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CHINA FINANCIAL MARKET DEVELOPMENT REPORT

PBC Shanghai Head Office
China Financial Market Development Report Committee

中国金融出版社

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Part I Overview

In 2017, world economic growth accelerated, international financial markets were generally stable, and the major economies began to adjust their monetary policies. Notwithstanding complicated economic and financial environment at home and abroad, the Communist Party of China successfully held 19th National Congress; China hosted the Belt and Road Forum for International Cooperation and the BRICS Summit and achieved a lot in economic development, reform and opening-up. Still resilient and stable,the economy was in the transition from high-speed development to high-quality development and performance improved. The financial market performance was generally stable, while financial sector reform deepened and improvements in institutional arrangements and infrastructure continued. Structure of the financial market and product system was optimized and the two-way opening. Higher priority was given to strengthening regulation, preventing and defusing systemic financial risks to guide the financial market back to the fundamental function of serving the real economy, supporting supply-side structural reform, and the efficiency and quality of financial services continued to rise.

I. The macro environment for financial market development in 2017

1.1 International economic and financial conditions

According to the *World Economic Situation and Prospects* 2018 released by the United Nations, vulnerability factors related to financial crises and other negative shocks has receded, and global economic growth reached 3% in 2017, the highest since 2011, and a significant acceleration compared to that of 2.4% in 2016. Against this backdrop, roughly two-thirds of countries experienced stronger growth of 2017 than in the previous year, and developing countries were still the main drivers of global growth. In 2017, East and South Asia continued to be the most dynamic regions, realizing gross domestic product (GDP) growth of of 6%, higher than other regions in the world and accounting for nearly half of global growth. In particular, the Chinese economy alone contributed one-third to global growth. Despite of stronger growth, stronger economic activity was not shared evenly across countries and regions, with many parts of the world yet to regain a healthy rate of growth.

Though the rebound in world trade and improvement of investment environment had supported the recovery of economy, many developing economies and economies in transition remained vulnerable to shocks such as spikes in risk aversion, emergency capital withdrawal and a disorderly tightening of global liquidity conditions. At the same time, rising levels of debt also brought challenges to global financial conditions.

1.1.1 Global economic growth strengthened in 2017

1.1.1.1 Some advanced economies recorded strong growth, while East Asia and South Asia remained the world's most dynamic regions

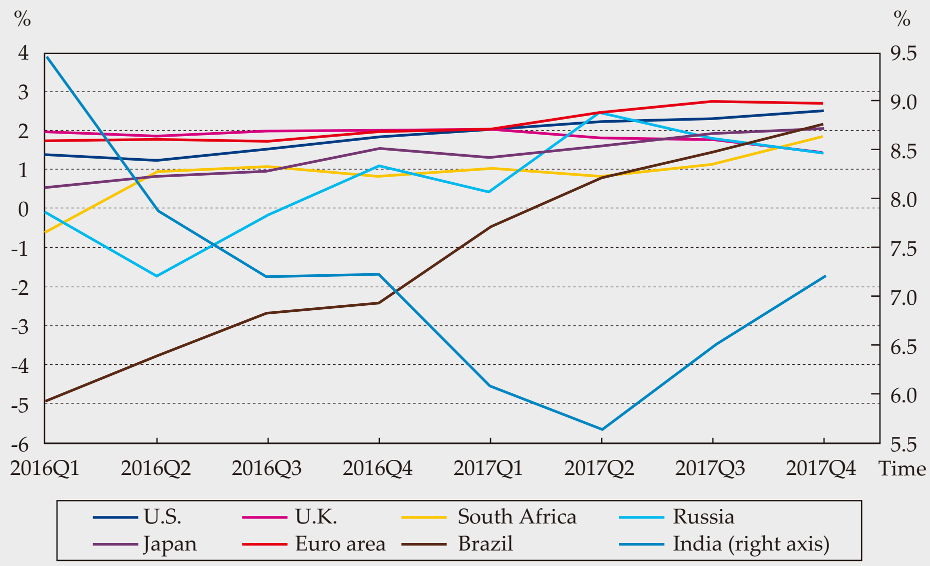
The acceleration of global economic development in 2017 stemmed mainly from stronger growth in some advanced economies. In the United States (U.S.), the acceleration of economic growth was supported by the improvement in business investment environment. In 2017, the US real GDP grew at a seasonally adjusted annual pace was 2.25%, a significant improvement compared to that of 1.5 % in 2016. Economic growth in the Eurozone was solid, of which private consumption remained the major driver. In 2017, seasonally adjusted real GDP growth was 2.5% in the Eurozone, significantly higher than 1.8% in 2016. Supported by the consistent domestic macroeconomic policy and rapid expansion of domestic demand, Japanese economy maintained the growth momentum since the fourth quarter of 2016. In 2017, seasonally adjusted real GDP growth in Japan was 1.7%, much higher than that of 0.9% in 2016. In the United Kingdom (U.K.), economic growth slowed down slightly due to the uncertainties arising from Brexit negotiations and its subsequent impacts. The seasonally adjusted real GDP growth in U.K. was 1.7% in 2017, lower than that of 1.9% in 2016. Due to rebound of prices of oil and other commodity, Brazil and Russia emerged from recession. In 2017, the seasonally adjusted real GDP growth was 1.0% in Brazil, and in Russia, the seasonally adjusted real GDP growth were 0.4%, 2.5% and 1.8% respectively in the first three quarters, with an estimated annual rate of 1.5%. The real sector in South Africa stepped out of technical recession, and net exports rebounded. In 2017, the seasonally adjusted real GDP growth was 1.2% in South Africa, much higher than that of 0.6% in 2016. Despite of the signs of slowdown in economic growth, the seasonally adjusted real GDP growth reached 6.4% in 2017, underpinned by strong private consumption and public investment, as well as the ongoing structural reform.

1.1.1.2 Global trade rebounded and investment conditions improved

Global trade rebounded in 2017. January through August, trade in goods recorded the highest growth in the post-crisis period, thanks to stronger import demand and domestic demand expansion supported by the *accommodative policy* measures in East Asia. After the weakest growth in post-crisis period in 2016, global trade rebounded in 2017, buoyed by the upturn in global growth. In 2017, global trade volume was estimated to expand 3.7%, higher than the 2.2% in 2016.

With the acceleration of global economic

Figure 1.1 Economic growth rates of major economies, 2016—2017



Note: The real GDP growth rates are seasonally adjusted.
Sources: Reuters DATASTREAM.

growth, recovery of international trade, and the expectation for a steady transition of the monetary policy in the U.S., global financing conditions improved and investment showed signs of recovery. In particular, driven by stronger portfolio and bank financing, private non-resident capital inflows to developing and emerging economies reached a historic high. Non-resident capital inflows to emerging economies exceeded US$1.1 trillion in 2017, while resident capital outflows fell from more than US$1.0 trillion in 2016 to US$770 billion in 2017. Foreign direct investment (FDI) was the most stable form of global capital flows. According to the *World Investment Report* 2017 released by the United Nations Conference on Trade and Development, global FDI fell to US$1.75 trillion in 2016, down 2% from the previous year. In 2017, global FDI was projected to increase to nearly US$1.8 trillion, with the FDI inflows to developing economies rising by 10%, while the FDI inflows to developed economies remained stable.

1.1.1.3 International oil price surged, and the seaborne trade was brisk

In the first half of 2017, despite the OPEC production cuts, the global inventory of crude oil remained high. International oil price measured by the WTI declined from US$53.75 per barrel at the beginning of the year to US$42.48 per barrel in June. However, with the drop of U.S. inventory and the agreement by OPEC and non-OPEC producers to limit daily supply to 1.8 million barrels from January 2017 until March 2018, the international oil price rose sharply to US$60.46 per barrel at the end of 2017, up 12.5% from the end of 2016.

The Baltic Dry Index (BDI), a leading indicator of global trade activities, stood at 953 at the beginning of the year, before rising to 1,730 in the middle of December and dropping to 1,366 at year-end, up by 42% compared to that of 2016.

1.1.1.4 Global commodity prices continued moderate growth

In 2017, commodity prices declined at first and then rose. The Bloomberg Commodity Index declined from US$87.5 at the beginning of 2017 to US$79.4 in June, and then rebounded to US$88.2 at the end of the year, basically the same as US$87.5 at the end of 2016, and lower than its peak level of US$88.2 recorded in 2016. As for food prices, according to the data recently released by the Food and Agriculture Organization of the United Nations, the FAO Food Price Index averaged 174.6 points in 2017, up 8.2% from that of 2016. In respect of nonferrous metals, at the end of 2017, London Metal Exchange (LME) grade-A copper price closed at US$7,207 per ton, a YOY growth of 30.5%; Aluminum alloy closed at US$1,806 per ton, a YOY growth of 16.8%; zinc, lead and nickel closed US$3,337.5 per ton, US$2,484.75 per ton, and US$12,705.5 per ton respectively, a YOY growth of 30.5%, 24.3% and 27.5%. Gold price increased from US$1,193 per ounce at the beginning of 2017 to US$1,282 per ounce in August, a hike of 7.5%, but still recording a YOY decrease of 4.4%.

1.1.2 International financial markets were generally stable in 2017

1.1.2.1 Major developed countries moderately tightened monetary policy

The U.S. economy continued to recover steadily in 2017 and the labor market was close to full employment. In October, the FOMC started to unwind the balance sheet. In December, the Committee raised the federal funds rate to a target range of 1.25% to 1.50%, after two hikes of the rate in this year, which reflected further tightening of its monetary policy. In the *euro area*, the Governing Council of the European Central Bank (ECB) maintained the interest rate of deposit facility at -0.4%, and reduced the size of asset purchase to €60 billion since April. In the United Kingdom, because the inflation rate continued to stay above the target of the central bank, the Monetary Policy Committee (MPC) of the Bank of England (BOE) increased *Bank Rate* from 0.25% to 0.5% in November, which was the first increase in nearly 10 years. The Committee maintained the stock of U.K. government bond purchases at £435 billion and the stock of corporate bond purchases at £10 billion. The Bank of Japan (BOJ) maintained the accommodative monetary policy, and still applied a negative interest rate of -0.1%.

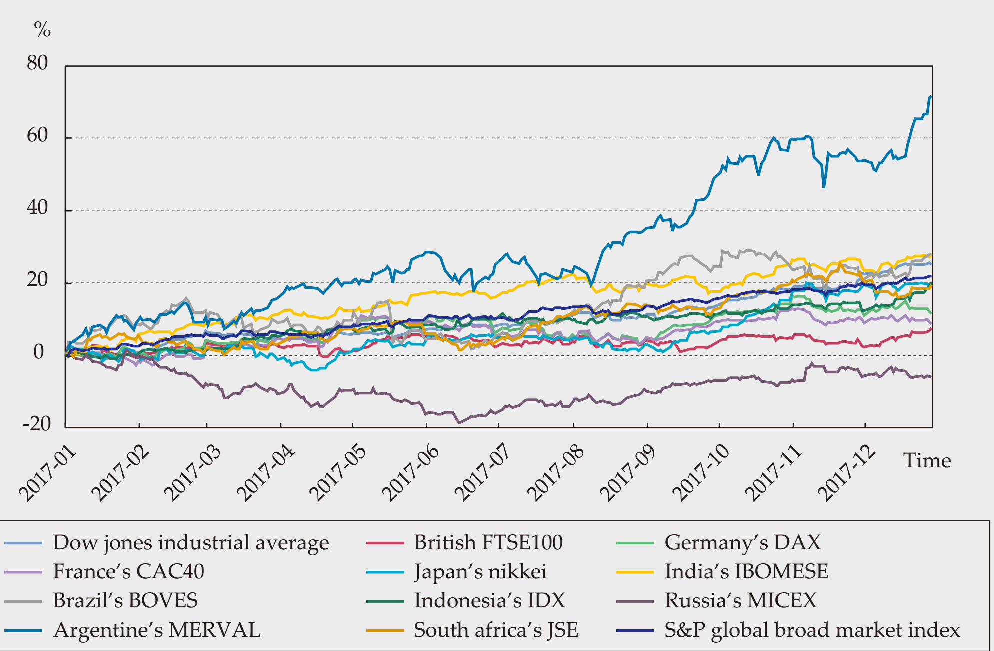
1.1.2.2 Global stock markets rallied

Against the background of strong economic growth and corporate financial performance, global stock markets rallied in 2017. The S&P Global Broad Market Index, which included the majority of stocks in 48 developed and emerging markets economies, gained 21.7%. The stock markets in Argentina, Brazil, India and the U.S. rose by more than 25% to 71.8%, 28.2%, 28.1% and 25.1% respectively. European stock markets also had relatively strong performance. In the U.K., France and Germany, major stock indices rose by 7.6%, 8.8% and 11.4% respectively. In Russia, stock market declined and then rallied. The MICEX index fell 18.6% till June before rebounding,but the index declined 5.5% from the beginning to the end of the year. In addition, the stock markets in Japan, South Africa and Indonesia rose by 19.1%, 19.7% and 20.0% respectively.

1.1.2.3 The yields on treasury bonds of major countries were stable

In 2017, the yield of US 10-year Treasury yield fell at the beginning of the year, declining to a low of 2 percent, before recovering the loss to reach 2.5% at end 2017. In the U.K., the yield of the 10-year treasury bond recorded a similar trend as that of the U.S., but was lower than that of the U.S. by about 125 bp. With the negative impact of Brexit on the decline, Germany's 10-year treasury bond yield rose to the positive range, and closed at 0.39% at end 2017. The yield on the French 10-year treasury bond began to decline after rising slightly at the beginning of the year, and closed at 0.59% at end of the year. In Japan, after the BOJ proposed to raise the yield on the 10-year treasury bond to zero in September, the rate increased to the positive range and closed at 0.06% at the end of the year, almost the same level as the beginning of the year.

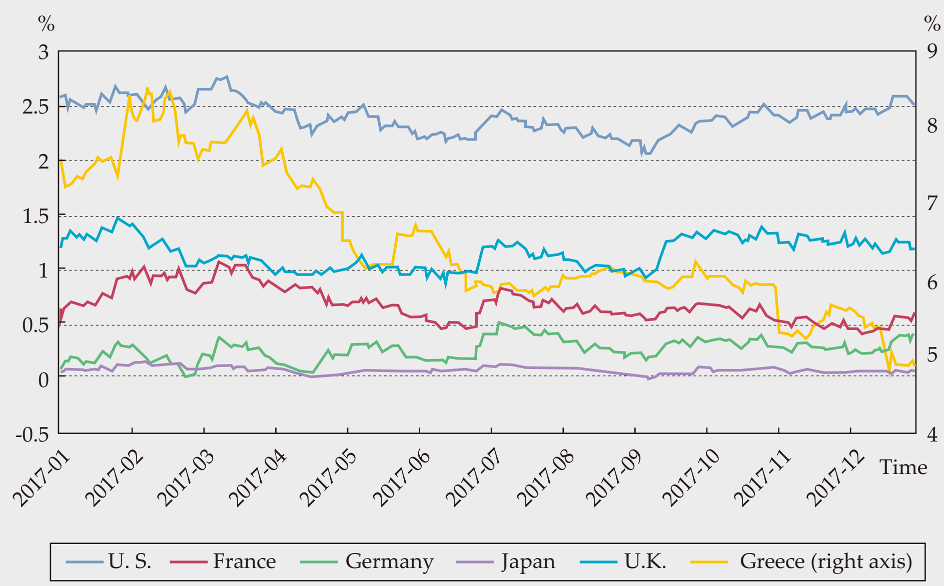
Figure 1.2 Movements of stock indices in major economies in 2017



Note: The beginning of 2017 as the base.

Sources: Reuters DATASTREAM and staff calculation.

Figure 1.3 Movements of 10-year treasury bond yields in major advanced economies in 2017



Sources: Reuters DATASTREAM.

1.1.2.4 The U.S. dollar weakened against other major currencies

The US dollar declined against other major currencies despite the U.S. Federal Reserve's three rate hikes in 2017 and the adoption of tax reforms proposed by the Trump Government. In 2017, other worldwide most-traded currencies generally appreciated against the U.S. dollar. The exchange rate of EUR/USD, GBP/USD and JPY/USD rose by 12.8%, 9.2% and 4.1% respectively in 2017. Other currencies had mixed performances against the USD. The Argentina peso devalued sharply by 16.8%. Turkish lira depreciated by 6.9%. Russian ruble, Indian rupee, Malaysian ringgit and South African rand appreciated by 5.9%, 6.3%, 9.8% and 10% respectively. Brazilian real and Indonesian rupiah basically remained unchanged since the beginning of the year, depreciating less than 0.9%.

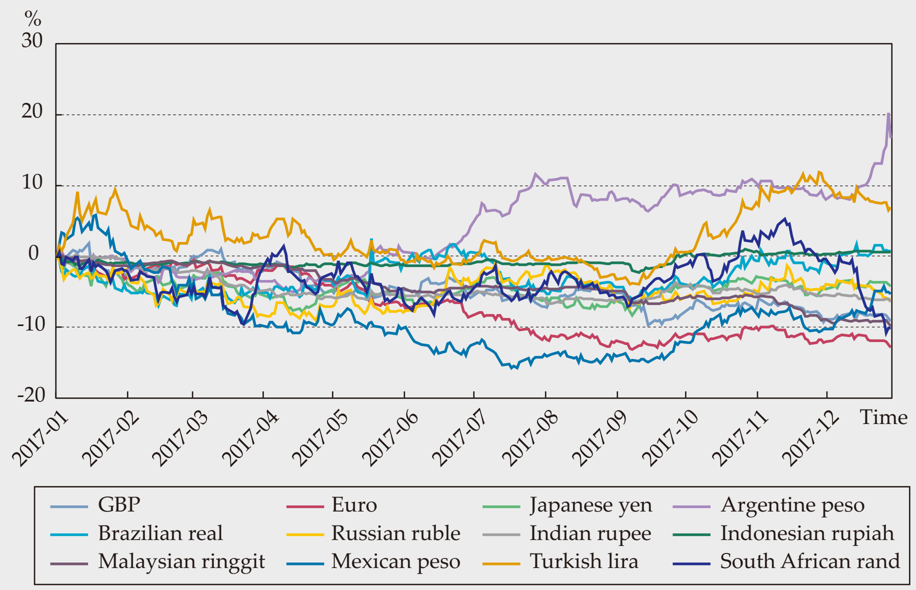
1.2 Domestic economic and financial conditions

1.2.1 The performance of national economy was stable and positive

1.2.1.1 Performance was within an appropriate range and the development was more resilient

In 2017, China continued the supply-side structural reform as the main task, moderately expanded aggregate demand, and deepened reforms and innovation in order to revitalize the real economy. The stable performance of the national economy continued and the economic structure kept optimizing. With new growth drivers gaining momentum, the quality and efficiency of economic growth

Figure 1.4 Movements of major currencies in 2017



Sources: Reuters DATASTREAM and staff calculation.

improved notably, and development was more stable, balanced and sustainable. In 2017, the GDP amounted to RMB 82.7 trillion, a year on year increase of 6.9%, 0.2 percentage points higher than last year. In particular, the GDP grew by 6.9%, 6.9%, 6.8% and 6.8% year on year respectively in the four quarters. The economy had grew at the rate within the range of 6.7%~6.9% for ten consecutive quarters, reflecting the strengthening resilience. The value added of the primary, secondary and tertiary industries increased by 3.9%, 6.1% and 8.0% year on year respectively.

1.2.1.2 Adjustment of demand structure optimized, and import and export value grew rapidly

In 2017, retail sales of consumer goods posted *RMB 36.6 trillion*, up 10.2% year on year. The contribution of final consumption expenditure to the economic growth declined by 7.7% year on year to 58.8%, which is 26.7 percentage points higher than that of gross capital formation, thus was still the main driver for economic growth. During the year, the value of imports and exports totaled *RMB 27.8 trillion*, up 14.2% year on year, reversing the declining trend in the past two years. In particular, exports rose by 10.8% from last year to *RMB 15.3 trillion*, and that of imports by 18.7% from last year to *RMB 12.5 trillion*. The composition of imports and exports of general trade and exports of electromechanical products improved, indicating the imports and exports structure continued to upgrade. During the year, fixed-asset investment (excluding that by rural households) stood at 63.2 trillion yuan, a year on year gain of 7.2%, deceleration of 0.9 percentage points from 2016, and presenting a declining trend of growth rate month on month. In particular, investment in the manufacturing industry increased by 4.8% year on year, and investment in the real estate industry increased by 7.0% year on year, while investment in infrastructure (excluding electricity, heat, gas, and water production and supply industries) rose by 19.0% year on year.

1.2.1.3 Consumer price increased moderately, and household income grew faster

In 2017, the CPI was up 1.6% year on year, a deceleration of 0.4 percentage points from the growth in 2016. Among it, the medical and health care prices rose 6.0%, and the residential price rose 2.6%, while the price of food, liquor and cigarette declined 0.4%. Affected by the decline of food price, the increase in consumer price was moderate. The price of industrial products went upward and the producer price index (PPI) rose 6.3% year on year, 7.7 percentage points higher than last year, ending 5-year decline. In 2017, the per capita disposable income was RMB 25,974, a year on year increase of 7.3% in real terms, one percentage point higher than that of 2016. Among it, the per capita disposable income of urban residents grew 6.5% and that of rural residents 7.3%, both in real terms.

1.2.1.4 The leading role of the service sector was strengthened, and industrial structure improved with better efficiency

In 2017, the value added of the tertiary industry was RMB 42.7 trillion, up 8.0% year on year, and continued to account for the biggest part of the GDP among the three industries, which was 51.6%, equal to that in 2016. The tertiary industry's contribution to the GDP growth was 58.8%, 0.6 percentage points higher than last year, indicating the leading role of the tertiary industry was strengthened. In 2017, the added value of statistically large enterprises increased 6.6% year on year, 0.6 percentage points higher than last year. China's industries were upgrading towards the medium-high end. High-tech manufacturing and equipment manufacturing sectors experienced rapid growth, with growth rates of value added exceeding that of statistically large enterprises by 6.8 percentage points and 4.7 percentage points respectively. The replacement of old growth drivers by new ones was accelerated, with the added value of strategic and emerging industries rising 11.0% year on year, 4.4 percentage points higher than *that of statistically* large enterprises. Efforts were intensified to cut overcapacity, and the utilization rate of industrial capacity reached 77.0%, a new high in recent five years. Good progress was made in cutting down on inventories, the unsold floor space of housing units declined further. The measures in deleveraging and cutting costs have been effective, and both the asset-liability ratio and the cost per RMB 100 of business revenue declined. During the year, investment in weak sectors increased rapidly, and investment on ecological conservation and environmental management, communal facilities management and agriculture all maintained double-digit growth.

