16 599	4 309	25 541
2010	19 778	10 043	67 685				16 094	5 099	36 318
2011	17 100	10 959	75 832	23 491	7 683	75 748	23 548	10 326	49 095
2012	16 154	9 464	82 522	26 202	8 588	93 362	37 365	8 750	77 710
2013	20 230	8 996	95 471	26 310	13 306	105 772	36 784	18 673	93 242
2014	21 747	10 365	107 275	36 552	19 345	125 489	51 516	27 388	116 214
2015	59 408	12 803	154 524	102 095	53 852	184 596	67 205	39 757	144 329
2016	91 086	19 709	225 734	182 152	125 677	236 499	82 242	61 139	175 180
2017	83 513	27 567	281 538	258 056	216 410	278 301	56 352	52 378	183 252
2018	78 278	29 875	330 069	274 056	229 047	322 585	77 905	51 561	205 603

Notes: ① "Financial Bonds" are bonds issued by financial insitutions, including financial bonds issued by CDB; policy financial bonds; common bonds, subordinated bonds and hybrid bonds issued by commercial banks; asset-backed securities; bonds and short-term financing bills issued by securities companies; financial bonds issued by asset management companies; and interbank negotiable certificates of deposit.

② Due to statistical method adjustment, since 2012, the item "Enterprise bonds" is replaced by "Corporate credit bonds", including debt financing instruments of non-financial enterprises, enterprise bonds, corporate bonds, convertible bonds, bonds with detachable warrants, and SME private-funded bonds.

Source:The PBC.

Table 20 Statistics of China's Insurance Sector

(RMB 100 million, %)

Items	2012	Growth (y-o-y) (percent)	2013	Growth (y-o-y) (percent)	2014	Growth (y-o-y) (percent)	2015	Growth (y-o-y) (percent)	2016	Growth (y-o-y) (percent)	2017	Growth (y-o-y) (percent)	2018	Growth (y-o-y) (percent)
Premium Income	15 487.93	8.01	17 222.24	11.20	20 234.81	17.49	24 282.52	20.00	30 959.10	27.50	36 581.01	18.16	38 016.62	3.92
1.Property Insurance	5 330.93	15.44	6 212.26	16.53	7 203.38	15.95	7 994.97	10.99	8 724.50	9.12	9 834.66	12.72	10 770.08	9.51
2.Personal Accident Insurance	386.18	15.58	461.34	19.46	542.57	17.61	635.56	17.14	749.89	17.99	901.32	20.19	1 075.55	19.33
3.Health Insurance	862.76	24.73	1 123.50	30.22	1 587.18	41.27	2 410.47	51.87	4 042.50	67.71	4 389.46	8.58	5 448.13	24.12
4.Life Insurance	8 908.06	2.44	9 425.14	5.80	10 901.69	15.67	13 241.52	21.46	17 442.22	31.72	21 455.57	23.01	20 722.86	–3.41
Claims and Payments	4 716.32	20.03	6 212.90	31.73	7 216.21	16.15	8 674.14	20.20	10 512.89	21.20	11 180.79	6.35	12 297.87	9.99
1.Property Insurance	2 816.33	28.78	3 439.14	22.11	3 788.21	10.15	4 194.17	10.72	4 726.18	12.68	5 087.45	7.64	5 897.32	15.92
2.Personal Accident Insurance	96.80	18.28	109.51	13.12	128.42	17.27	151.84	18.24	183.01	20.53	223.69	22.23	267.70	19.68
3.Health Insurance	298.17	–17.10	411.13	37.88	571.16	38.92	762.97	33.58	1 000.75	31.17	1 294.77	29.38	1 744.34	34.72
4.Life Insurance	1 505.01	15.69	2 253.13	49.71	2 728.43	21.09	3 565.17	30.67	4 602.95	29.11	4 574.89	–0.61	4 388.52	–4.07
Operating Expenses	2 171.46	15.36	2 459.59	13.27	2 795.79	13.67	3 336.72	19.35	3 895.52	16.75	4 288.06	10.08	4 717.73	10.02
Bank Deposits	23 446.00	32.19	22 640.98	–3.43	25 233.44	11.45	24 349.67	–3.50	24 844.21	2.03	19 274.07	–22.42	24 363.50	26.41
Investment	45 096.58	19.50	54 232.43	20.26	66 997.41	23.54	87 445.81	30.52	109 066.46	24.72	129 932.14	19.13	139 724.88	7.54
Of Which: Government Bonds	4 795.02	1.11	4 776.73	–0.38	5 009.88	4.88	5 831.12	16.39	7 796.24	33.70	10 167.99	30.42	14 027.62	37.96
Securities Investment Funds	3 625.58	24.34	3 575.52	–1.38	4 714.28	31.85	8 856.50	87.87	8 554.46	–3.41	7 524.77	–12.04	8 650.55	14.96
Total Assets	73 545.73	22.29	82 886.95	12.70	101 591.47	22.57	123 597.76	21.66	151 169.16	22.31	167 489.37	10.80	183 308.92	9.45

Notes: ① Data of premium income, claims and payments and operating expenses are data for the year.