1.2.2 Financial environment remained stable

1.2.2.1 The monetary environmeent was prudent and neutral

At end-December, outstanding broad money supply (M2) posted RMB 167.7 trillion, up 8.2% year on year, a deceleration of 3.1 percentage points from that of last year, and monetary aggregate increased steadily. Outstanding RMB deposits stood at *RMB 164.1 trillion*, up 9.0% year on year, 2.0 percentage points lower than the growth in 2016. Outstanding RMB loans grew 12.7% over last year to RMB 120.1 trillion, 0.8 percentage points lower compared to the growth in 2016; the growth of financial institution loans was relatively fast. In 2017, social financing aggregates increased RMB 19.4 trillion, added up 1.6 trillion yuan compared with that in 2016. In particular, RMB loans to the real economy increased RMB 13.8 trillion, RMB 1.4 trillion more than that in 2016, accounting for 71.2% of social financing aggregates in the corresponding period. In 2017, foreign currency loans to the real economy increased RMB 1.8 billion, and RMB 565.8 billion more than that in 2016. Entrusted loans increased RMB 777 billion in 2017, RMB 1.4 trillion less than that in 2016. Trust loans increased RMB 2.3 trillion, RMB 1.4 trillion more than that in 2016. Undiscounted bankers' acceptances increased RMB 536.4 billion, RMB 2.5 trillion more than that in 2016. Net financing by enterprise bonds registered RMB 449.5 billion, decreasing RMB 2.6 trillion compared to that in 2016. Equity financing by non-financial enterprises posted RMB 873.4 billion, decreasing RMB 368.2 billion year on year. The interest rates on deposits and loans offered by financial institutions rose moderately. In December, the weighted average interest rate on loans offered to non-financial enterprises and other sectors was 5.74%, 0.47 percentage points higher than that at the end of 2016, and the weighted average interest rates on mortgage loans was 5.26%, 0.74 percentage points higher than that at the end of 2016.

1.2.2.2 Reforms for financial institutions was pushed forward

Reform plans of development financial institutions and policy financial institutions were fully implemented. Capitalization was completed in the China Development Bank and the Export-Import Bank of China completed capitalization and the three policy banks revised their respective charters. Reform measures were orderly pushed forward, including improving the board of directors and the governance structure, and defining their respective scope of business. Risk compensation system and prudential regulation measures were improved. The new board of directors of the China Development Bank and the Export-Import Bank of China started operation on November 6, 2017 and January 15, 2018 respectively.

The function of the deposit insurance system was improved. Since its launch, the implementation has been smooth. Deposits of financial institutions grew steadily, and the distribution of deposits in large, medium-sized and small banks remained stable. The insurance limit of RMB 500,000 covers 99.6 percent of all depositors, and has remained stable. Implementation of risk-based differentiated premium rate continued while the assessment of deposit insurance risks and the premium rate mechanism was improved to provide positive incentives and limit risks. Risk monitoring and reviews of insured institutions were strengthened, and risk warnings and early correction measures were taken in accordance with the rules and regulations. Public awareness campaign of deposit insurance and professional training in deposit insurance was carried out. The premium was collected and deposit insurance fund was put under management.

Reform of the rural credit unions (RCCs) made good progress, as reflected in better quality of assets, more agricultural-linked loans, and reform of the rural property rights system was furthered. According to the five-category loan classification, at the end of 2017, capital adequacy ratio and non-performing loans (NPL) ratio of RCCs was 11.7% and 4.2% respectively, and their profits totaled RMB 248.78 billion. At end 2017, outstanding deposits and loans of RCCs posted RMB 27.2 trillion and RMB 15.0 trillion respectively, accounting for 16.1 percent and 11.9 percent of the total deposits and loans of all financial institutions during the same period. Outstanding agricultural-linked loans and rural household loans of RCCs totaled RMB 9.0 trillion and RMB 4.4 trillion respectively, up 9.5 percent and 11.6 percent year on year.

1.2.2.3 Performance of the financial sector was generally stable

Growth of banking financial institutions' asset slowed down, the growth of their profit rebounded, quality of credit assets was stable, and the NPL ratio stabilized and decreased modestly. At end-2017, outstanding RMB and foreign currency assets of China's banking financial institutions totaled RMB 245.78 trillion, up 8.6% year on year, and outstanding RMB and foreign currency liabilities grew 8.3% year on year to RMB 226.37 trillion. Outstanding NPL posted RMB 1.7057 trillion, while the NPL ratio was 1.74% and remained basically stable in the year. Net profits of commercial banks totalled RMB 1.7477 trillion, and the return on assets (ROA) recorded 0.92% while the return on equity (ROE) was 12.56%, showing relatively strong profitability. Outstanding balance of loan loss provisions was RMB 3,094.4 billion, with a provision coverage of 181.42%, provision coverage for loans at 3.16%, while the capital adequacy ratio (CAR) was 13.65%, at a comfortable level compared with international peers. Liquidity ratio of commercial banks was 50.03%, and the excess reserve ratio was 2.02%.

The assets of securities institutions increased while the profitability declined slightly. At end of 2017, assets of the 131 securities companies totaled RMB 6.14 trillion, their net assets at RMB 1.85 trillion, and net capital at RMB 1.58 trillion. In 2017, total operating revenues and net profit posted RMB 311.328 billion and RMB 112.995 billion respectively, and 120 firms made a profit.

Premium income of the insurance sector grew steadily, and the growth of overall asset of insurance companies slowed down. At end of 2017, cumulative premium income of the insurance sector totaled RMB 3.6581 trillion cumulatively, a year on year increase of 18.16%. Cumulative payments on claims and benefits rose by 6.35% from last year to RMB 1,118.079 billion. Total assets of the insurance sector reached RMB 16,748.937 billion, up 10.80% from the beginning of the year. Net assets of the insurance sector posted RMB 1.8845 trillion, up 9.31% from the beginning of the year. Outstanding utilization of insurance funds was up 11.42% from the beginning of the year to RMB 14,920.6 billion.

1.2.2.4 Cleaning up and rectification of internet finance risks progressed steadily

Along side the rapid development and extensive application of internet and information technology, internet finance has developed rapidly in China. Some business models of internet finance deviated from the direction of orderly development, and risk events occurred. The Central Committee of the CPC and the State Council made a timely decision and the special program of rectification of risks in internet finance was launched in April 2016. According to the arrangement of the *Circular of the General Office of the State Council on the Implementation Plan of the Special Rectification of Risks in Internet Finance* (the General Office of the State Council Circular No. 21〔2016〕), at the central government level, the PBC took the lead to set up a leading group on the rectification work jointly with 17 other ministries including the Central Publicity Department. The leading group was responsible for advancing the rectification work and establishing a long-term mechanism. At the provincial level, each provincial government established a leading group for the implementation of rectification plans, with the official in charge of financial sector work in the province serving as the head of the leading group, to organize the local rectification work, focusing on cases of violations of laws and regulations in six key areas, namely P2P online lending, equity-based crowdfunding, non-bank payment, internet insurance, internet asset management and internet advertising, taking concrete measures to prevent risks, and promoting the orderly development of internet finance.

On the basis of diagnostic investigations in 2016, the special rectification program moved to the next phase of cleaning-up and rectification in 2017. Local governments carried out cleaning-up and rectification in a well-sequenced way in the six key areas; meanwhile, based on the latest development of internet finance and the risk characteristics, the central level leading group made a decision on carrying out special rectification actions on virtual currency trading platforms, initial coin offerings (ICO) and cash loans. In order to steadily and orderly promote the rectification work, according to the *Circular on Further Implementing Special Rectification of Risks in Internet Finance* (PBC Circular No. 119〔2017〕) jointly promulgated by the 17 ministries, local governments classified internet finance agencies and took differentiated measures accordingly. Those agencies classified as compliance agencies were included in routine regulation; agencies that had lesser violation of laws and regulations and had relatively strong willingness to cooperate with the rectification received rectification requirements from the authorities, which clarified the timetable of exiting from illegal financial activities; agencies that had serious violation of laws and regulations or refused to cooperate with regulations and rectifications were classified as prohibited agencies and were cracked down. In the process of rectifying internet finance risks, local governments followed the requirements of strictly controlling new risks and defusing the existing risks, attached importance to differentiated measures, carried out the rectification work in an orderly manner, clarified the responsibility of financial institutions in preventing and resolving financial risks, and paid attention to preventing secondary risks arising from the rectification. After a year of cleaning-up and rectification in 2017, the number of internet finance agencies dropped significantly, and the size of noncompliance internet finance business and the outstanding business volume both witnessed decline. The trend of frequent occurrence of risky internet finance cases was contained, and the risks in internet finance was effectively controlled. Meanwhile, good progress was made in establishing long-term mechanism to manage internet finance. In accordance with the decision of the office of national leading group of rectification of risks in internet finance, the internet finance registration and disclosure platform of the National Internet Finance Association of China (NIFA) was launched on December 8, 2017, which improved the information disclosure mechanism of internet finance and enhanced market transparency, and helped protect investors' legitimate rights and interests. At the end of 2017, 3,356 internet finance agencies were in operation, and 4,539 institutions exited from internet finance activities after the launch of the rectification program. Business in violation of the regulations amounted to RMB 209.36 billion, shrinking RMB 276.5 billion since the beginning of rectification, down 56.9%. Outstanding business recorded RMB 1.04465 trillion, declining RMB 26.38 billion, down 2.5%.

2. Main features of China's financial market performance in 2017

In 2017, China's financial market was stable and efficient. The capacity of market innovation was enhanced. Progress was made in improving and establishing fundamental and systemic institutional arrangements. Opening-up of the financial market was orderly furthered, systemic financial risks was effectively prevented. The capability of financial market serving the real economy was gradually improved, and the capacity of market resources allocation was furthered.

2.1 The size of financial market continued a reasonable growth rate, and the quality of development was steadily improved

In 2017, the size of financial market grew steadily and its performance was stable. Trading volume of money market transactions including interbank lending and bond repurchases increased slightly. The development of electronic bills accelerated, with the discount electronic bills increasing 20.5% year on year. The volume of bond issuance and depository went up 12.9% and 16.2% year on year respectively, both growing within a reasonable range. Structure of stock market financing improved, with the number of enterprises participating in IPOs reaching a record high. Volatility in the secondary market further declined. Turnover of the interbank foreign exchange market continued a momentum of rapid growth, with a year on year increase of 46.5%. Trading volume of gold products increased by 11.54% year on year on the Shanghai Gold Exchange; trading through mobile internet grew rapidly by more than four times compared with 2016. Premium income of the insurance sector increased by 18.16% year on year. Internet insurance companies grew rapidly and the number of deals surged 102.6% year on year. Turnover of commodity futures decreased 25.92% year on year, and speculative activities declined further. Turnover of financial futures increased by 34.14%. The market further matured.

Along with the smooth operation, market capacity building continued. Continued progress was made in de-leveraging and containing bubbles, and the quality of financial market development was effectively improved. The monetary policy remained prudent and neutral. The interest rates in the money market moved upwards. The rollover issuance of special treasury bonds was completed; the pilot issuance of local government bonds continued; and green bonds were pre-issued. Optimization of the bond issuance mechanism contributed to the steady operation of the financial market, and effectively improved the efficiency of price discovery and market liquidity. A series of stock market fundamental institutional arrangements were improved, including issuance, share holding reduction and market exit, and market ecology had positive development. A "counter-cyclical factor" was introduced into yuan's central parity exchange rate mechanism to fully reflect the reasonable changes in market supply and demand and achieved good results. The international board of China's gold market steadily grew, and the settlement of cross-border fund was stable and orderly. Risk prevention in the insurance industry was strengthened. Shanghai Insurance Exchange was established; the insurance trading platform within the exchange made progress. At end 2017, 54 commodity futures products were traded in China's future markets, representing a larger group of products, and the soybean and sugar options were traded smoothly. Over-the-counter exchange rate derivatives and interest rate derivatives was more diversified. Market mechanisms and platforms were optimized, and trading on the markets was brisk.

2.2 Market innovation accelerated, and the financial market provided effective and targeted services to the real economy

In 2017, in order to provide service to the real economy, the financial market intensified efforts in innovation, and returned to the fundamental purpose of serving the real economy. The issuance of asset-backed securities of the Public-Private Partnerships (PPP) projects fully tapped the role of financial sector in market-based financing, attracting social capital, and improving efficiency of project management. Panda Bonds and corporate bonds for the Belt and Road Initiative were issued in the interbank market and the exchange market respectively. *Financial cooperation* between domestic financial institutions and their peers in countries along the Belt and Road Initiative was strengthened to realize breakthrough in across-sector and in-depth financial services for the development of the Belt and Road Initiative. Entrepreneurship and Innovation Specific debt financing instrument was issued for the first time, adding innovative products to the Entrepreneurship and Innovation bond market. The release of relevant policies for pilot Entrepreneurship and Innovation bond issuance provided the institutional foundation for the expansion of the Entrepreneurship and Innovation bond market, and created new opportunities for the development of such bonds. Several local government special bonds and special bonds for various sectors were successfully issued, allowing financial market to play an active role in supporting the local infrastructure building and healthy development of various sectors in a scientific and effective way. The insurance industry focused on agro-linked sectors, poverty alleviation projects and internet information security in its product and service innovation this year.

In 2017, China's financial market provided efficient and targeted service to the priority areas and weak links of economic and social development, rendering support for the development of ecological civilization, transformation of economic structure, poverty alleviation, and etc. The Guidelines for the Assessment and Certification of Green Bonds improved the top-level design of the green financial system. Green credit asset securitization products and green asset backed bills offered a new mode for financial instruments to promote the development of the green industry. The mandatory environment information disclosure system of listed companies was improved. The plan of a national carbon trading market was released. China's Green financial market entered a new stage of comprehensive development. The development of a series of financial products, including the public offered REITs in the interbank market, special bonds for debt-to-equity swap, special corporate bonds for residential leasing, and securitizations related to long-term apartment rental, helped implemented the five priority tasks of cutting overcapacity, reducing excess inventory, deleveraging, lowering costs, and strengthening areas of weakness, and promoted the housing system reform and the relevant long-term mechanism; supported the structural transformation of the real economy, and effectively improved the ability of financial market in serving the real economy. The poverty alleviation micro-credit management system provided a right track for poverty alleviation micro-credit, enabling micro-credit to play a role in targeted poverty alleviation. The pilot project of "Insurance plus Futures" was steadily expanding. Apple futures were traded on the Zhengzhou Commodity

Exchange. These were important measures to accelerate innovation in rural finance, in which financial market supported the economic development of poor areas, and implemented the national strategy of poverty reduction.

2.3 Regulation of the financial market was strengthened to prevent systemic risks in a proactive way

In 2017, potential risks accumulated to some extent in the financial market; based on the invisibility, complexity and contagious nature of financial risks, comprehensive supervision was enhanced, and financial market regulatory mechanism was improved. The Office of the State Council Financial Stability and Development Committee was set up, the regulatory coordination mechanism was put in place. Bond trading was further regulated for market participants, by clarifying relevant internal control system of bond trading in Over-the-Counter market and Exchange-Traded Markets, thus facilitating risk prevention and the long-term, sound development of the bond market. Regulation standards were unified for asset management products of the same category, and the integration of institutional and functional regulations effectively reduced the regulation vacuum and arbitrage. Rules and regulations were revised and promulgated, including the fundamental laws and regulations of the capital market, rules for the issuance and trading in the stock market, administrative rules for listed companies and that for the stock exchanges, which established the institutional environment for the standardized and sound development of the stock market, and laid a solid foundation for preventing and defusing major risks in the capital market. The Financial Technology Committee was established to intensify the application of technology in regulation, and enhance the role of financial technology in regulation. The interbank market introduced various risk-hedging products to reduce credit risks in the market. The Shanghai and Shenzhen Stock Exchanges revised several implementation rules to smooth out the volatility of repo interest rates in the exchange markets, and safeguard the order of trading and settlement in the securities market.

In 2017, the financial regulatory authorities took measures to prevent and controll systemic risks in the financial sector, firmly safeguarded the bottom line in terms of preventing systemic financial risks, and strengthened regulation in a comprehensive way in accordance with the law. Clean-up and rectification of local government financing guarantee activities was carried out comprehensively to further regulate local government financing. Special rectification of risks in internet finance was promoted orderly, which laid a solid foundation for the long-term and healthy development of the internet finance and inclusive finance. Risks in initial coin offerings (ICOs) were prevented, illegal issuance and financing activities of ICOs were prohibited, to maintain a normal economic and financial order. Irregularities in the stock market including speculation in violation of regulations were cracked down. Regulations were enhanced in information disclosure in the style of "all the way through to the root" and operational oversight, and the cross-border regulation and joint law-enforcement operation of the securities market was strengthened. Following the implementation of measures to enhance regulations, prevent risks, address irregularities, and strengthen areas of weakness, the business structure of the insurance sector kept improving and sector transformation yielded initial results. Regulatory rules for different types of financial institutions were released. The assets and liabilities of interbank transactions of commercial banks recorded reduction for the first time since 2010, and the growth of the off-balance-sheet activities declined month by month, indicating the business activities became more rational and complied with regulatory rules.

2.4 Opening-up was intensified in an orderly way, and the financial market had a larger influence globally

In 2017, efforts were made in steadily implementing the opening-up strategy in priority areas and key aspects of the financial market, and in facilitating optimization and improvement of domestic financial institutions and financial market structure. The Panda Bond market grew steadily, as trading became increasingly brisk and prompted market innovations. The financial market was opened up wider. Mutual Bond Market Access between Mainland China and Hong Kong SAR (the Bond Connect) was launched, and relevant business rules were promulgated, which gradually promoted overseas investors to access the interbank bond market, and RMB bond holdings by overseas institutions increased significantly. The compatibility and internationalization of the financial market operating mechanism was enhanced. Overseas institutional investors could participate in RMB foreign exchange derivatives trading in the interbank market, and overseas credit-rating agencies were allowed access to credit-rating business in interbank bond market, representing a higher-level financial market access. The administrative mechanisms of QFII and RQFII were gradually improved. The draft rules for full convertibility pilot program of listing companies in H-share market were released, deepening the reform for overseas listing mechanism. Market share of foreign insurance companies went up steadily. The financial institutions built their own capacity in orderly competition while institutional arrangements of financial markets were being improved.

In 2017, RMB internationalization and two-way opening-up of the financial industry promoted the continued improvement of the financial system, and increased the global influence of China's financial market. A-share Index, T-Bond Index, policy bank bond index and various indexes of bonds in the interbank bond market were included in the emerging markets indexes by investors in the international market, reflecting the international recognition of China's economic development and strength of China's financial market. The Shanghai Gold futures contract products were launched in Dubai Gold and Commodities Exchange, the first application of Shanghai Gold Benchmark Price in international financial market. In cooperation with important infrastructure institutions and market service institutions in the international financial market, including setting up joint ventures, domestic worked together with their international peers and participated in various areas of international and domestic financial markets.

3. Outlook of China's financial market development in 2018

The year 2018 is the first year of implementing the spirit of the 19th National Congress of the Communist Party of China, the 40th anniversary of China's reform and opening-up, and a crucial year for securing a decisive victory in building a moderately prosperous society in all respects and in the implementation of the 13th Five-Year Program. Development of the financial market will follow the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, fully implement the spirit of the 19th CPC National Congress and the decisions of the Central Economic Work Conference and National Financial Work Conference, adhere to the principle of pursuing progress while ensuring stability, gain a strong understanding of and put into practice the new development philosophy, fully understand the transformation of principal contradiction of the Chinese society, follow requirement of high-quality development, continue to regard supply-side structural reform as the main task, fully implement the three tasks of making the financial sector better serve the real economy, containing financial risks and deepening financial reforms, work hard to reform and open up further, make the financial sector better serve the real economy with intensified efforts, and promote a smooth and healthy development of the financial market.

3.1 Capability of the financial sector in serving the real economy will be further improved

We will follow the new development philosophy and the high-quality development requirements, take facilitating supply-side structural reform as the main task, focus on improving the efficiency and quality of financial services for the real economy, allocate more financial resources to the priority areas and weak links of economic and social development through market-oriented and law-based approaches, facilitate financing and reduce cost of the real economy. Institutions and mechanisms for sustainable development will be established to enhance the support of financial market for the real economy. Developing direct financing will be given high priority in a bid to establish a multi-layered capital market with sound and comprehensive financing functions, solid fundamental institutions, where regulation is effective and investors' legitimate rights and interests are protected. The insurance sector will continue to go back to its fundamental functions. Efforts will be made to speed up the development of modern insurance service in the new era, to facilitate the role of insurance sector in long-term risk management, to better support the development of a modern economic and social system. Measures will be taken to accelerate the development of green finance, financial technology and financial inclusion, to improve the mechanism of financial support for poverty alleviation, to further improve the capability of financial market in serving priority areas of national economy such as supply-side structural reform, green development and targeted poverty alleviation, as well as poor areas, and to facilitate the adjustment, optimization, transformation and upgrading of economic structure, so as to win the critical final phase of the battle on poverty. Financial market will support the implementation of major national strategies, including technology and innovation, Made in China 2025, reform of the State-owned Enterprises (SOEs), coordinated development of regional economy, integrated military and civilian development, rural revitalization, and pollution control.

3.2 Continuous efforts will be made in preventing and defusing financial risks

Regulatory system of the financial market will be improved to strengthen coordinated regulation, and more importance will be attached to preventing and defusing financial risks. Based on the fundamental requirement of financial sector serving the real economy, efforts will be made to reinforce financial regulation, risk monitoring, assessment and early-warning system, to focus on defusing financial risks in key areas, to improve financial security defense and emergency response system, and to safeguard financial security and stability. Macro-prudential policy framework will be further improved, to explore ways to include more financial activities and financial markets in the macro-prudential management. Regulation on the financial market will be strengthened in a comprehensive and strict way in accordance with the law. RegTech in financial market regulation will be promoted to apply science and technology, to make regulation smarter and more intelligent. Transaction activities in the financial market will be strictly regulated; violations of laws and regulations in the financial market will addressed more strictly. Risk monitoring and prevention will be enhanced in fields such as internet finance, cross-border capital flows, cross-sector and cross-market financial activities, as well as various integrated operations. Special rectification work for internet finance risks will be pushed forward prudently and orderly. There will be studies on drafting more comprehensive asset management business standards, to enhance regulation over substances and look-through regulation covering all business activities. The principle of deleveraging in an active and prudent way will be carried out unswervingly, focusing on deleveraging of SOEs, and prudently advancing deleveraging of the financial sector. Bond market default risks will be properly handled and the market- and law-based default resolution mechanism will be established to protect the legitimate rights and interests of investors. Local government borrowing activities will be further regulated to prevent and mitigate local government debt risks. Institution arrangements and mechanisms and the financial regulatory system will be improved, while the Committee of the State Council for Financial Stability and Development will fulfil its duties. The mandate of the PBC in macro prudential management and systemic risk prevention will be strengthened. Coordinated financial regulation will be reinforced, and a holistic approach will be adopted to effectively resolve financial risks, and firmly safeguard the bottom line of preventing systemic financial risks.

3.3 Financial market reform will be deepened comprehensively

Market-based interest rate reform will continue. In order to deepen the financial market, measures will continue to be adopted to develop market-based benchmark rates, to improve the yield curves of government securities, and to improve the interest-rate transmission mechanism. Market-based RMB exchange rate regime will be further improved to allow the market to play a greater role in determining the exchange rate, to enhance the two-way flexibility of the RMB exchange rate, and to keep the RMB exchange rate basically stable at an adaptive and equilibrium level. A multi-layered capital market will be developed to maintain its sound operation, to increase the share of direct financing, to better serve the real economy and provide financial support to development of a modern socialist country. Efforts will be made to develop the bond market, to promote product and institution innovations in the bond market, to develop asset securitization, to unify regulatory standards, and to improve institutional and infrastructural framework including information disclosure, credit rating, clearing and settlement of transactions, accounting, auditing and taxation, and mutual access of financial infrastructure. Operational rules of the stock market will be improved, to regulate and broaden market access of all kinds of capital, to speed up reform of the issuance, merger and acquisition mechanisms, to improve market exit system, to implement full tradability pilot program of H-share market. Reform of New Third Board will be deepened to promote an orderly development of regional equity market, venture capital and angel funds. Development of the foreign exchange market will be steadily pushed forward, to further deepen the reform of foreign exchange regulation system, facilitate trade and investment, and improve the foreign exchange regulation and policy implementation. On insurance market, the institutional arrangement development and opening-up will be deepened, to optimize the market structure, to strengthen its function of risk prevention, to enhance and improve regulation on insurance, to improve the quality and efficiency of insurance supply system, for the purpose of achieving sustainable development of the insurance sector. Development and regulation of the bill market will continue to be advanced. Institutional arrangements of the gold market will be strengthened. Derivatives market will be developed in a healthy way, to provide price discovery and risk management services for corporate entities.

3.4 Opening-up of the financial market will be furthered

It is necessary to have open and inclusive institutional arrangements, and orderly and free flow of economic factors to maintain long-term economic growth. A new pattern of all-around opening up is needed to promote high-quality economic development. Two-way opening-up of the financial market will continue in the principles of independence, good sequence, equality and security. Opening-up of the financial market will be further strengthened, to support the Belt and Road Initiative, to enhance mutual market access of financial market infrastructures and opening-up, to establish a modern financial market system open to all other countries, to build a financial market system oriented towards the international participants, promote financial market rules to be more compatible with international standards based on China's actual conditions. The institutional arrangements and mechanisms for financial market opening-up will be established and improved to protect the legitimate rights and interests of consumers, to strengthen orderly competition in the financial market, and to prevent financial risks. Progress will be made in further expanding the scope and raising the quality of financial market opening up, easing the market access restrictions for overseas financial institutions, promoting the adoption of pre-establishment national treatment plus negative list in the financial market. Efforts will be made in developing Panda bond market, steadily pushing forward RMB internationalization, broadening local currency settlement in bilateral trade and investment and bilateral cooperation in the use of local currencies, further improving the policy framework and infrastructure for the cross-border use of RMB , and advancing the convertibility of capital account in a steady and orderly way.

Part II Money Market

In 2017, the money market performance was generally stable. The interbank lending volume declined while the trading volume of bond repo and interbank NCD expanded. The digitization of the bill business continued to accelerate, and the bank acceptance bills maintained its dominating share in the market. The overall market interest rates moved up moderately amidst increased volatility and the term structure optimized. The market infrastructure and transaction supporting arrangements have been further improved.

1. Interbank lending market

In 2017, the overall operation of the interbank lending market was stable. The structure of participants improved, while the trading volume declined. The lending interest rates went up with increasing volatility, and the short-term maturities still dominated all the trading terms.

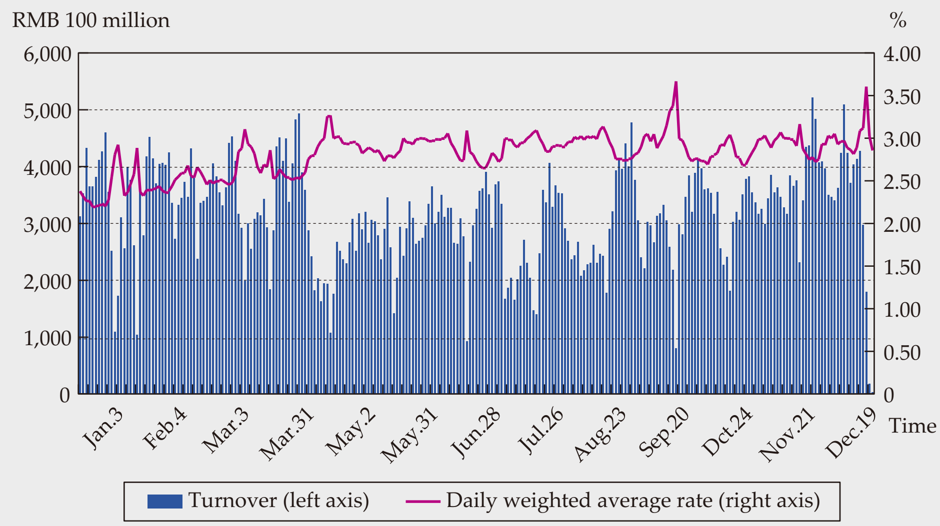
1.1 Performance of the interbank lending market

In 2017, the trading volume of interbank lending market totaled RMB 78.98 trillion, with an average daily trading volume of RMB 314.666 billion. Within the year, the peak and trough monthly trading volume was RMB 8.3 trillion in December and RMB 5.48 trillion in October respectively. The weighted average interest rate was 2.77%, with the highest point of 3.6668% being registered on September 30, and the lowest of 2.1948% being registered on September 1.

The short-term maturities still dominated the trading terms of interbank lending transactions. The transactions with a maturity of 7 days and less amounted to RMB 76.03 trillion, accounting for 96.27% of the total, down 0.96 percentage points from the previous year. In particular, the trading volume of O/N products was RMB 67.98 trillion, accounting for 86.07% of the total, down 1.48 percentage points from the previous year; the share of 7-day interbank lending volume in total was 10.02%, up 0.52 percentage points over the previous year; The share of interbank lending with maturities between 14-day and 3-months was 3.57%, up 0.96 percentage points from the previous year; and the share of interbank lending transactions with a maturity of more than 3 months was 0.16%, basically flat with the previous year.

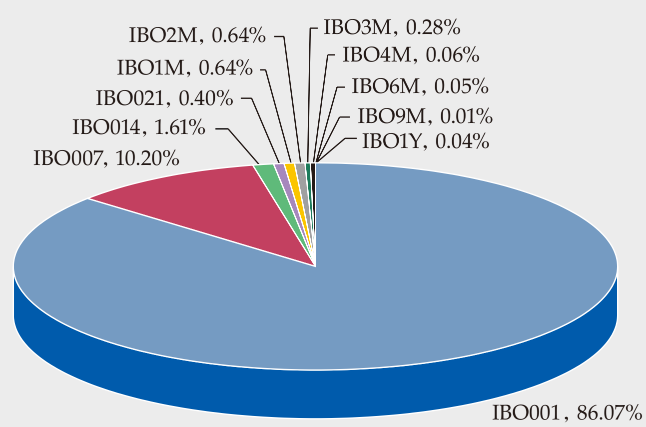
The participants in the interbank lending market were mainly banking institutions, which accounted for 87.26% of the trading volume. Among them, the joint-stock commercial banks accounted for 38.21% of the total trading volume, higher than any other group; the share of large-scale commercial banks, urban commercial banks and policy banks was

Figure 2.1 Interbank lending volume and interest rate movement, 2017



Source: National Interbank Funding Center.

Figure 2.2 Term structure of interbank lending, 2017



Source: National Interbank Funding Center.

16.11%, 15.24% and 8.28% respectively in the total trading; among the non-bank financial institutions, the securities companies and financial companies traded most actively, accounting for 7.68% and 3.52% respectively.

In 2017, among the net lenders, the policy banks had the largest net lending volume in the interbank lending market, with an accumulative net lending of RMB 12.27 trillion, accounting for 39.51% of the total net lending, followed by large-scale commercial banks and joint-stock banks, with a net lending volume of RMB 10.86 trillion and RMB 6.42 trillion respectively, accounting for 34.99% and 20.67% respectively. Among the net borrowers, the city commercial banks, securities companies and financial companies had the largest net borrowing volume of RMB 12.19 trillion, RMB 12.00 trillion and RMB 3.74 trillion respectively, accounting for 39.27%, 38.65% and 12.04% respectively.

1.2 Main features of the interbank lending market

1.2.1 Market participants were increasingly diversified

In 2017, the number of participants in the market continued to grow. The institutional members in the interbank lending market totaled 1,958 at the end of the year, up 233 over the previous year. Consumer finance companies entered the interbank lending market as a new category of financial institution, increasing the categories of market participants from 9 in 2016 to 10 in 2017. At end 2017, a total of four consumer finance companies became members of the interbank lending market. In addition, ICBC Doha Branch joined the interbank lending market as an offshore RMB clearing bank. At the end of the year, a total of 10 overseas RMB clearing banks were members of the interbank lending market.

1.2.2 Trading volume declined

In 2017, the trading volume in the interbank lending market decreased 17.65% from the previous year, representing a reduction of nearly 70 percentage points as compared with the growth of 50% in 2016, and a second year of negative growth since the release of the *Administrative Measures on Interbank Lending* [Decree No. 3 of the People's Bank of China (2007)] in 2007. The monthly turnover fell year on year from April to September and again in November 2017, whereas in the remainder months the monthly turnover increased year on year. The largest decline in monthly turnover was recorded May to August, down 40% or so in each of the months as compared with the same period of last year.

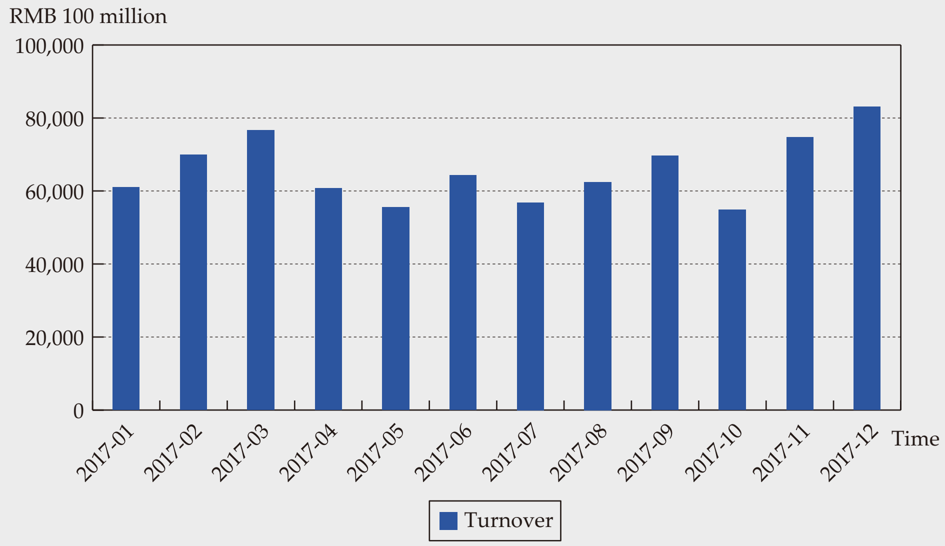
1.2.3 The market interest rates went up with higher volatility

In 2017, the interbank lending rate increased by 59.41 bps year on year. The range difference between the highest and lowest of the daily weighted rate was 147.20 bps in 2017, up 60.23 bps from the previous year. The volatility of the daily weighted rates of the O/N and 7D interbank lending was 21.32 bps and 30.94 bps respectively in 2017, up 10.13 bps and 17.33 bps respectively from 2016.

1.2.4 The non-bank financial institutions borrowed with widening spreads

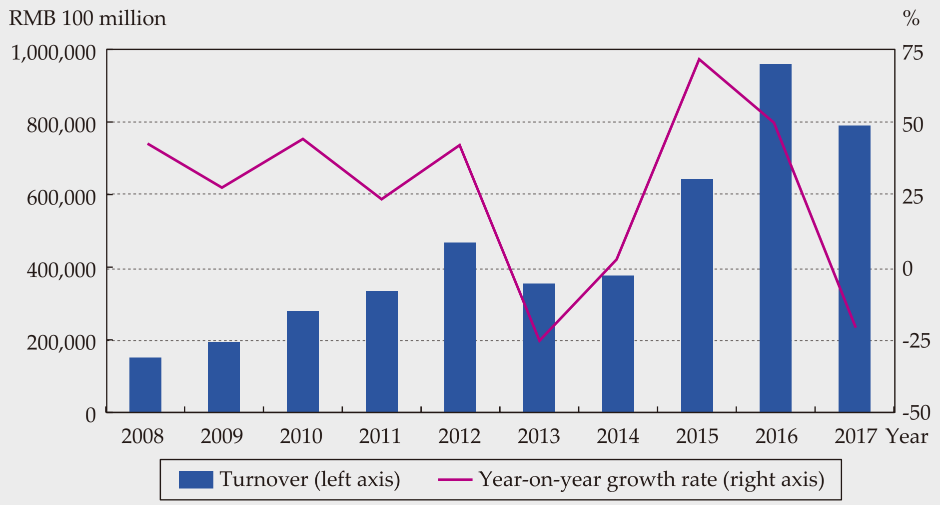
In 2017, the borrowing cost of non-bank financial institutions was generally higher than that of the banks, and the spread widened from the previous year. The weighted average rate of interbank borrowing of non-bank financial institutions was 3.02%, 24.95 bps higher than the market average, 32.11 bps higher than

Figure 2.3 Interbank lending market trading volume in 2017



Source: National Interbank Funding Center.

Figure 2.4 Trading volumes and growth rates of the interbank lending market, 2008—2017



Source: National Interbank Funding Center.

that of banking financial institutions, and the spread widened by 10.16 bps and 12.34 bps respectively over the previous year. In addition, the spread of medium and long-end funding increased significantly. The spread of trading varieties of 7D and above and the market average have increased by about 20 bps year on year, and the spread of the O/N and 7D trading varieties have increased by 3.64 bps and 9 bps respectively year on year.

1.3 Outlook of the interbank lending market

The interbank lending market will enter a new stage of development. Firstly, the opening-up of the interbank lending market will continue, with a larger and more diversified contingent of market participants, and the membership structure will be more optimized. Secondly, the marketization process will accelerate. The market infrastructure will improve, and infrastructure services such as transaction quotations, deal execution, clearing, and market statistics will be enhanced. Thirdly, the supervision and oversight system will be improved. Focusing on macro-prudential risk management and control, both the in-event and post-event management will be strengthened to control market risks.

2. Bond repo market

In 2017, the overall bond repo market remained stable. The market institutional arrangements and infrastructure continued to improve, and trading volume expanded further. The repo rates edged up with higher fluctuations. The market share of medium-to-long-term products increased while the structure of pledged bonds was optimized.

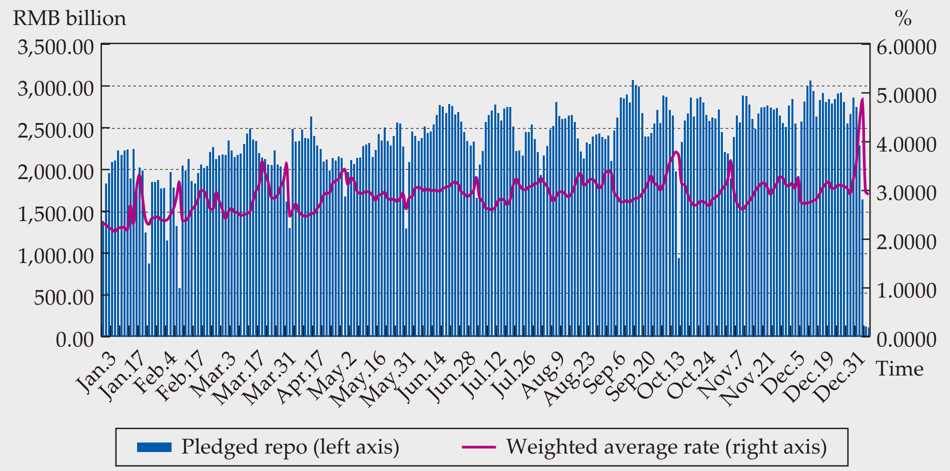
2.1 Performance of the bond repo market

In 2017, the cumulative turnover of the bond repo market was RMB 854.2 trillion, up 4.51% year on year. Among them, the cumulative turnover of the interbank bond repo was RMB 616.37 trillion, up 2.51% year on year; the cumulative turnover of exchange-traded bond pledged repo was RMB 256.67 trillion, up 11.19% year on year. In the interbank bond market, the cumulative turnover of pledged repo was RMB 588.26 trillion, up 3.52% year on year; the cumulative turnover of *outright* repos was RMB 28.11 trillion, down 14.90% year on year. In the exchange market, the cumulative turnover of pledged repo of the Shanghai Stock Exchange was RMB 237.83 trillion, up 9.86% year on year; the cumulative turnover of pledged repo of the Shenzhen Stock Exchange was RMB 18.84 trillion, up 31.32% year on year.

The interest rates of the interbank bond repo market fluctuated more and went up compared with the previous year. The weighted average rate of pledged repo was 2.92%, up 73 bps from 2016, with the highest point of 4.84% registered on December 29, and the lowest point of 2.16% registered on January 9, and the range difference of interest rate spread was 268 bps, up 160 bps from 2016. The weighted average rate of outright repo was 3.32%, up 77 bps from 2016, and the range difference of interest rate spread was 250 bps, up 97 bps from 2016.

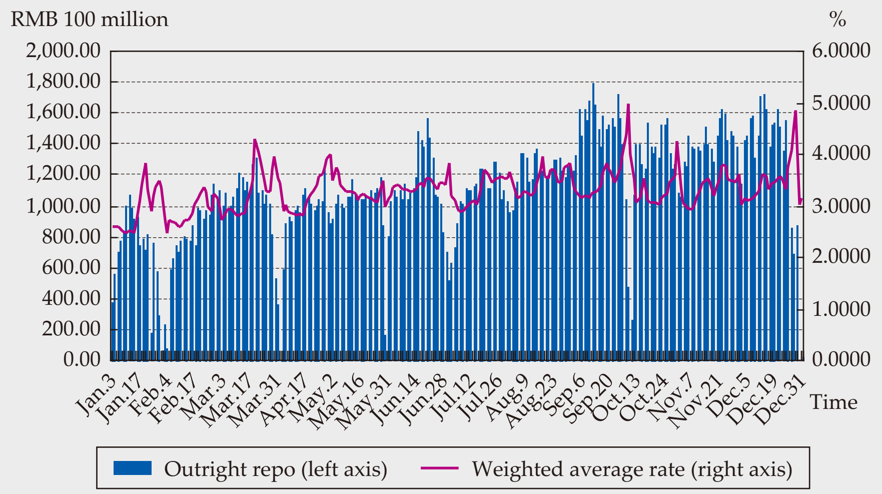
The interest rates of the exchange pledged repo market also went up year on year, and the volatility increased. The average 1D fixing repo rate was 4.10%, up 152 bps from the previous year, with the highest of 16.79% and lowest of 1.12%; the average 7D fixing repo rate was 4.07%, up 140 bps from the previous year, with the highest of 12.90% and lowest of 1.94%.

Figure 2.5 Volume and price of interbank pledged repo market, 2017



Source: Chinamoney.com.cn.

Figure 2.6 Volume and price of interbank outright repo market, 2017



Source: Chinamoney.com.cn.

2.2 Main features of the bond repo market

2.2.1 The trading volume of repo market increased slightly, but that of outright repo declined further

In 2017, the trading volume in the interbank bond repo market increased slightly, up RMB 15.07 trillion over the previous year, a deceleration of 28.85 percentage points from the previous year. In particular, the trading volume of outright repo decreased 14.90% year on year, the first decline since 2011 and the second decline since the introduction of the business in 2004. The exchange repo market remained relatively stable, with an annual trading volume of RMB 256.67 trillion and up 11.19% year on year.

2.2.2 Short-term transactions still dominated the market, but the share of medium and long-term transactions had an upward trend

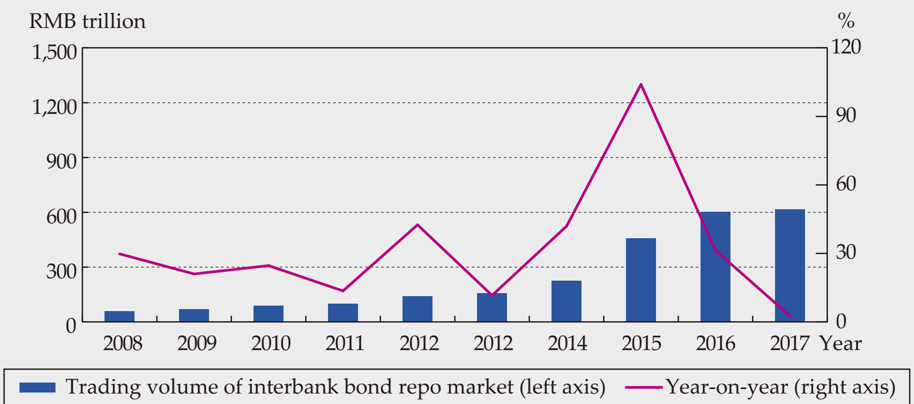
Looking at the term structure, the share of pledged repo transactions with a term of up to 7 days was 93.68%. The pledged repo transactions with a term of above 7 days accounted for 6.32%, up 2.72 percentage points from 2016, among which that of the 14D varieties accounted for 4.02%, up 1.59 percentage points, and the share of the 21D and above varieties was 2.30%, up 1.17 percentage points from 2016. As for the term structures of outright repo transactions, the share of the 7D and above varieties was 10.25%, up 3.66 percentage points from 2016.

The exchange repo market is also dominated by short-term products with a maturity of less than 7 days, accounting for 98.1% of the market total. In 2017, the combined volume of exchange repo transactions with a maturity of 7 days and 14 days accounted for 8.8%, up 2.1 percentage points from the 2016 average level.

2.2.3 Government bonds and policy bank bonds were the main underling assets of repo transactions

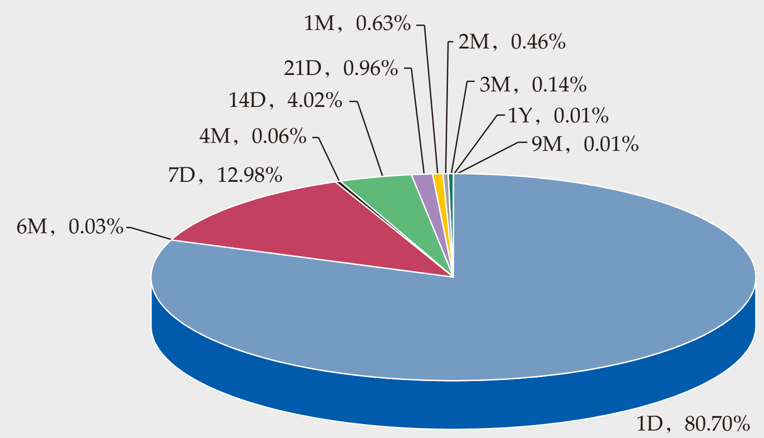
In 2017, the share of policy bank bond repo transactions decreased from 42.05% to 39.88%,

Figure 2.7 Scale and growth rate of interbank market bond repo trading volume, 2008—2017



Source: Chinamoney.com.cn.