② Data of bank deposits, investment and total assets are data of the year-end balance.

Source: Calculated based on data from the former CIRC.

Table 21 The Structure of Non-life Insurance Premium Income

(RMB 100 million, %)

Insurance Lines	2014	Proportion (percent)	2015	Proportion (percent)	2016	Proportion (percent)	2017	Proportion (percent)	2018	Proportion (percent)
Automobile Insurance	5 515.93	73.11	6 198.96	73.59	6 834.55	73.76	7 521.07	71.35	7 834.02	66.64
Enterprise Property Insurance	387.35	5.13	386.16	4.58	381.54	4.12	392.10	3.72	423.11	3.60
Cargo Transportation Insurance	95.44	1.27	88.16	1.05	85.46	0.92	100.19	0.95	121.11	1.03
Accident Insurance	171.93	2.28	199.95	2.37	247.69	2.67	312.66	2.97	416.60	3.54
Liability Insurance	253.30	3.36	301.85	3.58	362.35	3.91	451.27	4.28	590.79	5.03
Others	1 120.45	14.85	1 248.18	14.82	1 354.60	14.62	1 764.09	16.73	2 370.06	20.16
Total	7 544.40	100.00	8 423.26	100.00	9 266.17	100.00	10 541.38	100.00	11 755.69	100.00

Source: The former CIRC.

Table 22 The Structure of Life Insurance Premium Income

(RMB 100 million, %)

Insurance Lines	2014	Proportion (percent)	2015	Proportion (percent)	2016	Proportion (percent)	2017	Proportion (percent)	2018	Proportion (percent)
Life Insurance	10 901.57	85.90	13 241.40	83.49	17 442.09	80.40	21 455.49	82.40	20 722.80	78.91
Of Which: Common Life Insurance	4 296.49	33.86	6 728.14	42.42	10 451.65	48.18	12 936.48	49.68	9 120.97	34.73
Participating Insurance	6 508.75	51.29	6 413.19	40.44	6 879.77	31.71	8 403.20	32.27	11 489.15	43.75
Unit-linked Insurance	4.42	0.03	4.18	0.03	3.85	0.02	3.91	0.02	4.12	0.02
Accident Insurance	370.63	2.92	435.61	2.75	502.20	2.32	588.66	2.26	658.95	2.51
Health Insurance	1 418.09	11.17	2 182.13	13.76	3 748.51	17.28	3 995.40	15.34	4 879.12	18.58
Total	12 690.28	100.00	15 859.13	100.00	21 692.81	100.00	26 039.55	100.00	26 260.87	100.00

Source: The former CIRC.

Table 23 Insurance Premium Income of China's Different Regions in 2018

(RMB 100 million)