Figure 2.8 Structure of pledged repo transactions in the interbank market for 2017



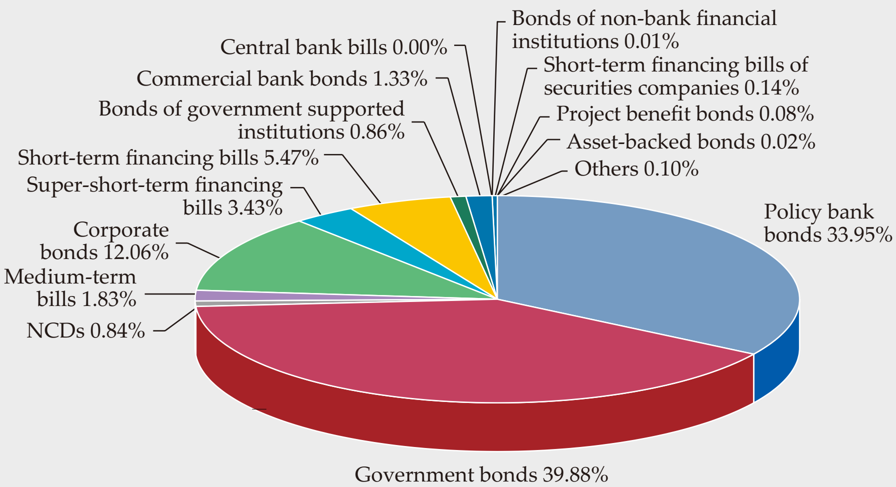
Source: Chinamoney.com.cn.

a decline of 2.17 percentage points, continuing the downward trend in 2016; the share of government bond repo transactions increased from 32.57% to 33.95%, up 1.38 percentage points; the percentage of pledged repo transactions with commercial papers, super-short-term commercial papers, medium-term notes, collective notes, or corporate bonds as underling assets was 11.58%, down 2.13% from 2016.

In 2017, the percentage of outright repo transactions with government bonds and policy bank bonds as underling assets was 58.75%, up 10.80 percentage points from 2016. Among them, the percentage of outright repos using policy bank bonds as underling assets increased from 35.25% to 39.44%, up 4.19 percentage points; the percentage of outright repos using government bonds as underling assets was 19.31%, up 6.62 percentage points; the percentage of outright repos with commercial papers, super-short-term commercial papers, medium-term notes, collective notes or corporate bonds as underling assets decreased from 44.48% to 22.50%. Among them, the outright repos of corporate bonds saw a substantial decline, falling from 17.93 % to 8.67 %, continuing the downward trend in 2016.

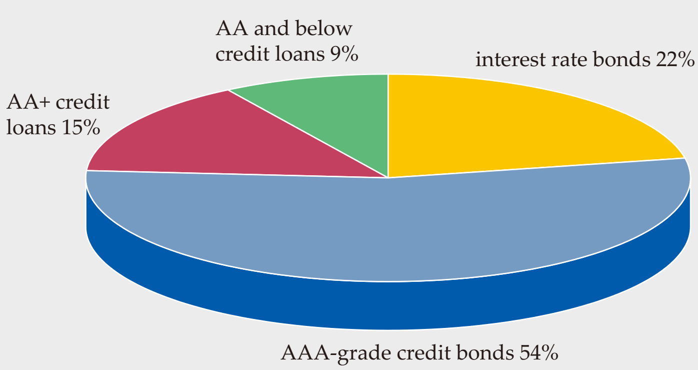
The structure of pledged bonds on the exchange repo market continued to improve. Pledged bonds were mainly interest rate bonds and AAA-grade credit bonds, accounting for 76.3% of the market total, up 9.6 percentage points over last year. Specifically, in the structure of pledged bonds, interest rate bonds accounted for 22.2%, basically leveled with the previous year; the AAA-grade credit bonds accounted for 54.1%, up 9.6 percentage points from the previous year, and credit bonds rated AA+ or below accounted for 23.7%, down 9.6 percentage points year on year.

Figure 2.9 Structure of pledged repo transactions in the interbank bond market, 2017



Source: Chinamoney.com.cn.

Figure 2.10 Structure of pledged repo bonds in exchange market in 2017



Source: China Securities Depository and Clearing Co., Ltd..

2.2.4 Policy banks, large-scale commercial banks and joint-stock commercial banks were at the lending side

From the perspective of the net fund flow, the policy banks, large-scale commercial banks, and joint-stock commercial banks *were the largest net lenders*, with a net lending of RMB 107.59 trillion, RMB 72.73 trillion, and RMB 34.83 trillion respectively. The largest borrowers were unincorporated financial products, rural financial institutions, and non-bank financial institutions, with a net borrowing of RMB 80.76 trillion, RMB 54.44 trillion, and RMB 42.22 trillion respectively.

2.2.5 The volatility of the repo rate increased

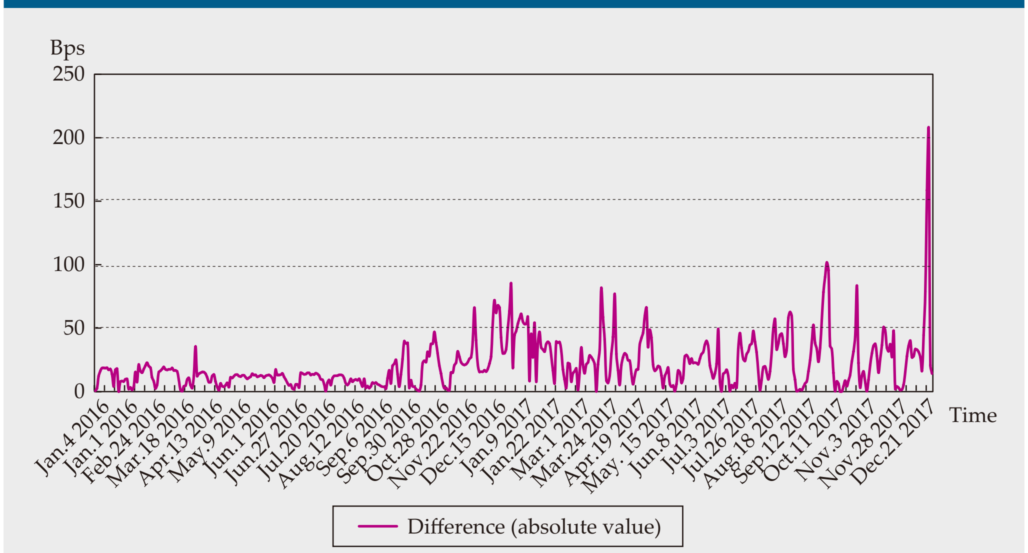
In 2017, the standard deviation of the daily weighted average rates of pledged repo was 0.34, up 68.21% as compared with the 0.20 in 2016; the standard deviation of the daily weighted average rate of outright repos was 0.39, up 62.57% as compared with the 0.24 in 2016. Taking the pledged repo which had an dominant share in the total transactions as an example, in terms of the absolute difference between the daily weighted average rate and the annual weighted average rate, the volatility of the repo rate also increased in 2017.

2.2.6 Regulation of bond repo market standardization strengthened

On December 29, 2017, the People's Bank of China, the China Banking Regulatory Commission, the China Securities Regulatory Commission, and the China Insurance Regulatory Commission jointly issued the Notice on Regulating Bond Transactions of Bond Market Participants (Yin Fa〔2017〕No. 302) to specify requirements on the internal control and risk management of repo transactions, to regulate the repo transactions, and to control leveraging within a reasonable level; to achieve the objective of a smooth and orderly reduction of bond market risks, it also provided for a one-year transition period to guide market participants to improve the internal risk control mechanisms, regulate the behavior of repo transactions and effectively control the leverage ratio of bond transactions.

The China Securities Depository and Clearing Co., Ltd. issued the Guidelines on the Access Criteria of Pledged Repo Qualifications and

Figure 2.11 Interest spread between bond repo rate and interbank offered rate, 2016—2017



Source: Chinamoney.com.cn.

Value Setting of Discount Coefficients for Standard Securities (2017 Revision) (Zhong Guo Jie Suan Fa Zi〔2017〕No. 47), which raised the threshold of credit bonds acting as collaterals for all transactions after the cut-off point to promote continuous optimization of the structure of pledged bonds. The Shanghai and Shenzhen Stock Exchanges revamped relevant business rules; improved the pledged repo rates mechanism, and increased the stability of repo rates. China Securities Depository and Clearing Co., Ltd., Shanghai and Shenzhen Stock Exchanges jointly issued the Guidelines for Data Reporting of Bond Pledged Repo Financing Participants (Zhong Guo Jie Suan Fa Zi〔2017〕No. 153) and the related statements, establishing the repo data reporting and risk monitoring mechanisms, and comprehensively strengthening the dynamic monitoring and early warning by market entities for the sound development of the repo market.

2.3 Outlook of the bond repo market

In 2018, China's bond repo market is expected to continue the steady and healthy development. The trading volume in the interbank bond repo market is likely to remain stable, and the shift to longer tenor in the repo transaction will likely continue. The investors will diversify further and the market structure will become more reasonable. The outstanding volume of the exchange bond repo market will remain stable overall, and the leverage will decline. The structure of pledged bonds is expected to improve. The exchange bond repo market system will be further improved. The Shanghai and Shenzhen Stock Exchanges will launch a tripartite repo business in addition to the existing pledged repo and agreement repo to better serve various institutional investors.

3. NCD market

In 2017, the NCD market grew rapidly with the scale of issuance and custody both increasing significantly; the issuer base and subscriber base both expanded in an orderly manner; in the tightly-balanced liquidity environment, the issuing rate of NCDs continued to rise, and the issuers increasingly shifted to short-term products; trading in the secondary market became more liquid, supported by active trading.

3.1 The performance of the NCD market

In 2017, a total of 547 institutions issued NCDs, up 54 over the previous year; 26,954 NCDs were issued, up 10,483 over the previous year; the issuance amount was RMB 20.2 trillion, up 54.9% year on year; the number of subscription entities stood at 4,779, up 2,655 over the previous year. At end-2017, the balance of NCDs stood at RMB 8 trillion, up 27.5% year on year.

In 2017, a total of 631,578 NCD transactions were concluded in the secondary market. The turnover surged 61.0% year on year to RMB 112.9 trillion, among which, the turnover of pledged repo transactions posted to RMB 71 trillion, up 45.8% year on year, and accounting for 62.9%; the transactions concluded via cash bond deals amounted to RMB 37.1 trillion, up 87.4% year on year, accounting for 32.8%; the outright repo traded RMB 4.8 trillion, up 190.8% year on year, accounting for 4.3% of the total; and the bond lending transactions amounted to RMB 980 million.

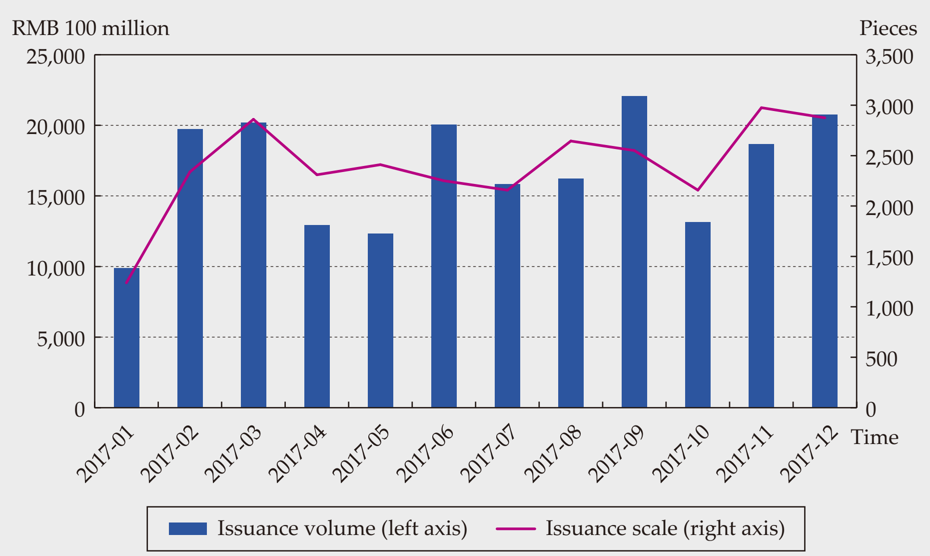
3.2 Main features of the NCD market

3.2.1 The issuance volume was large, and city commercial banks and joint-stock commercial banks remained the major issuers

Since its establishment at the end of 2013, the market for NCDs has developed rapidly. From 2014 to 2016, the issuance volume of NCDs grew more than 100% on average annually. In 2017, the growth rate of NCDs issuance volume was 54.9%, declining slightly from the previous year, but still ranking first among the major issuance varieties. Affected by fund availability factors, the issuance volume of NCDs generally went up at the end of each quarter. On average, the quarterly issuance volume was RMB 5 trillion. In Q2, as a result of tightened supervision of interbank transactions, the quarterly issuance volume fell to RMB 4.5 trillion, the lowest in the whole year; in Q3, due to the relatively stable bond market and the re-issue pressure from the massive maturity, the issuance amount rebounded to a yearly high of RMB 5.4 trillion.

City commercial banks were the largest issuer of NCDs, with an issuance amount of RMB 8.8 trillion, accounting for 43.5% of the market total, up 6.2 percentage points from the previous

Figure 2.12 Monthly issuance of NCDs in 2017



Source: China Foreign Exchange Trade System.

year. As their NCD business was included in the macro-prudential assessment (MPA), the growth rate of NCD issuance volume of joint-stock commercial banks moderated notably. Their annual issuance amounted to RMB 8.4 trillion, accounting for 41.6% of the market total, down 5.8 percentage points from the previous year. The share of rural financial institutions, large-scale commercial banks and other deposit-taking institutions in NCD issuance remained basically stable .

3.2.2 The issuing rates continued to rise, basically fluctuating around Shibor

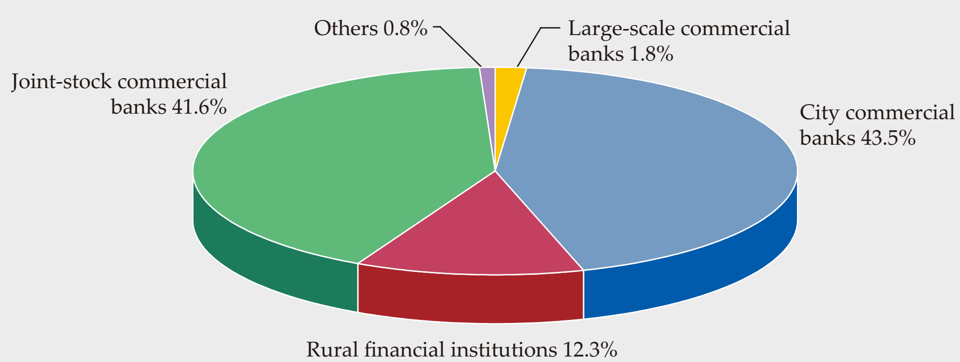
The issuing rate of NCDs continued to rise. At the end of 2017, the average issuing rate of 3M NCDs of joint-stock commercial banks, as a market benchmark, hit a record high in the year, surging 120 bps from the beginning of the year to 5.4%, and the interest rates of other varieties also rose to varying degrees. With the changes in the liquidity situation, the rate fluctuations of the short-term varieties were greater than those of the longer-term varieties. The annual volatility range of the average *issuing rates of* the 1M, 3M and 6M NCDs were 192 bps, 156 bps, and 139 bps respectively.

In 2017, the issuing rate of NCDs basically fluctuated with the Shibor benchmark interest rate. Taking the 3M NCDs of joint-stock commercial banks as an example, except for a few time points such as the beginning of the year, the end of Q2, and the beginning of Q3, the spread between the issuing rate of NCDs and Shibor interest rate of the same tenor remained within 25 bps.

3.2.3 The issuers shifted towards shorter maturities

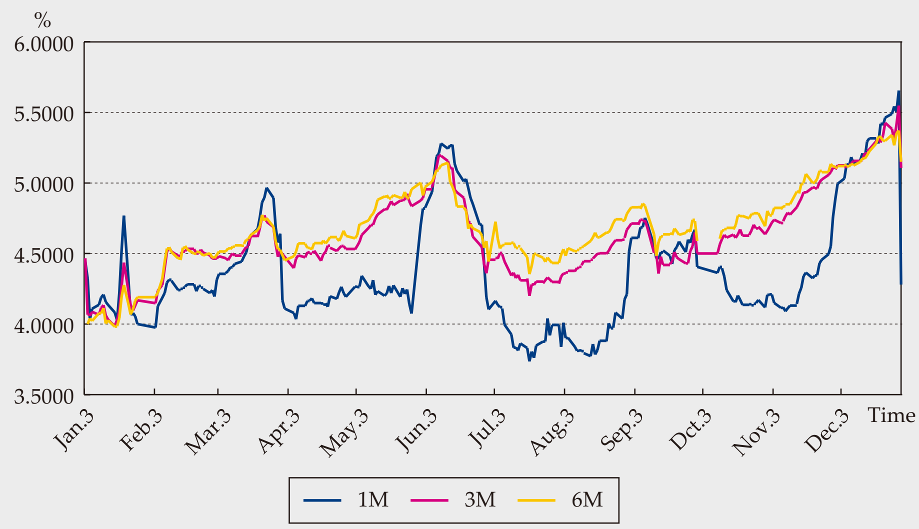
To guide the orderly development of NCD market, on August 31, the People's Bank of China issued its No.12 Notice in 2017, modifying the relevant regulations regarding maturities in the *Interim Measures on NCD Administration (PBC Announcement* 〔2013〕*No.*

Figure 2.13 Structure of NCD issuers in 2017



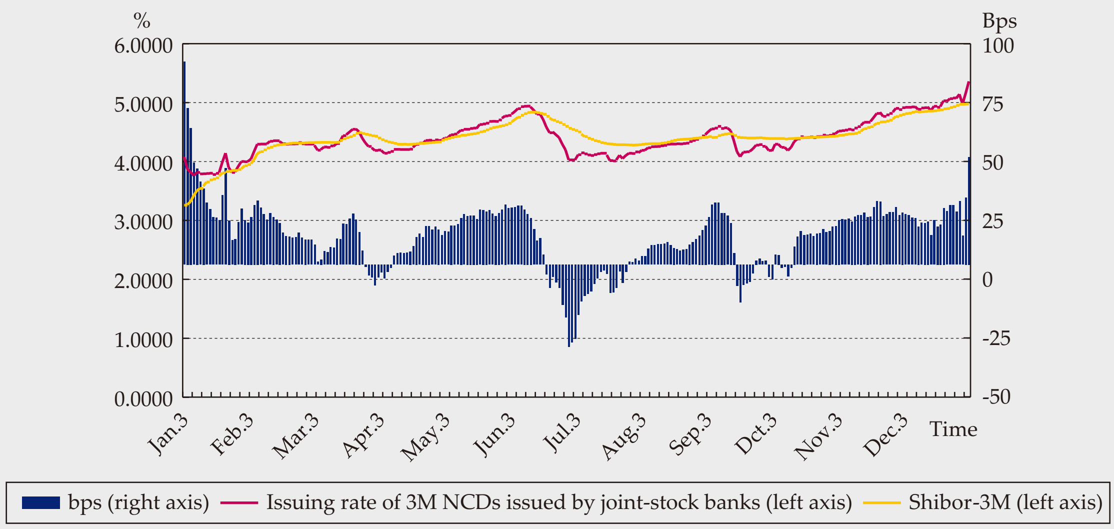
Source: China Foreign Exchange Trade System.

Figure 2.14 Issuing rate of NCDs of various maturities in 2017



Source: Wind Information.

Figure 2.15 Issuing rate and spread trend of 3M NCDs in 2017



Source: Wind Information.

20), to the effect that, from September 1, 2017 on, financial institutions shall not issue NCDs with a maturity of more than 1 year (exclusive), and the existing NCDs with a maturity of more than 1 year (exclusive) may survive to reach maturity.

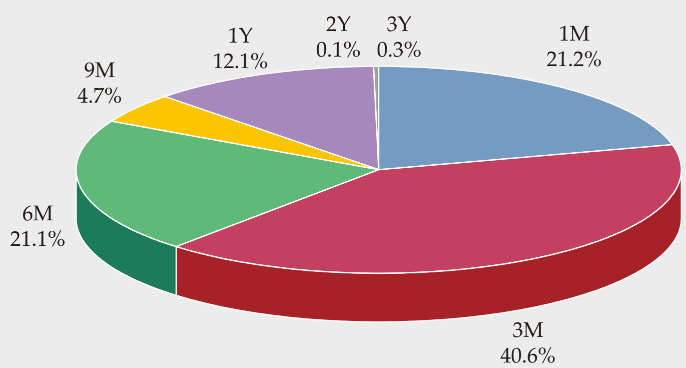
With the uptick of money market interest rates and bond yields, and the policy orientation of guiding NCDs' return to the essential attributes as a money market instrument, the issuers *tilted towards* shorter maturities in the issuance of NCDs in 2017. NCDs with 1M, 3M, and 6M maturities dominated the new issuance throughout the year, accounting for 21.1%, 40.6%, and 21.1% respectively of the total issuance amount, up 4 percentage points, 12.9 percentage points and down 4.1 percentage points respectively over the previous year. The percentage of issuance amount of 9M, 1Y, and 1Y above varieties was 4.7%, 12.1%, and 0.4% respectively, down 1.7 percentage points, 10.8 percentage points, and 0.2 percentage points respectively from the previous year.

3.2.4 More diversified subscribers and large increase of holdings by generalized funds

From the perspective of subscriber structure, commercial banks subscribed the largest amount, accounting for nearly half of the market total, down 1.7 percentage points from the previous year, followed by generalized funds with a share of 35.3%, down 2.9 percentage points from the previous year. The subscription amount of non-bank financial institutions surged 235% from previous year, accounting for 9.5% of the market total, up 5.1 percentage points from the previous year. The other institutions had a relatively small subscription amount, with little change in their market share.

At the end of 2017, the generalized funds significantly increased their holdings of NCDs, surpassing commercial banks as the largest holder of NCDs, accounting for 47% of the total

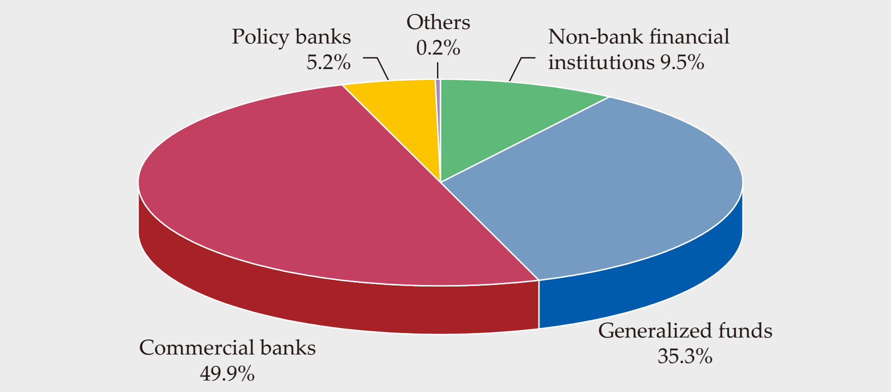
Figure 2.16 Structure of issuance term of NCDs in 2017



Source: China Foreign Exchange Trade System.

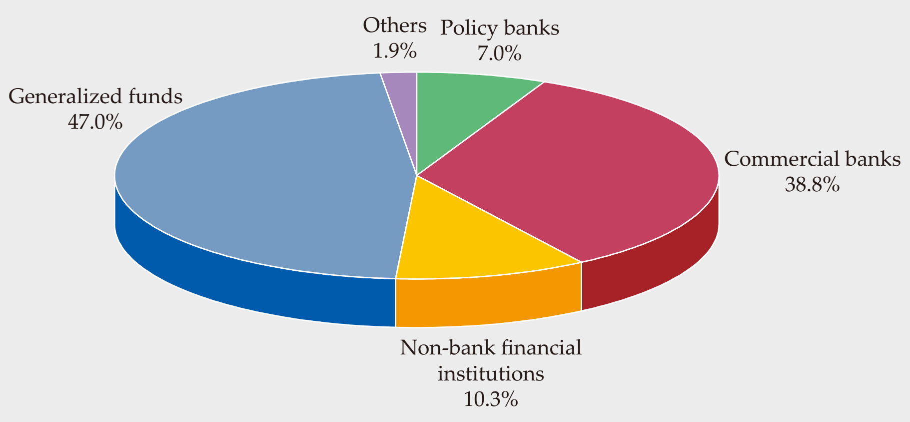
balance, up 11.9 percentage points from the end of the previous year. Non-bank financial institutions also increased their holdings, accounting for 10.3%, up 3.4 percentage points from the end of the previous year. Influenced by the policy of including into the interbank liability ratio index assessment of MPA, the NCDs with a maturity of up to 1Y issued by banks whose assets exceeded RMB 500 billion, commercial banks and policy banks reduced their holdings of NCDs, and the share of their holding in total balance at the end of the year posting 33.8% and 7% respectively, down 13.9 percentage points and 3.2 percentage points respectively from the end of the previous year.

Figure 2.17 Subscriber structure for NCDs in 2017



Source: China Foreign Exchange Trade System.

Figure 2.18 Structure of NCD holders at the end of 2017



Source: Shanghai Clearing House.

3.2.5 An increasingly liquid secondary market, ranking first among major bond types

The NCD secondary market showed similar features as the primary market, with a large volume of transactions concluded at the end of each quarter. In 2017, the trading volume of NCDs increased quarter by quarter, and the market became more and more liquidity. The average quarterly turnover in the year was RMB 28.2 trillion, and the average quarterly turnover rate reached 395%, exceeding the traditional liquid varieties such as the policy bank bonds and commercial papers, ranking first among the mainstream vouchers.

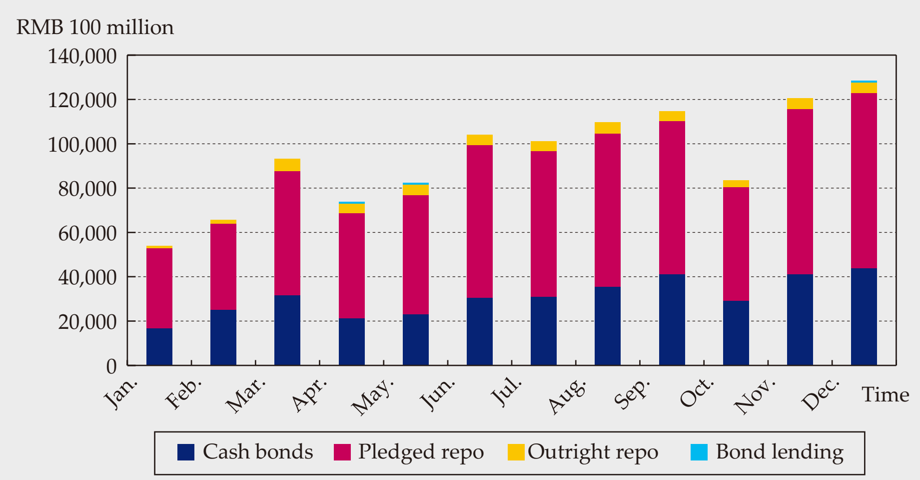
3.3 Outlook of the NCD market

In 2018, the NCD market is expected to achieve orderly and sound development on the basis of improved regulation. Under the high base effect and stable and neutral monetary policy, growth rate of the issuance of NCDs will slow down; the correlation between the issuing rate of NCDs and the mid- to long-term Shibor will further increase, contributing to the pricing capacity of financial institutions; the maturity of newly issued NCDs will be shorter to promote the NCD's returning of the essential functions in adjusting the balance of funds within the financial systems; with the increase in the size of inventories, optimization of trading mechanisms, and continued opening of the interbank market, the NCD secondary market is expected to be more liquid and its participants further diversified.

4. Bill market

In 2017, the size of commercial bill market continued to shrink, and interest rates. The

Figure 2.19 Monthly sales of NCDs in 2017



Source: China Foreign Exchange Trade System.

market infrastructure and trading arrangement made further improvement; commercial bill electronization gathered pace. The market played an important role in supporting the real economy and financing of small- and medium-sized enterprises.

4.1 Performance of the bill market

4.1.1 Issuance and acceptance businesses

The decline in the bill acceptance business moderated. In 2017, commercial bills issued by enterprises totaled RMB 17 trillion, a decrease of 6.1% year on year, a moderation of 13.2 percentage points from the decrease in 2016. At end-2017, outstanding commercial bills stood at RMB 8.2 trillion, down 9.5% year on year, 3.8 percentage points lower than the decrease in 2016. The outstanding volume of bill acceptances declined for three consecutive quarters before stabilizing during the fourth quarter. The outstanding volume of bill acceptances at end-2017 increased RMB 43.4 billion from end-September but fell by RMB 854.4 billion from the beginning of 2017[1].

E-bill acceptances grew rapidly, mainly supported by bankers' acceptance rally. In 2017, e-bill acceptances amounted to RMB 13.02 trillion, up by 51.75%, of which RMB 11.12 trillion were bankers' acceptances and RMB 1.9 trillion were enterprises' acceptances. Paper bill acceptances declined by a large margin. In 2017, paper bill acceptances stood at RMB 1.69 trillion, representing a year on year decrease of 69.23%.

4.1.2 Discount and transaction businesses

The outstanding volume of bill financing declined before stabilizing. In 2017, financial institutions discounted a total of RMB 40.3 trillion of commercial bills, a decline of 52.4 percent year on year; at end-2017, the outstanding balance of bill discounts stood at RMB 3.9 trillion, down 28.9 percent year on year. The balance of outstanding bill financing continued to decline during the first three quarters and then increased slightly in the fourth quarter. At end-2017, the balance increased by RMB 141 billion from end-September, a decrease of RMB 1.6 trillion from the beginning of 2017. The share of outstanding bill financing in total outstanding loans was 3.2 percent, a decrease of 1.9 percentage points year on year[2].

Most of the discounts and transactions were based on e-bills[3]. For discount businesses, the outstanding balance of e-bill discounts accounted for 96.9% of the total and cumulative e-bill discounts accounted for 97.1% of the total. For interbank discounts and pledged repos, paper bill transactions and e-bill transactions had structural differences. interbank e-bill discounts registered RMB 44.48 trillion and e-bill pledged repos amounted to RMB 6.92

1 Aggregate data of acceptance and discount businesses is from *China Monetary Policy Report Quarter Four, 2017*.

2 According to the statistics caliber of PBC, bill financing includes discounts, interbank discounts and pledged repos.

3 All the percentage data is from the Commercial Paper Exchange System and ECDS system.

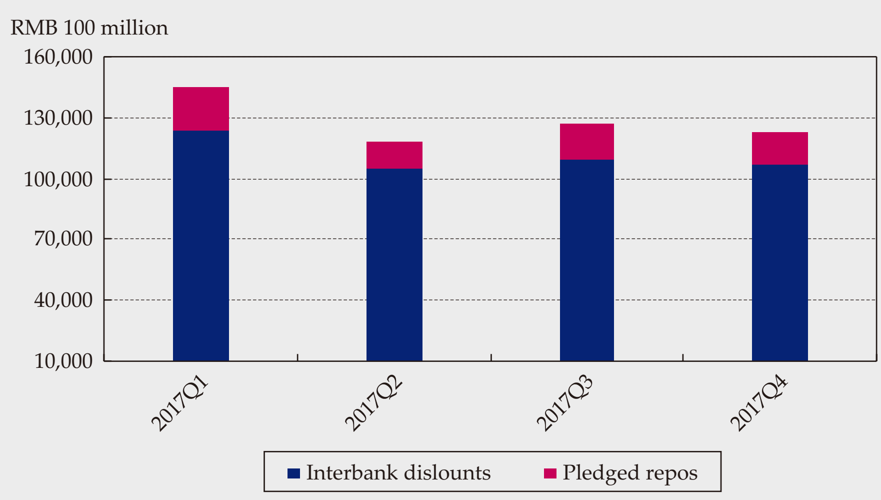
trillion, accounting for 86.54% and 13.46% respectively, whereas interbank paper bill discounts registered RMB 113.489 billion and paper bill pledged repos amounted to RMB 665.869 billion, accounting for 14.56% and 85.44% respectively. Paper bill transactions became more active due to the online transaction functions enabled by the Commercial Paper Exchange System, which further strengthened the role of commercial bills in short-term liquidity adjustment. As for term structures, overnight repos accounted for 76.54% of all paper bill pledged repos.

4.1.3 Commercial Bill interest rates

In 2017, bill interest rates were much higher than those of last year. The weighted average interest rate of e-bill discounts, interbank discounts and pledged repos was 4.89%, 4.28% and 3.85% respectively, up by 157 bps, 128 bps and 88 bps respectively year on year, consistent with the rising trend of interest rates in the monetary market.

The interest spread among discounts, interbank discounts and repos widened. In 2017, the weighed average interest rate of discounts was 63 bps higher than that of interbank discounts, a widening of 31 bps year on year, mainly due to the tax reform to replace the business tax with a value-added tax. After the reform, banks were faced with higher tax costs for discount business and had to widen the spread between discounts and interbank discounts in order to offset the costs. The weighed average interest rate of interbank discounts was 41 bps higher than that of pledged repos, a widening of 38 bps year on year. The main reason was that, with neutral and moderate liquidity and strict regulation, interbank discounts have imposd higher credit resource and capital costs on banks, which widened the interest spread between interbank discounts and repos.

Figure 2.20 Quarterly e-bill transaction value in 2017



The interest spread between bankers' acceptances and enterprises' acceptances narrowed. The weighted average discount and interbank discount interest rates for e-enterprises' acceptances were 5.67% and 4.57%, 87 bps and 31 bps higher than those of e-bankers' acceptances, a narrowing of 71 bps and 47 bps respectively year on year, which showed that enterprises' acceptances were more accepted by the market.

4.2 Main features of the bill market

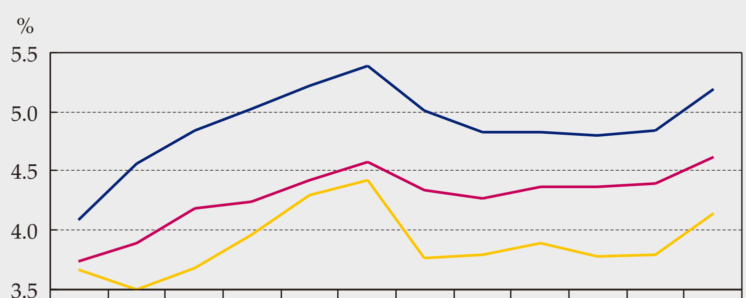
4.2.1 Market scale continued to decline

Due to strong regulations and the acceleration of financial deleveraging, the volume of commercial bills business declined for two consecutive years. First, as a result of financial deleveraging polices, commercial bill transactions with maturity mismatches that magnify the leverage have decreased. Second, with the enhancement of market transparency, irregular commercial bill transactions to move assets off balance sheet has decreased markedly. Third, regulators have intensified inspections and penalties. In 2017, the CBRC imposed over 400 administrative penalties on irregular commercial bill transactions.

4.2.2 Commercial bill market remained an important financing channel for SMEs

As an important trade settlement and financing tool for small-and medium-sized enterprises, commercial bills were widely used by the manufacturing, wholesale and retail industries. According to the paper bill statistics collected by the Commercial Paper Exchange System, in terms of industries, 73.24% and 82.05% of commercial papers were issued by and applied for bank discounts respectively by enterprises in the manufacturing, wholesale and retail industries. In terms of enterprise sizes, 64.94% and 83.63% of commercial bills were issued and applied for bank discounts respectively by small-and medium-sized enterprises.

Figure 2.21 Weighted average interest rates for e-bill transactions in 2017



	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Discount	4.09	4.56	4.84	5.03	5.22	5.38	5.01	4.82	4.83	4.80	4.84	5.20
Interbank discount	3.74	3.89	4.18	4.25	4.43	4.58	4.34	4.27	4.37	4.37	4.39	4.62
Pledged repos	3.67	3.50	3.68	3.97	4.29	4.42	3.77	3.79	3.89	3.78	3.80	4.14

4.2.3 The use of e-bills expanded rapidly

The share of e-bills in the commercial bill market increased significantly and the electronization of paper bills gathered pace, mainly due to two reasons. First, according to the requirements of *Notice on Regulating and Promoting the Development of Electronic Commercial Bills*, any commercial bill with a face value of over RMB 3 million must be issued by the e-bill system from January 1, 2017 onward. Second, after the frequent occurrence of fraud cases in 2016, many enterprises and financial institutions chose use e-bills or electronize paper bills to reduce operational risks.

4.2.4 Number of commercial bill risk cases dropped significantly

With the gradual improvement of institutional arrangements in commercial bill market and stronger regulation, the regulatory authorities strengthened efforts in the inspection of the market and imposed stricter penalties on the violations of laws and regulations. The commercial bill operations and internal control management of financial institutions became more standardized, irregularity in operations were contained. As a result, the number of risk cases dropped significantly compared with previous years.

4.3 Market institutional arrangements and infrastructure development

4.3.1 Improvement in market infrastructure

First, functions of the Commercial Paper Exchange System have been improved to meet market players' basic operational needs including registration, custody, transaction and settlement of commercial bills. More institutions have access to the system. Second, the integration process of the paper bill system and the e-bill system has accelerated, with completion of the first-stage integration of data and the second-stage integration of transaction rules. The transaction rules for e-bill interbank discounts and repos have adopted those of paper bills. Third, the system for rediscount transactions was launched.

The exchange system has laid a solid foundation for the electronization of paper bills. Its smooth operation has provided an efficient, convenient and secure electronic platform for market players.

4.3.2 Strengthened market regulation

Regulatory authorities have strengthened regulation of the commercial bill market. At the beginning of 2017, China Banking Regulatory Commission emphasized the goal of serving the real economy by rectifying market irregulatiies and enhancing financial risk control and prevention. The Commission carried out special rectification programs against "three kinds of violations", "three kinds of regulatory arbitrages" and "four kinds of improper actions" in the banking industry. China Securities Regulatory Commission banned channel business, which had a negative impact on channel-based asset management plans. China Insurance Regulatory Commission strengthened regulations on the use of insurance funds and continued to guide efforts in reducing leveraging and in preventing multiple reinvestment for arbitrage purpose and channel business .

Overall, the introduction of a series of stricter regulatory policies contained the high-risk activities in the commercial bill market, such as inflating the size of deposits and loans, bill trading with no fund flowing into the real economy, carrying out irregular cooperations with unregulated intermediaries, manipulating the amount of loans advanced, reducing the amount of capital taken up against regulatory requirements, and lacking sound management of paper bills.

4.3.3 Enhanced transaction management mechanisms

In 2017, the People's Bank of China issued the *Notice on Enhancing the Management of Electronic Commercial Bill Transactions (No. 165〔2017〕)*, unifying the transaction rules for paper bills and e-bills. Shanghai Commercial Paper Exchange Corporation issued several related rules, including the *Commercial Bill Transaction Rules (No.16〔2017〕)*, *Operational Rules for Paper Bills (No. 17〔2017〕)*, *Rules for Commercial Bill Registration, Custody, Clearing and Settlement (No.17〔2017〕)*, all of which aimed at clarifying transaction rules and improving market efficiency.

In July 2017, the Ministry of Finance and the State Administration of Taxation issued *Notice on the Pilot Reform to Replace Business Tax with Value-added Tax on Construction Services (No. 58〔2017〕)*, providing that in the discount and rediscount business, the interest income obtained during the actual holding period of a bill will be included in the taxable loan service sales amount.

4.4 Outlook of bill market development

4.4.1 Further improvement of market efficiency

The electronization of commercial bills and the upgrading of trading models will play a critical role in linking the money market with the real economy and in increasing market efficiency. The electronization progress will help financial institutions cut bill management costs and reduce information asymmetry among market participants so as to fully meet their investment and financing needs. The hierarchical management model adopted by commercial bank at the headquarter will enable head offices to pool resources, integrate asset-liability management and improve liquidity management, and also enable branch offices to focus on developing new products that can meet the financing needs of SMEs, contributing to the economic restructuring and upgrading.

4.4.2 More regulation on market innovations

With *commercial bill* transactions shifting from offline to online, market information and business activities of various entities will be transparent and regulated. Spaces for improper innovations and regulatory arbitrages will be limited. The further improvement of market infrastructure will provide the regulatory authorities with more efficient and targeted monitoring tools, thus market innovations will come under increased regulation and meet the financing needs of SMEs and the real economy.

4.4.3 Bill market business model will undergo transitions

In terms of operational structure, a new centralized model will gradually replace the traditional model of business line management and decentralized operations. Under the new model, the commercial bank head office is in charge of interbank transactions including interbank discounts and pledged repos, whereas branches are responsible for marketing including acceptances and discounts so as to fully leverage their customer resources. In terms of profitability, with improved convenience of trading and better liquidity of bill assets, in addition to traditional strategies such as holding to maturity, trading prior to maturity and value-added services, investment research capabilities will become the core competitiveness for interbank discounts.

Par III Bond Market

In 2017, China's bond market continued to maintain a good development momentum. Bond issuance grew steadily, despite a decline in growth and in corporate credit bond issuance. Trades were less active as the volume fell. Bond yield was higher in general while the aggregate price index went down. Investors became more diversified. The market saw fewer defaults. Innovation in product and system made progress and regulation was enhanced. There were more investments from non-resident investors, and the market played a larger role in serving the real economy and the supply-side structural reform.

1. Bond market performance

1.1 Primary market

1.1.1 Bond issuance grew at a slower pace

In 2017, a total of RMB 40.82 trillion of bonds were issued, up RMB 4.68 trillion or 12.9% year on year, of which RMB 36.77 trillion was issued on the interbank bond market (up 14.2% year on year and accounting for 90.1% of the total) and RMB 4.05 trillion was issued at the exchange market (9.9% of the total).

The three types of bonds with the largest volume of issuance were NCDs, non-local government bonds and financial bonds, with issuances at RMB 20.19 trillion (up 55.4% year on year), RMB 4.36 trillion (down 27.9 year on year) and RMB 3.98 trillion (down 20.8 year on year), respectively.

1.1.2 Bond custody volume maintained steady growth

At end-2017, the bond custody volume reached RMB 74.96 trillion[1] (up RMB 11.29 trillion or 17.7% year on year), of which RMB 65.43 trillion was in the interbank bond market (up 16.2% year on year, accounting for 87.3% of total bond custody volume) and RMB 9.53 trillion was at the exchange market (up 21.6% year on year, accounting for 12.7% of the total).

1 Including exchange-traded ABS.

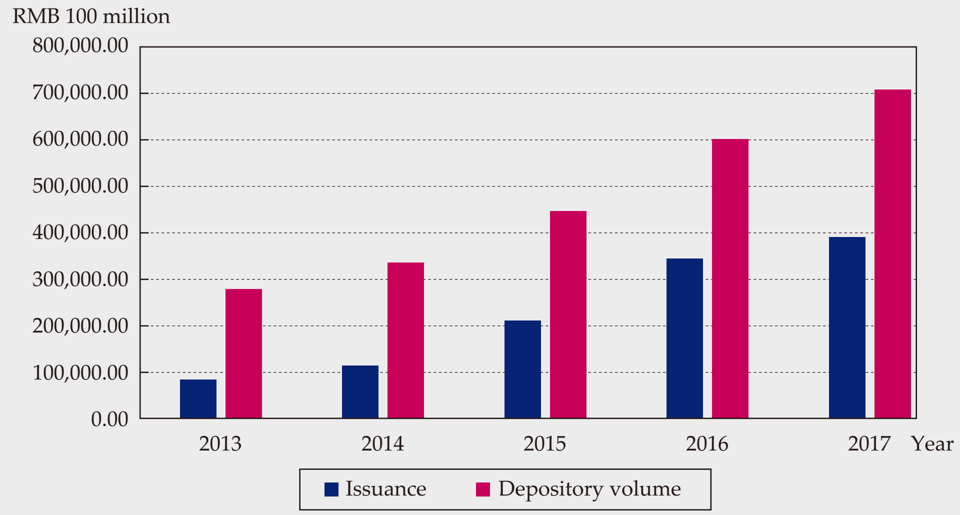
Table 3.1 Major bonds, issuances in 2017

Types of bond	Issuance (in RMB 100 million)	YoY growth (%)	Types of bond	Issuance (in RMB 100 million)	YoY growth (%)
Central government bonds	38,661.8	31.2	Debt financing instruments of non-financial enterprises	39,813.5	-20.8
Local government bonds	43,580.9	-27.9	Enterprise bonds	3,731.0	-37.0
Government-sponsored bonds	2,860.0	27.1	Corporate bonds	11,460.2	-55.5
Policy bank bonds	32,814.8	-2.1	ABS	15,398.4	78.1
Financial bonds	17,353.0	24.9	International institutional bonds	666.0	-49.9
NCDs	201,872.4	55.4	Total	408,212.0	12.9

Note: Financial bonds include interbank and exchange-traded financial bonds. The former refers to financial bonds issued by financial institutions established in China, including general financial bonds, subordinated debts, hybrid capital bonds and tier-2 capital instruments issued by commercial banks, supplementary capital bonds issued by insurance companies, and bonds issued by non-bank financial institutions such as auto-finance companies.

Source: CSRC, CCDC, SHCH.

Figure 3.1 Interbank market issuance and custody volumes



Source: CCDC, SHCH.

1.2 Secondary market

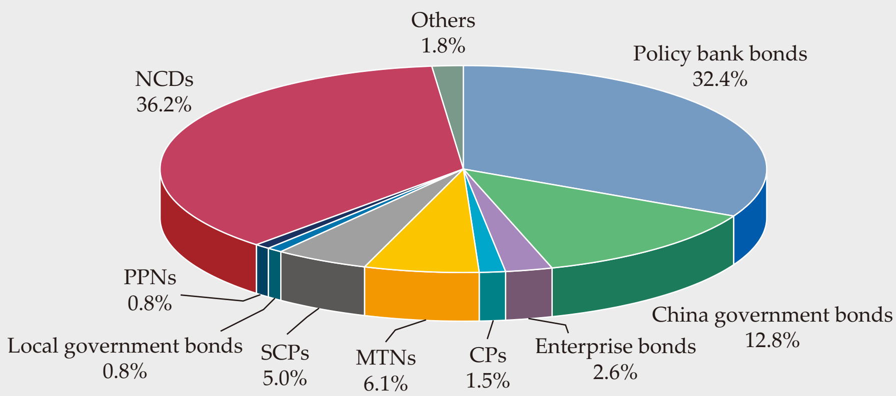
1.2.1 Cash bond trading volume fell year on year

In 2017, cash bond transactions totaled RMB 108.39 trillion (down 18.0% year on year), of which RMB 102.84 trillion was cash bond transactions in the interbank bond market (down 19.1% year on year, accounting for 94.9% of the total) and RMB 5.56 trillion was traded at the exchanges (up 8.4% year on year, accounting for 5.1% of the total).