Regions	Insurance Premium Income	Property Insurance	Life Insurance	Accident Insurance	Health Insurance
Total	38 016.62	10 770.08	20 722.86	1 075.55	5 448.13
Guangdong	3 472.37	926.97	1 946.71	119.13	479.57
Jiangsu	3 317.28	858.81	1 985.32	78.11	395.04
Shandong	2 519.45	619.65	1 442.97	55.22	401.61
Henan	2 262.85	497.30	1 348.87	47.52	369.17
Sichuan	1 958.08	492.08	1 154.92	51.19	259.89
Zhejiang	1 953.21	673.98	981.91	60.40	236.92
Beijing	1 793.34	422.67	990.27	64.50	315.90
Hebei	1 790.63	529.78	979.68	35.32	245.85
Hubei	1 470.92	351.97	840.76	39.90	238.28
Shanghai	1 405.79	485.09	620.01	85.07	215.61
Hunan	1 255.07	357.30	676.80	31.72	189.24
Anhui	1 209.73	408.80	612.05	26.05	162.83
Shenzhen	1 191.51	344.20	625.03	53.72	168.57
Shaanxi	969.39	229.68	603.93	21.11	114.67
Heilongjiang	899.11	187.78	545.56	17.03	148.74
Fujian	870.92	234.96	467.14	27.45	141.37
Liaoning	852.89	257.67	468.07	17.60	109.56
Shanxi	824.88	212.94	487.19	16.50	108.25
Chongqing	806.24	202.48	449.99	23.23	130.54
Jiangxi	753.59	240.37	381.23	18.28	113.71
Yunnan	667.99	275.81	278.11	22.73	91.33
Inner Mongolia	659.50	194.40	351.88	13.76	99.47
Jilin	629.90	173.41	348.33	11.60	96.55
Guangxi	629.03	219.11	292.62	23.28	94.02
Xinjiang	577.26	191.11	271.25	18.65	96.26
Tianjin	559.98	144.44	329.16	14.31	72.08
Guizhou	445.88	208.03	161.90	18.37	57.58
Qingdao	439.40	128.75	228.61	9.07	72.96
Gansu	398.98	125.79	204.07	12.14	56.98
Dalian	335.31	81.40	208.99	6.40	38.52
Ningbo	320.59	152.84	132.18	7.89	27.68
Xiamen	210.51	80.32	95.19	6.77	28.23
Hainan	183.10	64.23	89.94	5.93	22.99
Ningxia	182.83	63.90	83.10	5.23	30.61
Qinghai	87.66	37.03	34.67	2.61	13.35
Tibet	33.45	22.16	4.38	3.47	3.44
Group and Head Office Level	78.02	72.87	0.07	4.32	0.75

Note: Data of “Group and Head Office Level” refer to the premium income earned by the group and head office, which are not reflected in any region's data.

Source: The former CIRC.

Table 24 Transactions of Payment Systems

(10 thousand transactions, RMB 100 million)

Items/Year	2014		2015		2016		2017		2018	
	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
HVPS	71 256.49	23 468 933.87	78 883.86	29 520 565.22	82 566.97	36 162 984.12	93 208.70	37 318 633.92	107 310.73	43 534 782.76
BEPS	143 580.15	220 751.23	183 526.95	249 402.68	234 830.13	309 131.24	252 753.84	331 445.29	218 279.40	355 326.99
IBPS	163 914.52	177 893.21	296 555.07	277 563.81	445 314.80	374 610.10	846 427.92	617 200.49	1 209 784.49	890 544.71
ACH	38 381.54	632 193.30	39 515.72	1 243 363.80	37 246.57	1 308 049.55	35 902.76	1 308 500.57	35 488.89	1 120 284.71
CFXPS	191.13	52 809.80	207.88	57 002.02	198.58	54 732.23	201.66	67 456.07	213.52	83 267.58
CIPS	—	—	8.67	4 808.98	63.61	43 617.74	125.90	145 539.58	144.24	264 463.17
Intra-bank Payment Systems of Banking Financial Institutions	1 431 813.80	8 962 797.55	1 970 775.51	11 940 122.11	2 583 027.85	12 154 693.66	3 231 336.24	13 336 885.70	3 669 527.73	13 320 871.21
Interbank Bankcard Payment System	1 867 366.07	411 097.10	2 066 757.44	492 752.74	2 376 180.09	670 694.00	2 934 772.13	938 491.66	2 632 478.30	1 190 709.89

Notes: Since 2018, the statistical standard of item “UnionPay Bankcard Interbank Clearing System” is adjusted, only including capital clearing transactions, excluding non-capital clearing transactions such as account checking, account verifying, etc.

Source: The PBC.

责任编辑：李　融　李林子
责任校对：
责任印制：

图书在版编目（CIP）数据

中国金融稳定报告. 2019：英文版/中国人民银行金融稳定分析小组编. —北京：中国金融出版社，2019.

ISBN 978–7–5220–　　　–

Ⅰ.①中…　Ⅱ.①中…　Ⅲ.①　Ⅳ.①

中国版本图书馆CIP数据核字（2019）第　　　　号

出版
发行　中国金融出版社
社址　北京市丰台区益泽路2号
市场开发部　（010）63266347, 63805472, 63439533（传真）
网 上 书 店　http://www.chinafph.com
（010）63286832, 63365686（传真）
读者服务部　（010）66070833, 62568380
邮编　100071
经销　新华书店
印刷
尺寸　210毫米×285毫米
印张
字数　　千
版次　2019年　月第1版
印次　2019年　月第1次印刷
定价　　.00元
ISBN 978–7–5220–　　　–
如出现印装错误本社负责调换　联系电话（010）63263947