In terms of bond types in the cash bond transaction on the interbank bond market, the most traded three categories were NCDs, policy bank bonds and treasury bonds, which accounted for 36.2%, 32.4% and 12.8% (and together, 81.4%) of the transaction volume, respectively.

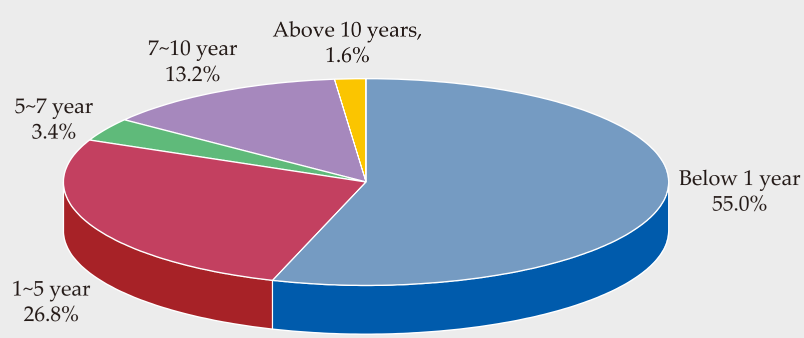
In terms of maturities of cash bond transactions on the interbank bond market, bonds with a maturity of less than 1 year, 1~5 years, 5~7 years, 7~10 years and more than 10 years recorded trading volume of RMB 58.36 trillion, RMB 28.43 trillion, RMB 3.61 trillion, RMB 14.01 trillion and RMB 1.70 trillion respectively, accounting for 55.0%, 26.8%, 3.4%, 13.2% and 1.6% of the total.

Figure 3.2 Trading structure of CIBM cash bond transactions in 2017



Source: CCDC, SHCH.

Figure 3.3 Bond maturities in cash bond transactions on the interbank market in 2017



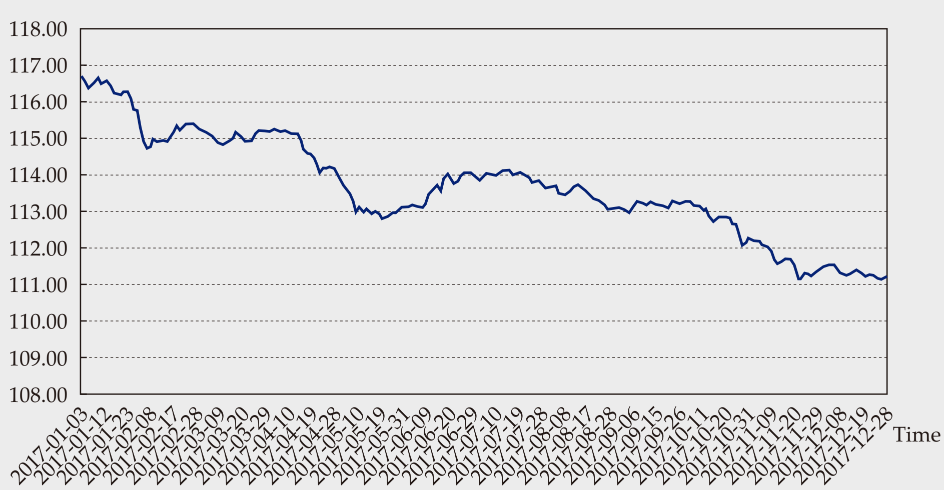
Source: CCDC, SHCH.

1.2.2 Yields climbed up while aggregate price index went down

In 2017, the interbank bond yields showed an overall upward trend. The average yield of treasury bonds including 1-year, 3-year, 5-year, 7-year and 10-year rose substantially by 92 bps[1]. Among them, the yield of 10-year treasury bonds moved up in fluctuations, reaching a peak of 3.99% in late November, and then gradually declined to 3.88% at end-2017, up 78 bps compared with the beginning of the year. Credit spreads have expanded moderately. The spread between AAA enterprise bonds and 1-year, 3-year, 5-year, 7-year and 10-year treasury bonds gradually declined after reaching a high in March, and started to rise rapidly in November and reached a new high. The average spread of key-term bonds expanded by 43 bps to 152 bps[2] at end-2017 compared with the beginning of the year.

The aggregate price index fell. The ChinaBond aggregate clean price (total value) index was 116.69 points at the beginning of the year. It fell to 112.81 points in May before moving up modestly, and then fell back to 111.20 points, down 4.7% from the beginning of the year. The Interbank Credit Bond Composite Index (Total Return) of SHCH was 109.63 at the beginning of the year. It continued an uptick trend during the year, except short periods of slight declines in late April to early May and in November, reaching 113.03 at the end of the year.

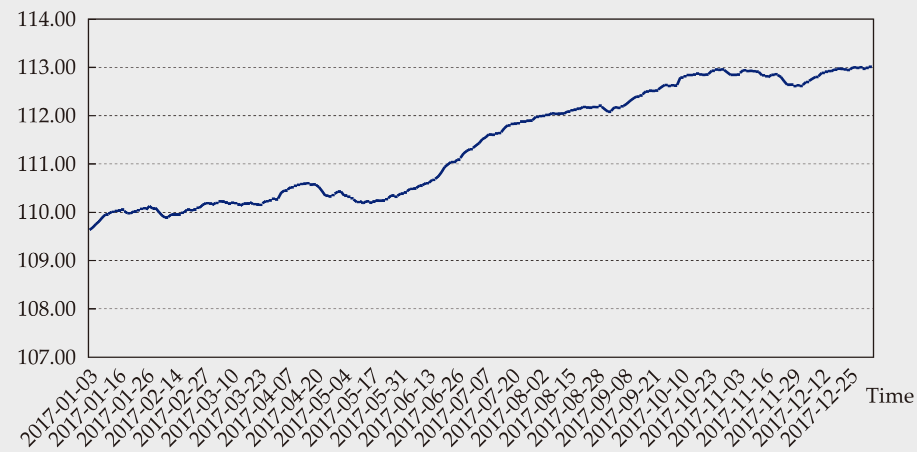
Figure 3.4 2017 ChinaBond Index (total return index)



Source: CCDC.

1 The average is simple arithmetic average.
2 The avergae is simple arithmetic average.

Figure 3.5 Interbank Credit Bond Composite Index of Shanghai Clearing House



Source: SHCH.

1.2.3 Investor composition changed slightly

In 2017, investor composition in the interbank bond market changed slightly. At end-2017, bond holding by deposit-taking financial institutions reached RMB 38.01 trillion, accounting for 58.1% of total depository volume in the market, down 2.3% year on year. Among the holding of deposit-taking financial institutions, the share of state-controlled commercial banks and joint-stock commercial banks dropped 0.8 percentage point and 1.1 percentage points year on year respectively, while the share of city commercial banks, rural commercial banks and rural cooperative banks rose 2.1 percentage points. Non-legal personal institutional investors held a total of RMB 18.54 trillion of bonds, accounting for 28.3% of the total depository volume in the market, up 2.6 percentage points year on year. Among them, the share of bond holding by banks' wealth management products and insurance products increased 6.1 percentage points and 5.8 percentage points year on year respectively. The share of bond holding by securities companies' asset management plans dropped 4.3 percentage points from the previous year.

2. Features of the bond market performance

2.1 Issuance volume of different bond types diverged

In 2017, the bond market's total issuance continued to grow, but the issuance amount of different bond types diverged. Among them, tier-2 capital instruments, asset-backed securities and book-entry government bonds grew quickly, up 87.4%, 78.1% and 33.7% year on year respectively, while corporate bonds, enterprise bonds and local government bonds dropped substantially, down 55.5%, 37.0% and 27.9% year on year respectively.

2.2 Bonds were issued at shorter maturities

In 2017, the trend that new bonds were issued at shorter maturities continued across the bond market. Bonds with maturity less than 3 years accounted for 74% of all newly issued bonds, up 8.4 percentage points year on year; bonds with a maturity between 3 to 10 year accounted for 23.7%, down 7.9 percentage points year on year; and bonds with a maturity of over 10 years accounted for 2.3%, down 0.5 percentage points year on year.

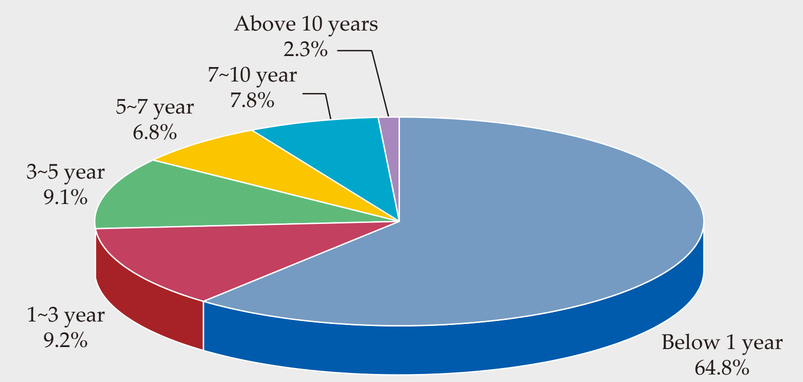
2.3 The market experienced greater volatility at year end with notably higher yields

The bond market experienced large volatilities at end-2017 and the central government bond yield curve moved upward by a large margin. From January to September, bond market yields trended up steadily. But in early October, yields fluctuated violently and the yield curve moved up sharply. The yields of 1-year, 3-year and 10-year central government bonds declined moderately after reaching a high in Q2; moved up again in Q4 and reached its peak at year-end. The yield of 30-year central government bond sustained an overall upward trend, except for a notable reversal in the middle of April. At end-2017, yield of 1-year, 3-year, 10-year and 30-year central government bond was 118 bps, 110 bps, 83 bps and 80 bps higher respectively than at the beginning of the year.

2.4 Trading was less active with a substantial drop in short-term bond turnover

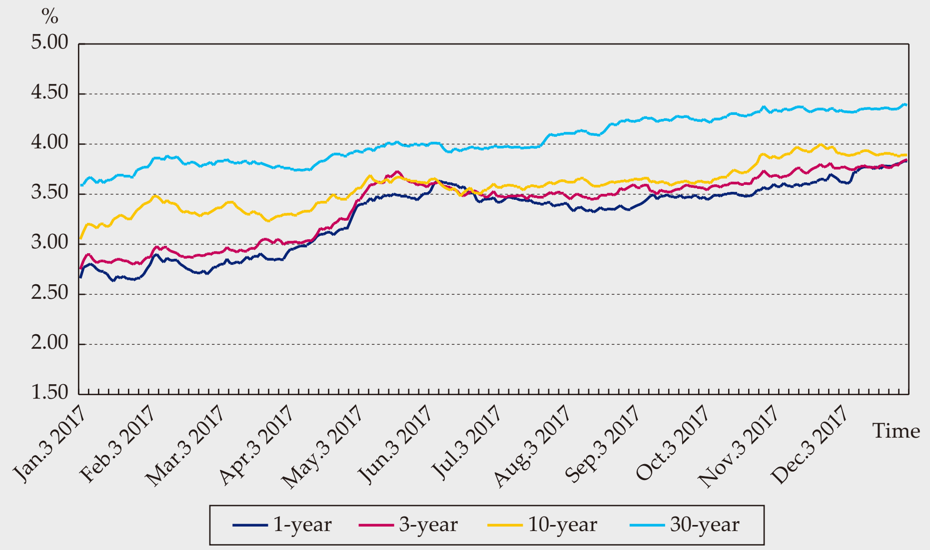
In 2017, the cumulative turnover in cash bond trading was 156.3% in the interbank bond market, down 63 percentage points year on year. With the exception of interbank CDs, major types of bonds have all become less liquid to varying degrees. Among them, policy bank bond and book-entry government bond's

Figure 3.6 Maturities of newly issued bonds at interbank bond market



Note: Maturity includes upper limit but excludes lower limit.
Source: CCDC, SHCH.

Figure 3.7 China Government bond yield curves in interbank market



Source: CFETS.

annual turnover was 249.0% and 107.2% respectively, down 190 and 7 percentage points year on year; short-term and super short-term commercial papers were fairly liquid, but still less so compared with the previous year, with annual turnover at 370.9% and 440.3% respectively, down 317 and 212 percentage points year on year.

2.5 Investor base was further diversified with a larger contingent of OTC market investors

In 2017, investors in the interbank bond market grew further and became more diversified. At end-2017, there were a total of 18,989 investors in the interbank bond market, up 4,862 year on year. Among them, 2,665 were domestic legal-person entities, up 336 or 14.4% year on year; 15,458 were financial products without a legal-person status, up 4,067 or 35.7% year on year; and 866 were overseas investors, up 459 or 112.8%.

In 2017, the number of investors in the interbank OTC market grew steadily, totaling 21.2449 million , of which 21.2374 million were individual investors (up 5.2% year on year) and 7,487 were institutional investors (up 79.63%).

2.6 There were fewer defaults in the market

In 2017, credit bond defaults gradually decreased in the bond market, with overall credit risk under control. A total of 40 bonds offered by 19 issuers defaulted, involving RMB 31.272 billion. The 19 issuers included nine debt financing

Table 3.2 Turnovers in CIBM in 2017 and 2016

Unit: %, bps

Types of bonds	2017	2016	Difference from prior year
Book-entry China government bond	107.2	114.5	-7.29
Local government bonds	5.7	18.5	-12.72
Policy bank bonds	249.0	439.4	-190.38
Government-sponsored bonds	19.4	34.4	-15.01
Commercial bank bonds	23.5	43.3	-19.88
Capital instruments	22.0	25.9	-3.94
Non-bank financial bonds	35.9	86.9	-51.02
Enterprise bonds	81.2	201.8	-120.63
CPs	370.9	688.1	-317.22
SCPs	440.3	653.1	-212.78
ABS	16.0	24.9	-8.98
MTNs	130.8	247.6	-116.83
Foreign bonds	31.5	146.3	-114.75
NCDs	447.6	312.9	134.64

Note: Turnover formula: cash bond trading amount/depository amount×100 (%)
Source: China Central Depository & Clearing Co., Shanghai Clearing House.

instruments of non-financial enterprises (default amount RMB 24.562 billion), six corporate bond issuers (default amount RMB 3.87 billion) and four enterprise bond issuers (default amount RMB 2.84 billion). The issuers were mainly from the construction and engineering, industrial machinery, coal and consumer fuels, and steel industries. Most were private enterprises, and their ratings were mostly at AA and AA+ levels at the time of issuance.

3. Product innovation in bond market

In 2017, product innovation in China's bond market made further progress. Continual active exploration has been made in asset securitization, debt-to-equity special bond, credit derivatives, as well as innovative debt instruments that support technological innovation, poverty alleviation, and environment protection.

3.1 Intensified asset securitization product innovation

In 2017, asset securitization product innovation developed rapidly. First, a pilot project of non-performing asset securitization proceeded orderly. By the end of 2017, 33 non-performing asset securitization products were issued, with an issuance amount of RMB 28.6 billion, disposing of 87 billion non-performing assets. Second, the PPP asset securitization project was officially launched. Registration of Two PPP Asset Backed Notes (ABN) was completed;

one of them was issued in an amount of RMB 200 million. The project helps standardize and activate the stock of PPP assets, and improve asset liquidity. Third, ABNs backed by green assets, poverty alleviation assets, and supply chain assets were launched to support green development, targeted poverty alleviation and inclusive finance and finance important areas. Fourth, the first real estate investment trusts (REITs) in the interbank market was launched, creating a new product type for the asset securitization market.

3.2 The introduction of the first debt-to-equity special bond

The first debt-to-equity special bond was approved by the National Development and Reform Commission in May 2017, and was issued in September 2017. Throughout 2017, there were two issuances of non-public debt-to-equity special bond, with a total amount of RMB 800 million. The successful issuance of debt-to-equity special bond is not only a preliminary attempt to introduce social capital and to implement market-oriented debt to equity conversion, but also plays an important role in serving real economy and reducing enterprise leverage level through corporate bond innovation.

3.3 The launch of the first Credit Linked Note (CLN) product in the interbank market

According to "Pilot Operation Rules of the Interbank Market Credit Risk Mitigation Instruments" (NAFMII Announcement〔2016〕No. 25), the first two CLN products were successfully launched in May 2017 and sold to targeted investors, with a total notional amount of RMB 50 million. The issuing entities were from the energy and urban construction industry; the products had a maturity of less than one year. The launch of CLN products enriched investors' credit risk management tools, and helped improve bond market credit risk dispersion and sharing mechanism.

3.4 The launch of bonds for innovation and entrepreneurship

To implement the innovation-driven development strategy, both the interbank bond market and exchange bond market launched innovative products to support entrepreneurial innovation. Measures were taken to support financial institutions to issue innovation and entrepreneurship financial bonds, the proceeds of which were used to fund the development of innovative enterprises, such as eligible new and high technology enterprises, technology based SMEs, science and technology business incubators, the mass entrepreneurship space operation organization, and national and provincial new and high technology industry development zone park management enterprises, diversifying the financing channels of innovative entrepreneurial enterprises and supporting the implementation of the innovation-driven development strategy. In December 2017, the Qilu Bank issued the country's first innovation and enterpreneurship financial bond with the scale of RMB 500 million to issue loans for innovative enterprises and start-ups. Debt Financing Instruments for Innovation and Entrepreneurship (DFIIE) were launched in the interbank bond market to support the development of the innovative enterprises in the entrepreneurial innovation parks through the pattern of investment linked debt. By the end of 2017, the innovative enterprises operating in entrepreneurial innovation areas in Shanghai, Jiangsu and other 4 provinces (municipalities) had registered a total amount of RMB 17 billion yuan in DFIIEs, the issuance amount being RMB 4.95 billion.

In July 2017, *Guiding Opinions of the China Securities Regulatory Commission on Conducting the Pilot Program of Corporate Bonds for Innovation and Entrepreneurship* (CSRC Notice〔2017〕No. 10) clearly stated that innovative enterprises, venture capital companies as well as venture investment funds were encouraged to issue Bonds for Innovation and Entrepreneurship in the exchange bond market. In 2017, a total number of 23 corporate bonds for innovation and entrepreneurship were issued in the exchange market, with an issuance amount of RMB 4.26 billion.

3.5 Innovation of poverty alleviation products

Notes and asset securitization products for poverty alleviation were launched in the interbank market, encouraging market institutions to support poverty alleviation through the use of financial instruments. By the end of 2017, 13 poverty alleviation notes of more than RMB 37.5 billion was registered, of which 12 were issued, raising RMB 13 billion, with the raised money used for targeted poverty alleviation projects, such as highway construction, poverty alleviation relocation and industry development in poor areas. In December 2017, the country's first asset-backed notes for poverty alleviation projects completed registration. In the above cases, structural finance products supported targeted poverty alleviation.

The exchange market made a breakthrough in the products of special corporate bonds and rental housing special corporate bonds for poverty alleviation, which satisfied case-specific needs of targeted poverty alleviation. In 2017, 9 issuances of special corporate bonds and asset backed securities for poverty alleviation were made in the exchange market, raising RMB 4 billion. In October 2017, Yichang Changle Investment Group co., Ltd. non-publicly issued a social responsibility corporate bond of RMB 300 million in the Shanghai Stock Exchange to fund local targeted poverty alleviation projects, which was an remarkable example of social responsibility bond issuance. In November 2017, the first asset-backed security (ABS) for sustainable development, i.e. "Agricultural Bank Suiying-Everbright Securities Asset Management-Ninghai Shanty Town Renovation Sustainable Development ABS" was listed on the Shanghai stock exchange, raising RMB 1.25 billion for local shanty town transformation and related environment renovation project construction.

3.6 Further development of green bonds

Green bond product innovation continued. The interbank bond market organized market members to further promote the launch of green

ABNs, green panda bonds, green sovereign bonds and other innovative products, on the basis of launching green medium-term notes, green PPNs, green perpetual notes, green credit loan funds and other varieties. Shanghai Stock Exchange and Shenzhen Stock Exchange have issued green bond products, covering ordinary corporate bonds, renewable corporate bonds, panda corporate bonds, asset backed securities, and other products, to meet investors' diversified investment and financing need. In September 2017, for the first time ever, a green financial bond was issued at the commercial bank counter for subscription by the public. In 2017, a total of 16 companies registered 18 green debt financing tools of RMB 36.151 billion, with an issuance amount of RMB 16.48 billion. A total of 24 green corporate bonds and 8 green asset-backed securities were issued or listed on the exchange market, raising a total amount of about RMB 32.7 billion. Issuers include large state-owned enterprises, local state-owned enterprises, private enterprises, listed and unlisted companies and other kinds of institutions, which effectively guided private capital to flow into the green fields supported by national policies.

4. Development of institutional arrangements of the bond market

4.1 Regulation of issuance was improved

4.1.1 Improving the government bond underwriting arrangements

In order to standardize the establishment of government bond underwriting groups to support smooth issuance of government bonds and stable development of the market, the Ministry of Finance released *Administrative Measures for the Establishment of Bond Underwriting Groups* (Ministry of Finance Announcement〔2017〕No.145) in August 2017. Based on the experiences in implementing the *Interim Administrative Measures for the Establishment of Bond Underwriting Groups* (Ministry of Finance Announcement〔2014〕No.186) released in 2014, it requires prior announcement of the notice on establishment of the underwriting group to give more time for potential participating institutions to prepare, streamlines the description of specific work procedures in the notice, and further optimizes and refines the *Evaluation Index System of the Third Party Experts in the Government Bond Underwriting Group*.

4.1.2 Introducing a number of administrative rules on local government debt issuance

In 2017, the Ministry of Finance released a series of policies to further regulate the behavior of local governments' borrowing. On the one hand, it released *Interim Administrative Measures for the Allocation of Newly Added Local Government Debt Quota* (Ministry of Finance Announcement〔2017〕No.35) and *Notice on Further Regulating Financing Behavior of Local Governments* (Ministry of Finance Announcement〔2017〕No.50), to define how the added quota is the distributed, to lay out detailed rules on the management of the debt financing behavior of the local governments, and to set a time limit to correct irregular financing behaviour. On the other hand, it released policy documents including *Provisional Administrative Measures for the Local Government's Land Reserve Special Bonds*, regulating special bonds in terms of quota management, budgeting, budget implementation and final settlement, supervision and management, assignment of responsibility, to encourage eligible local governments to explore special bond issuance in those fields of public welfare that generates some returns.

4.1.3 Further improving the registration and issuance mechanism of non-financial enterprise debt financing instruments

In 2017, NAFMII supplemented and improved the registration and issuance system of non-financial enterprise debt financing instruments , releasing a new edition of *Targeted Issuance and Registration Procedure of Non-Financial EnterpriseDebt Financing Instruments* (NAFMII Announcement〔2017〕No.24),amending information disclosure rules, and organizing market members to research the drafting of the text of standard distribution agreement and its online signing, further optimizing the registration and distribution mechanism, improving the convenience of the registration, enhancing the degree of adequacy and pertinence of information disclosure, and improving the efficiency of distribution.

4.1.4 Further improving the supporting system for green bond issuance

In 2017, the PBC, CSRC and other relevant regulatory authorities formulated and issued the *Interim Guidelines on Assessment and Certification Of Green Bonds* (PBC & CSRC〔2017〕No.20), *China Securities Regulatory Commission's Guidelines on Supporting Green Bond Development* (CSRC〔2017〕No.6) and *Guidelines on Green Debt Financing Instruments for Non-Financial Enterprises* (NAFMII Announcement〔2017〕No.10) and the supporting information disclosure forms, which regulated the assessment of green bonds, clearly defined green corporate bonds, green industries and projects, and the core mechanism of green debt financing instruments.

4.1.5 Further improving the pre-issuance mechanism of corporate bond

In 2017, the pre-assessment mechanism of corporate bond issuance was further improved. Firstly, the corporate debt pre-assessment guide was revised; Secondly, the mechanism of the assessment experts' meeting was further improved; Thirdly, the mechanism of confirming the asset securitization listing requirements was further improved, which improved the quality and efficiency of listing requirement confirmation, the regulation of information disclosure and disclosure standards.

4.2 Improving secondary bond market institutional arrangements

4.2.1 Expanding and optimizing the bond index and yield curve

In 2017, bond indices in China were diversified. Newly released ones included

ChinaBond Treasury and Policy Bank Bond Index, ChinaBond Enterprise Bond Aggregate Index, ChinaBond China Railway Bond Index, ChinaBond Commercial Banks Investment Index and a series of sub-indices with various maturities, providing varied pricing benchmarks and tracking targets for bond market. Especially, in December 2017, the release of Shanghai Key Yield (SKY) improved visualization and convenience of the government bond yield curve; enhanced the role of the government bond yield curve as the pricing benchmark, and supported the development of Shanghai as a global financial center.

From the yield curve perspective, the release of ChinaBond Floating-Rate USD Policy Bank Bond (Libor-USD-3M) Spread Curve met the valuation need for Libor-based onshore floating-rate USD bond. From the corporate bond perspective, the Shanghai Clearing House (SHCH) introduced Shanghai Innovation Company Bond Index and a series of NCD, CP and MTN indices. The NCD index, as the first to reflect price trend, yield curve and valuation of Negotiable Certificates of Deposit among commercial banks in China, has promoted the accuracy of valuation and the influence of bond market.

4.2.2 Officially launching the market-making support operation for government bond

In order to facilitate market-making activities, increase liquidity in the secondary government bond market, and optimize the government bond yield curve to reflect the supply-demand relationship, on the basis of *Notice on Releasing the Rules of Market-Making Support Operation for Government Bonds* (Ministry of Finance Announcement〔2016〕No.154), the Ministry of Finance released in 2017 *Notice on Implementing Market-making Support Operations for Government Bonds* (Ministry of Finance Announcement〔2017〕No.106) to support market makers to use instruments such as MOF buy and MOF sell to conduct market-making transactions for government bond. In 2017, the annual frequency of such operation was 7 times, including MOF sell of 2 times with the total volume of RMB 3.03 billion and MOF buy of 5 times with the total volume of RMB 3.5 billion. On the one hand, these operations increased trading activity of government bond; lowered the risk of market-making effectively, and enhanced the continuity of market-making pricing the government bond. On the other hand, they advanced institutional investors' influence on the primary and secondary bond markets, and improved the connection between two markets, and positively affected market pricing.

4.2.3 Further regulating bond transactions

In December 2017, the People's Bank of China, China Bank Regulatory Commission, China Securities Regulatory Commission and China Insurance Regulatory Commission jointly released *Notice on Regulating Bond Transactions among Bond Market Participants* (CBRC Announcement〔2017〕No.302) to enhance regulation of bond market participants' trading behaviors. This was an important measure of managing financial risks and preventing systemic risks in the bond market, and was designed to supervise various market participants to enhance internal control and risk management, improve bond trading-related internal control systems, regulate bond transactions, behaviors, control the leveraged operations within an acceptable level, and prevent market risks.

4.2.4 Improving the Investor Protection Mechanism

In June 2017, the Shanghai and Shenzhen Stock Exchanges released the *Amended Administrative Measures on Investor Suitability Management of Exchange-Traded Bonds* (Shanghai Securities Exchange〔2017〕No.36, Shenzhen Securities Exchange〔2017〕No.404),which adjusted standards of qualified investors and the investment range of individual investors. For the standards of qualified investors, new requirements on professional experience of the non-financial institutional qualified investors were included while the requirements of asset requirements were adjusted in line with CSEC's regulation.

In 2017, the NAFMII continued to promote the implementation of *the Paradigm of Investor Protection Provision.* About 40% of public offered debt financing instruments of non-financial enterprises included provisions for protecting investors, providing specific legal basis for investors to seek assistance before, during and after bond default, and raised effectiveness of investor protection in terms of credit risk warning, preventing and defusing.

4.3 Promoting information disclosure and credit system in interbank bond market

Firstly, improving the information disclosure system. *The Notice on the Regulation of Bond Trading by Participants in the Bond Market* provided stricter rules on the information disclosure mechanism of the bond market and improved the unified disclosure system of the bond market. *The Information Disclosure Rules for Debt Financing Tools of Non-financial Enterprises in the interbank Bond Market* were amended to strengthen information disclosure self-discipline requirements and improve the quality of information disclosure; the infrastructure in the interbank bond market was improved, with the creation of a centralized information disclosure system improving the efficiency of the market information disclosure. Secondly, the regulation of the business of credit rating agencies was improved. Organizing to draft *The Self-Discipline Convention of Credit Rating Agencies for Non-financial Enterprise Debt Financing Tools* and *the Interview Work Procedures of Credit Rating Business of Non-financial Enterprise Debt Financing Tools* to reduce grade competition among the rating agencies. Thirdly, NAFMII has released the standard documents, which are *the Main Definition Table* and *the Trust Document* of Credit Asset Securitization, and revised *the Guidelines for the Information Disclosure of the Personal Consumer Loan Backed Securities* and supporting table system, clarifying information disclosure standard and promoting the market discipline mechanism.

5. Opening-up of the bond market

5.1 Bond Connect has been launched as a new channel for overseas investors to participate in the Chinese bond market

5.1.1 Bond connect has been launched

In May 2017, the People's Bank of China (PBC) and Hong Kong Monetary Authority (HKMA) announced jointly the interconnection of bond markets in Hong Kong and China's Mainland (Bond Connect) ; in June, the *Interim Measures for the Administration of Mutual Bond Market Access between Mainland China and Hong Kong* (Decree No.1〔2017〕, Interim Measures), *Guide on Registration of Overseas Investors for Northbound Trading in Bond Connect* (Announcement No. 1〔2017〕of the Shanghai Head Office of the People's Bank of China), and a string of supporting documents in market investment, transaction and settlement were issued. On July 3, "Northbound Trading" of Bond connect started pilot running, in which overseas investors participated actively through subscriptions and trading at the secondary market. The structure of investors in the Chinese bond market was further diversified and the market became more active.

5.1.2 The business scope of overseas investors has been enlarged

With the release of *Notice of the State Administration of Foreign Exchange on Foreign Exchange Administration concerning Foreign Institutional Investors' Investment in the Interbank Bond Market (No. 12〔2016〕of the State Administration of Foreign Exchange)* and the *Notice of the State Administration of Foreign Exchange on Foreign Exchange Risk Management of Foreign Institutional Investors in the Interbank Bond Market (No. 5〔2017〕of the State Administration of Foreign Exchange)*, the interbank bond market will be further opened up, allowing foreign institutional investors of the interbank bond market to conduct RMB-to-foreign currency derivative business at qualified onshore financial institutions in China.

5.2 Remarkable progress was made in the two-way opening-up of the issuance market to support new pattern of overall opening-up of the country

5.2.1 The volume of Panda Bond issuance grew significantly

In 2017, the issuance market was opened wider to international participants, with a larger contingent of overseas issuers raising funds in a larger volume in the onshore bond market. Throughout the year, 34 Panda Bonds were issued, raising RMB 68.9 billion, including 26 Panda bonds issued in the interbank market that raised RMB 60.3 billion, accounting for 87.5% of Panda bond financing, and 8 bonds issued in the exchange market, which raised RMB 8.6 billion RMB and accounted for 12.5% of Panda bond financing. By the classification of issuers, 2 Panda bonds were issued by government issuers, raising RMB 2.0 billion and accounting for 2.9% of Panda bond financing; and 32 Panda bonds belonged to company credit bonds, raising RMB 66.9 billion RMB and accounting for 97.1%. Issuers were from Asia, Europe and North America.

5.2.2 MOF issued USD-denominated treasury bonds after a lapse of 13 years

In October, 2017, Ministry of Finance issued US$ 2.0 billion USD of sovereign debts in Hong Kong SAR, after a lapse of 13 years. This issuance included USD 1.0 billion of 5-year treasury bond and US$ 1.0 billion of 10-year treasury bond and was 10 times oversubscribed. The yield was 2.196% (coupon rate 2.125%) for 5-year USD$ bond and 2.687% (coupon rate 2.625%) for 10-year USD bond. The proceeds would be used as general government expenditure. The bond issuance was not rated by any international CRA. The issuance would help further the opening–up of Chinese financial industry, establish a pricing benchmark for foreign currency bonds by Chinese issuers, improving the yield curve of sovereign debts in foreign currencies, and boosting the confidence of international investors in China's economic development.

5.3 Substantive progress was made in the opening-up of the rating industry

To support the opening-up of the interbank bond market and facilitate the healthy development of the credit rating industry, PBC released in July 2017 the Public Notice No. 7〔2017〕, making provisions on the overseas rating agencies participation in rating businesses in the interbank bond market, allowing wholly foreign-owned institutions and overseas institutions to provide credit rating service in the interbank bond market on the premise of meeting relevant conditions, and defining relevant regulatory and self-discipline requirements. The opening-up of the rating industry would promote the opening-up and development of the bond market and the inclusive, rapid and steady development of the credit rating industry.

5.4 Expanding the foreign-funded underwriter team of debt financing instruments for non-financial enterprises

The National Association of Financial Market Institutional Investors (NAFMII) worked actively to build a foreign-funded underwriter team in line with the policy of opening wider to the outside world. First, the mechanism of classified and layered management of underwriting institutions was improved to give foreign-funded bank access to the lead underwriting business in an effort to facilitate the development of the Panda Bond market. In 2017, a special market evaluation mechanism for qualifications of principal underwriters was established and the relevant evaluation was conducted, through which one foreign-funded bank became Category B lead underwriter of debt financing instruments for non-financial enterprises. Second, cross-border financial cooperation was deepened, as 3 foreign-funded banks joined the underwriters of debt financing instruments for non-financial enterprises in 2017. At the end of 2017, the underwriting team of debt financing instruments for non-financial enterprises included 1 foreign-funded bank as Category B lead underwriter and 4 foreign-funded banks as underwriters, a big growth compared to 2016. The debt financing instrument underwriting team became increasingly international, and this would help implement the 19th CPC National Congress' guiding spirit of promoting a new pattern of overall opening-up and expanding the opening-up of the financial service industry, expand and deepen the opening-up; to help introduce overseas issuers and investors, encourage market innovation and institutional improvement, and improve the international level of RMB ; and to promote reform via development, facilitate benign and full market competition, and improve the bond market's ability and level of supporting real economy.

5.5 The bond market has actively supported the Belt and Road Initiative

To support the development of the Belt and Road Initiative, domestic and overseas entities were encouraged to issue bonds in China's onshore bond market in support of the Belt and Road construction. On one hand, debt financing instruments were introduced for domestic enterprises to finance for the Belt and Road construction. By end-2017, support had been provided to relevant market participants in Fujian, Xinjiang and Guangxi in issuing debt financing instruments of RMB 1,257.028 billion in the service of the construction of core regions, strategic pivots and open doors for the Belt and Road Initiative. In particular, support was given to port and airport enterprises including Xinjiang Airport Group and Xiamen Iport Group to issue debt financing instruments of RMB 442.570 billion for the Belt and Road Initiative infrastructure interconnection projects such as international airline hubs and international logistics centers. These have laid the foundation for building a new pattern of overall opening-up that connects land, air and marine transportation across east and west. On the other hand, overseas entities were encouraged to raise fund for the Belt and Road Initiative related projects and cooperation. The Hungarian government successfully issued 3-year Panda bond of RMB 1.0 billion to support the Belt and Road construction between Hungary and China; the Republic of Poland registered the first foreign government green Panda Bond, and would use the raised fund for the Belt and Road cooperation and other purposes consistent with the Green Bond Framework; support was also provided to China Merchants Port Holdings Company Limited to use proceeds of panda bond for the Belt and Road initiative. As of the end of 2017, overseas government institutional issuers along the Belt and Road and overseas non-financial enterprises helpful for infrastructure interconnection had registered RMB 81.0 billion of panda bonds and raised RMB 41.5 billion through Panda Bond issuance in the interbank bond market.

6. Outlook of bond market development

According to the spirit of the 19th National Congress of the CPC and the decisions of National Financial Work Conference, the bond market regulatory authorities will focus on three key tasks, namely, serving the real economy, preventing and defusing financial risks and deepening financial reforms, adopt measures to prevent risks, strengthen market institutional arrangements and products innovation, increase the opening up of the market to the outside world, and enable bond market to effectively allocate resources.

6.1 Continuously advance the development of the bond market by focusing on serving real economy

In 2018, the bond market will continuously focus on the needs of the real economy, provide support the supply-side structural reform, and lower financing costs for the real economy. In line with the national development strategies, financial services will be provided for major national projects such as Beijing-Tianjin-Hebei Integrated development, the Belt and Road Initiative and Western Development, increase support for innovation and entrepreneurship, science and technology, culture, strategic emerging industries and other important fields, and improve the bond market's ability to serve weaker sectors such as small and micro enterprises, agricultural sector, rural areas and farmers. We will continue to actively support various types of issuers to raise funds through multi-tier bond markets, increase support for corporate financing through product and mechanism innovation, and diversify bond products. We will also continue to promote the innovation and development of asset backed securities, further tap its role in revitalizing stocks, improve the quality and efficiency of economic growth and promote economic transformation and upgrading.

6.2 Continuously improve the system construction and further consolidate the risk prevention

In 2018, we will continue to advance deleveraging and risk prevention, and further strengthen bond market legal system, cross-market regulatory coordination, and financial risk prevention. Firstly, the new rules on asset management, liquidity, and bond transaction regulation will be implemented to further strengthen the market regulation and look-through management; Secondly, with the progress of the bond market information disclosure and the credit rating system development, market discipline mechanism will become stronger and market will be more transparent; Thirdly, we will improve the overall management of infrastructure, and optimize the trading, clearing and settlement arrangements for domestic and foreign investors; Fourthly, we will improve intermediary practice quality through strengthening the supervision of intermediary institutions. We aim to establish a classification management system for bond underwriting of securities companies, and build an incentive and constraint mechanism based on the classification evaluation of securities companies. In addition, we will strengthen market management coordination and cross-market regulatory coordination to curb risk transmission and contagion. With a series of institutional and regulatory enhancements, the regulation of the bond market and the risk prevention and control capabilities will be further enhanced.

6.3 Further deepen reform and opening up of the bond market

In 2018, we will continue to deepen reform and opening up of the bond market, give full play to market service functions and radiation functions, and enhance the market's endogenous advantages. Measures will be taken to further open up the market. On the premise of safeguarding financial security, we will ease the restrictions on market access for overseas financial institutions, and make financial market rules more compatible with international standards on the basis of national conditions. Moreover, we will clarify the related policies on bond issuing by overseas institutions in China, expand the volume of Panda bonds, and diversify overseas issuers. We will further optimize the registration, transaction, and settlement procedures for the overseas investors in China's onshore secondary market. We will also introduce a larger varieties of trading products and tools to meet the reasonable needs of overseas investors. With the adoption of the related policies, we expect more overseas investors and issuers will participate in the bond market and their scale of issuance and investment will grow.

Box 1 The launch of Bond Connect program started a new chapter in the interconnection between domestic and overseas bond markets

On June 21, 2017, the People's Bank of China (PBC) released the Interim Measures for the Administration of Mutual Bond Market Access between Mainland China and Hong Kong SAR, officially launching the Bond Connect program. On July 2, 2017, the PBC and the Hong Kong Monetary Authority (HKMA) issued a joint announcement, approving that the Northbound Trading under the Bond Connect program would be officially launched on July 3 in Hong Kong and Mainland China.

1. Significance of Bond Connect

Bond Connect is a new mutual market access scheme that allows investors from Mainland China and overseas to trade in each other's bond markets through connection between the related Mainland and Hong Kong financial infrastructure institutions. The program includes Northbound Trading and Southbound Trading. Northbound Trading started on July 3, 2017, allowing overseas investors from Hong Kong and other regions to invest in the China interbank bond market (CIBM) through mutual access arrangements in respect of trading, custody and settlement.

First of all, Bond Connect is an important measure adopted by the Central Government to support Hong Kong's development and promote cooperation between the mainland and Hong Kong. It is conducive to consolidating and enhancing Hong Kong's role as an international financial center and facilitates the long-term prosperity and stability of Hong Kong.

Secondly, the Bond Connect is a new bridge connecting the capital markets in the mainland and Hong Kong, following the Shanghai-Hong Kong Stock Connect and the Shenzhen-Hong Kong Stock Connect, It provides overseas investors with a new channel participating in the investment in the bond market in China, and also lays the foundation for

Chinese financial institutions' deeper participation in overseas markets.

Thirdly, the Bond Connect is an important measure for China to promote the opening up of its bond market to the outside world. It is conducive to diversifying the investor structure of the bond market and increasing the degree of internationalization of the market. Under the Bond Connect program, overseas investors can enter the Chinese bond market through their familiar overseas trading platforms and multi-tiered custodians, which are relatively convenient for them to access the market, thereby satisfying the needs of different types of overseas investors. Furthermore, the program helps to promote the diversification and globalization of investors in the Chinese bond market, and enhance the international influence of China's financial market.

2. Business rules for bond connect overseas investors

2.1 The scope of Bond Connect overseas investors

The scope of Bond Connect overseas investors based on the the requirements of the PBC remains consistent with the scope of existing overseas investors who are allowed to directly access the market and open accounts, that is, overseas investors that are consistent with the requirements stipulated in the Notice of the People's Bank of China on Issues Concerning Investment of Foreign Central Banks, International Financial Institutions and Sovereign Wealth Funds with RMB Funds in the interbank Market (PBC Document No.220 〔2015〕) and the Announcement on Further Improving Issues Concerning Investment of Overseas Institutional Investors in the Interbank Bond Market (Public Notice No.3〔2016〕) and other relevant documents. The qualified investors currently include: foreign central banks or monetary authorities, sovereign wealth funds, and international financial institutions; Qualified Foreign Institutional Investors (QFII), RMB Qualified Foreign Institutional Investors (RQFII); financial institutions legally incorporated outside China, including commercial banks, insurance companies, securities companies, fund management companies and other asset management institutions; investment products issued to customers by the above-mentioned financial institutions according to laws and regulations, and other medium and long-term institutional investors recognized by the PBC, such as pension funds, charitable funds, and endowment funds.

2.2 Access rules

The electronic trading platforms and other institutions recognized by the PBC may, as agencies, file with the PBC Shanghai Head Office on behalf of overseas investors. At present, agencies recognized by the PBC include the China Foreign Exchange Trade System, domestic custodian institutions, and interbank bond market settlement agents. Agencies may directly or entrust overseas cooperation agencies to receive filing materials.

2.3 Operation rules for trading and custody

(a) In terms of trading, overseas investors send trading instructions through PBC-recognized overseas electronic trading platforms, and conclude transactions with other investors on the PBC-recognized domestic electronic trading platforms.

At present, overseas electronic trading platforms include: Tradeweb, Bloomberg and other trading platforms can also connect to Northbound Trading after preparation is completed; domestic electronic trading platforms include the China Foreign Exchange Trade System. The transaction model for overseas institutions is to trade with domestic dealers (including market makers and trial market makers).

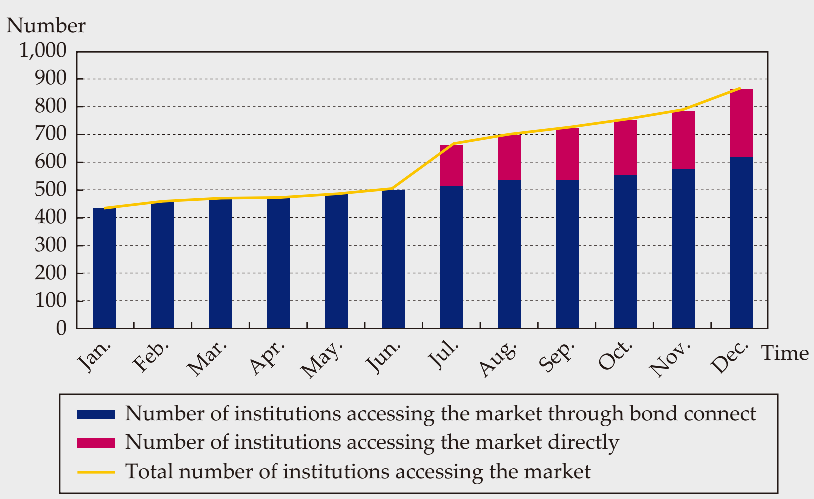
(b) In terms of custody, an internationally accepted multi-level custody mode is adopted. An overseas custodian institution opens a nominal holder account in a PBC-recognized domestic custodian institution to keep records of the nominal holder's total bond balance. The domestic custodian institution provides bond registration and custody services for the overseas custodian institution, while the overseas custodian institution provides bond registration and custody services to a bondholder who has opened a nominal holder bond account and a proprietary account with the custodian institution. At present, the HKMA (referring to its Central Money Markets Unit, i.e. the CMU) is the only overseas custodian institution. Domestic custodian institutions include China Central Depository & Clearing Co., Ltd. (CCDC) and Shanghai Clearing House (SCH).

3. Bond Connect business overview

3.1 Bond Connect rapidly attracted investors from various regions

By the end of 2017, a total of 249 overseas institutions entered the interbank bond market through Bond Connect, including 2 central bank institutions, 62 overseas commercial banks, 36 non-banking financial institutions, 119 collective investors, and 30 institutional investors of other types. Bond Connect investors are from 18 countries or regions that are located in Asia, Europe, Oceania, and North America, with 189 investors from Asia, 55 from Europe, 3 from Oceania, and 2 from North America.

Figugre 3.8 Number of overseas institutions accessing the interbank bond market in 2017



Source: China Foreign Exchange Trade System (CFETS) .

3.2 Trading activities became increasingly active

In 2017, the total amount of the spot bond transactions by Bond Connect overseas investors was RMB 275.985 billion.

In terms of the transaction direction, bonds were mainly bought by overseas investors. In 2017, they bought a total of RMB 204.702 billion, and sold RMB 71.283 billion. With respect to the types of participating institutions, most of them were overseas commercial banks, with the transaction volume of RMB 234.522 billion, accounting for 85.0% of the total transaction amount in the market.

3.3 Amount of bonds under custody expanded

By the end of 2017, the amount of bonds held by investors through Bond Connect reached RMB 88.796 billion. In terms of bond types, most were NCDs, which amounted to RMB 54.828 billion, accounting for 61.7% of the total amount of bonds under custody; policy bank bonds amounted to RMB 16.078 billion, accounting for 18.1% of the total amount; and government bonds amounted to RMB 9.621 billion, accounting for 10.8%. In terms of the rating of bonds traded, most were AAA-rated bonds, with a total amount of RMB 62.649 billion, accounting for 70.6%; and sovereign bonds amounted to RMB 25.764 billion, accounting for 29.0%. With respect to the maturity of the bonds, most of them would mature within one year, with a total amount of RMB 70.397 billion, accounting for 79.3%;the bonds with the maturity of one to three years amounted to RMB 12.071 billion, accounting for 13.6%, and the bonds with the maturity of three to five years amounted to RMB 2.386 billion, accounting for 2.7%.

Figure 3.9 Structure of bonds under custody traded by overseas institutional investors through Bond Connect in interbank bond market by the end of 2017

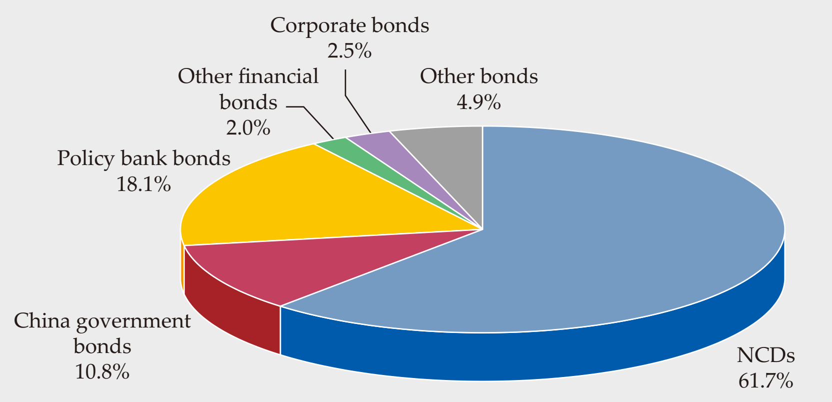


Table 3.3 Overview of bonds under custody which were traded by overseas institutional investors through Bond Connect by the end of 2017

Unit: RMB billion

Type of Organization	Amount of Bonds under Custody (billion yuan)
Central banks	95.08
Overseas commercial banks	777.77
Non-banking financial institutions	8.25
Collective investors	6.82
Other types of institutional investors	0.04
Total	**887.96**

Data Source: China Central Depository & Clearing Co., Ltd. and Shanghai Clearing House.

Box 2 Bond Market product innovation for the development of the real economy

The report of the 19th CPC National Congress pointed out that it was necessary to "strengthen the capabilities of finance to serve the real economy" and "increase the proportion of direct financing." The 2017 Central Economic Work Conference proposed that we must "overcome the three major challenges in building a well-to-do society with a decisive victory," and specified eight key tasks such as deepening supply-side structural reform. Since the 18th CPC National Congress, under the correct leadership of the CPC Central Committee and the State Council, the bond market had always adhered to the concept of serving the real economy, preventing systemic financial risks, and realizing high-quality economic development, and achieved rapid development.

1. Deepen supply-side structural reform and firmly implement the policy requirements of financial deleveraging

In 2017, the bond market adhered to the scientific, objective, and market-based bond issuance standard, insisted on serving the real financing needs of the real economy, paid more attention to changing the market growth momentum and optimizing the industry structure of the issuer, and further enhanced the ability of serving the real economy.

1.1 From the view of total volume, the size of bond issuance was in line with the real financing needs of the real economy

Under the circumstance of slowing economic growth and industrial structure adjustment, the investment growth rate of debt-issuing enterprises had declined, and financing demand had dropped. The change of corporate bond issuance reflected the real operation of the real economy. Take the non-financial corporate debt financing tool as an example, during the last five years since the 18th CPC National Congress, especially since 2015, the growth rate of the debt financing instruments issuance had been generally consistent with that of China's GDP growth. In

2017, the accumulative year on year growth rate of debt financing instruments issuance[1] converged with that of the monthly fixed asset investment completion volume[2] since 2017, matching the real financing needs of the real economy under the "L-shaped" macroeconomic trend.

Figure 3.10 YoY growth rates of GDP and DCM

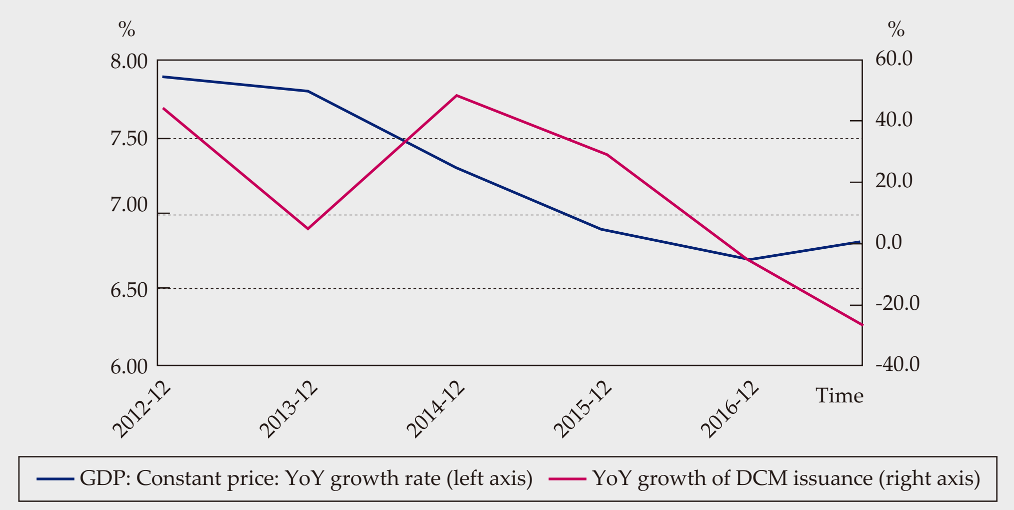
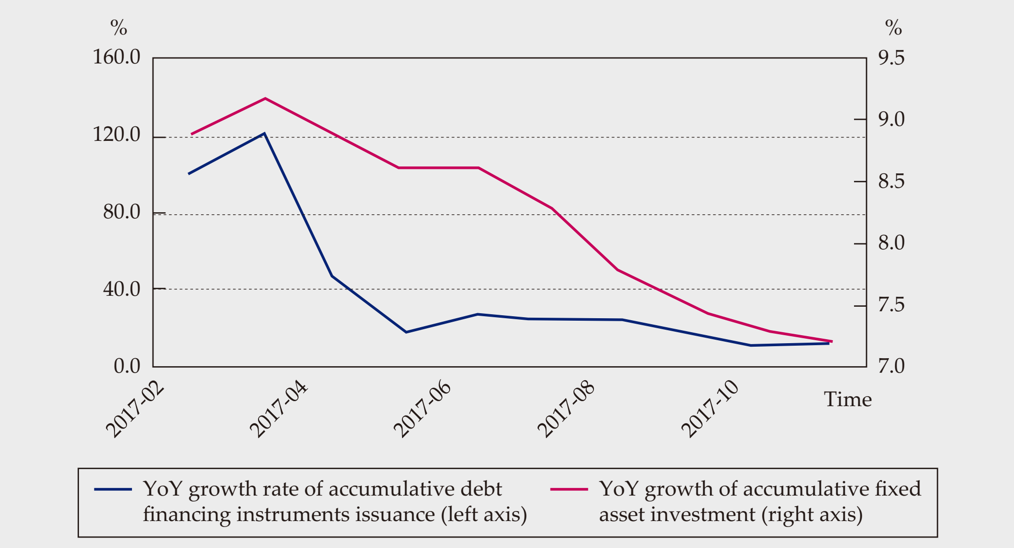


Figure 3.11 YoY growth rates of DCM and fixed asset investment



1 The growth rate of cumulative debt financing instruments issuance in comparison of that at the end of last month, that is (cumulative issuance at the end of this month-cumulative issuance at the end if last month) /cumulative issuance at the end of last month.

2 The index is released monthly by the National Bureau of statistics.

1.2 From the view of structure, bond market depicted the trend of changing growth drivers and optimizing industry structure

Corporate bond market witnessed a significant change in terms of issuer industry structure. Take the non-financial corporate debt financing tool as an example, the issuance volume of industries that failed to follow national policy directions had a sudden drop while that of the emerging industries experienced a gradual increase, leading to a downsize of issuance volume and slowing issuance growth rate in the past two years.

On the one hand, the share of overcapacity industry in issuance volume decreased rapidly. In general, capital-intensive industries such as manufacturing, mining, electrical, water, gas and transportation witnessed a fast fall in terms of its issuance of non-financial corporate debt financing tool, the proportion of which decreased by 4.3, 1.5, 9 and 3.3 percentage point respectively in 2017 compared with that of 2013.

On the other hand, innovative bonds support the financing of strategic emerging industries. The Innovation and Entrepreneurship Bond was launched, supporting bond registration of a total of RMB 17 billion from innovative companies in six provinces such as Shanghai, Jiangsu and Sichuan and the funds raised were mainly used for constructing the infrastructure projects, a total of RMB 1 trillion from high-end equipment manufacturer and advanced manufacture enterprises, and a total of RMB 858.6 billion from energy-saving, environmental protection, new information industry, bio-industry, new energy, new materials and other strategic emerging industries. The Innovation and Entrepreneurship Bond contributed to the promotion of traditional industries upgrade and the development of strategic emerging industries.

2. Accelerate the innovation, winning the victory of three tough battles

First, with regard to the critical prevention and removal of major risks, the market risk control mechanism has been improved through institutional innovation and product innovation so as to maintain the healthy operation of the market. In 2017, the industry-based assessment and analysis system for debt financing instruments (IAAD) was established on the register side of the debt financing instruments market and the risk warning framework that consists of industrial monitoring, credit strategy and quantitative research was established on the disposition side and as a result, risk prevention of all industries has been more normative and systematic and risk treatment has been more efficient and appropriate. In the meantime, innovation of credit risk mitigation instruments has been promoted continuously and the market-oriented sharing system for credit risks has been improved in support of the development of credit bonds. In 2017, the credit risk mitigation instruments (CRM) market registered a transaction volume of RMB 769 million, covering credit default swap (CDS), credit-linked note (CLN) and credit risk mitigation agreement (CRMA).

Secondly, in the area of the targeted poverty alleviation, The Poverty Alleviation Notes continue to innovate and guide more social funds to help the poor area. In the interbank market, there have been Poverty Alleviation Notes issued in 2017, amounting to RMB 37.5 billion. The raised funds are mainly used in project areas such as highways, urban infrastructure in poverty-stricken areas, and relocation of poverty-stricken areas, which can improve the poverty alleviation in 65 counties, benefiting 4.91 million poor people. The first Social Impact Bond was issued for the poverty alleviation project in Yinan, and the first Asset-backed Note has been registered successfully too. In the exchange market, the first Asset-backed Securities for sustainable development was issued in the Shanghai Stock Exchange, raising funds for the construction in the local shanty towns and supporting the housing resettlement and the related environmental renovation projects. The social responsibility bonds have raising funds for the local targeted poverty alleviation projects.

Thirdly, in the area of pollution prevention and control, we will actively explore new mechanisms which would support the development in the green economy and promote the construction in the green bond market. At first, it is effective to clarify the market system to improve the quality of the green bonds, and then the issuance and operation rules about the green bond are introduced. Furthermore, it's also a fine way to improve the convenience of the registered rules, and further improve the level of information disclosure. By the end of 2017, there are 27 companies registering nearly RMB 55 billion in the green bonds, with a issuance amount of RMB 24.684 billion, which would led the social capital to flow into the green industries, such as clean energy, public transportation, and so on. The capital would further improve the level of the financial services in the green economy, and support the social ecological civilization construction.

3. Adopting multiple measures to coordinate the implementation of national development strategy

Firstly, serving the construction and development of Xiongan New Area actively. The permanent debt financing instrument of China Xiongan Construction and Investment Group Corporation has been successfully registered. In the future, the debt financing instrument market will continue to support the construction of Xiongan New Area by product optimization and institutional innovation.

Secondly, supporting coordinated development of Beijing, Tianjin and Hebei Province. Under the cooperation framework of local branches of People's Bank of China, self-regulatory organizations and local governments, the debt financing instrument market is continuously promoting projects in key fields of Beijing, Tianjin and Hebei Province. By the end of 2017, 277 enterprises (excluding central enterprises and their subsidiaries) have financed RMB 1.7 trillion through the debt financing market. Also, in the year of 2017, the first dedicated debt financing instrument was successfully issued *on coordinated development of Beijing, Tianjin and Hebei Province, for the purpose of gutting unrelated function as national capital, and industry transfer from Beijing and Tianjin to Hebei Province, etc.*

Thirdly, promoting the interconnection along the Belt and Road Initiative core regions. In 2017, in Fujian Province and Xinjiang Uygur Autonomous Region, two "Belt and Road" core regions, RMB 145.8 billion of debt finance instruments were issued, effectively supported the key fields of infrastructure interconnection mentioned in the "Vision and Actions[1]". The amount of Panda Bond registered by foreign issuers along the Belt and Road Initiative countries or contribute to infrastructure interconnection is RMB 81 billion, and the amount of RMB 41.5 billion has been issued. Here are some typical examples: Hungarian government issued bond for the Belt and Road Initiative project cooperation between China and Hungarian; Polish government issued bond for the Belt and Road Initiative cooperation and purpose that matches green bond framework; China Merchants Port issued bond for construction projects in the Belt and Road Initiative countries.

1 i.e. Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road.

Part IV Stock Market

The performance of China's stock market in 2017 was more stable as indicated by a rapid growth in IPOs and the increasingly optimized financing structure; a bigger market share of professional investors and a higher awareness of value investing; smooth operation of market connectivity and further globalization of the A-share market; as well as strengthened market supervision and risk prevention measures for strict and comprehensive supervision, accompanied by innovations in serving the Belt and Road Initiative, expanding opening-up of the market and supporting SMEs development.

1. Operation of the stock market

1.1 Share issuance and financing

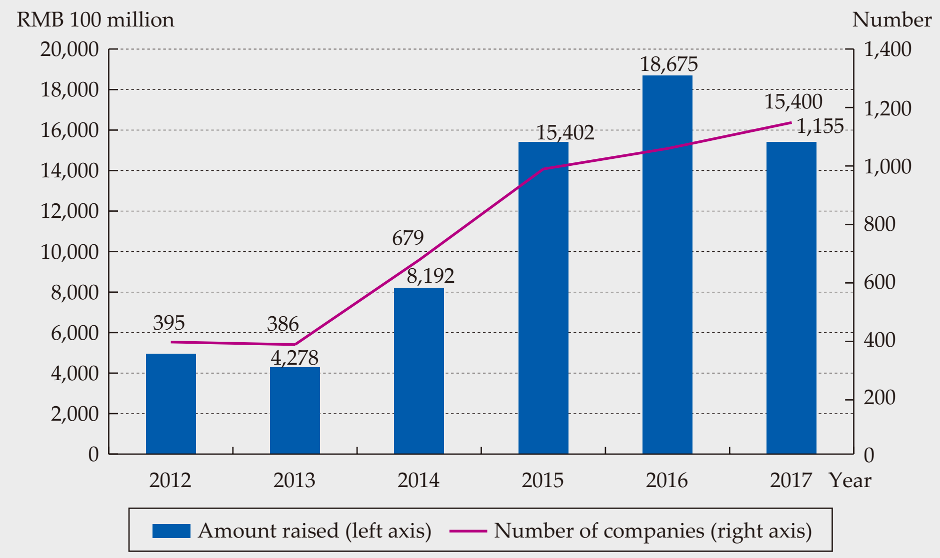
In 2017, 1,155 companies got listed on the Shanghai Stock Exchange (SSE) and the Shenzhen Stock Exchange (SZSE), 90 more than in the previous year, with the raised fund registering RMB 1.54 trillion, a year on year decrease of 17.54%. In terms of the means of financing, 436 companies, 209 more than in the previous year, completed the Initial Public Offerings (IPOs), raising a total of RMB 230.1 billion, a year on year growth of 53.81%; and 768 companies, 71 fewer than in the previous year, completed refinancing, raising RMB 1.31 trillion in total, a year on year decrease of 23.75%.

1.2 Stock indices and trading

As of end-2017, there were 3,485 companies listed on the SSE and the SZSE, 433 more than the end of the previous year. The number of stocks reached 3,567,433 more than the end of the previous year. The aggregated market cap of the stocks increased by RMB 5.94 trillion or 11.70% to RMB 56.71 trillion; while total free float market cap stood at RMB 44.93 trillion, up by RMB 5.59 trillion or 14.21% year on year. The market boasted a total of 5.37 trillion shares of capital stock, a year on year increase of 499.6 billion shares or 10.25%, of which float shares totaled 4.50 trillion, up by 390.9 billion or 9.50% year on year.

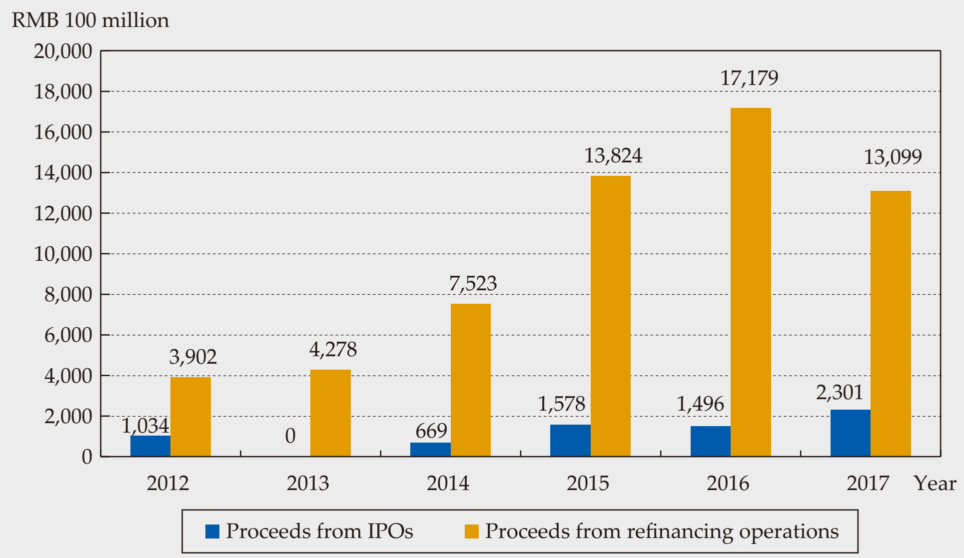
In 2017, the SSE Composite Index followed a V-shape trajectory and closed at 3,307 points (up 6.56% year on year), an above-average growth among the global markets, with the yearly high at 3,450 points and a maximum growth of 11.18%. The SSE 50 Index and the SSE 100 Index rose by 25.08% and 2.04% respectively from the end of the year before, while the SSE 150 Index dropped by 20.96% compared to the end of the previous year. The SZSE Component Index and the SME Board Index went up by 8.48% and 16.73% respectively from the end of the

Figure 4.1 Issuance and financing in the stock market from 2012 to 2017



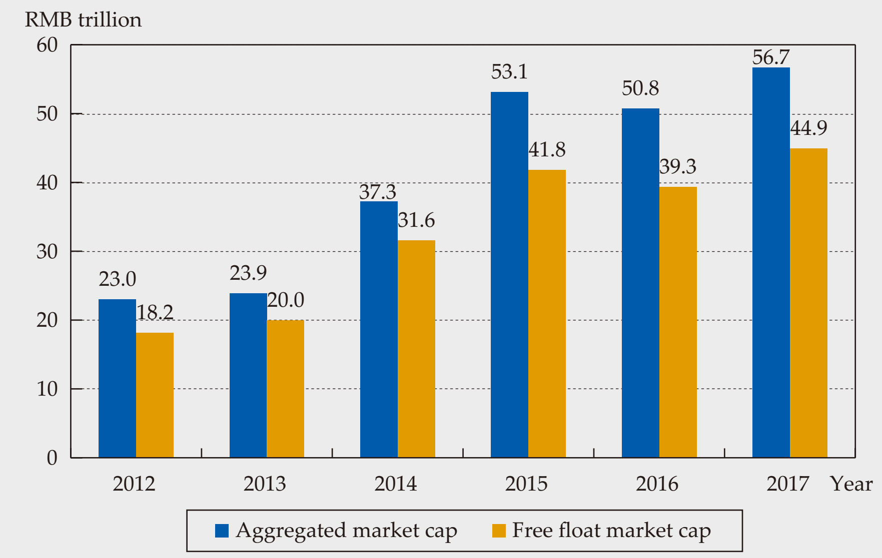
Source: SSE and SZSE.

Figure 4.2 IPOs and refinancing operations in the stock market from 2012 to 2017



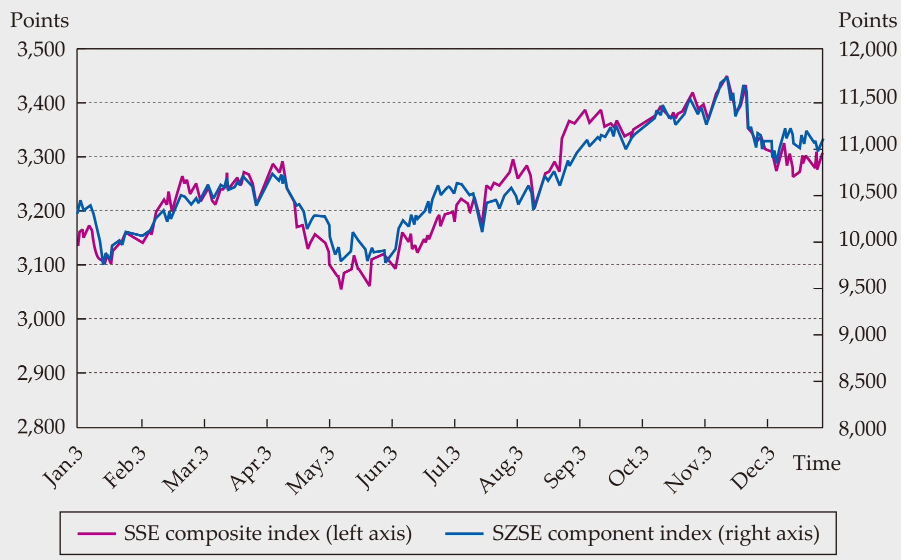
Source: SSE and SZSE.

Figure 4.3 Aggregated market cap and total free float market cap of the stock market from 2012 to 2017



Source: SSE and SZSE.

Figure 4.4 Movements of SSE Composite Index and SZSE Component Index in 2017



Source: SSE and SZSE.

previous year, while the ChiNext Board Index declined by 10.67% from the end of last year.

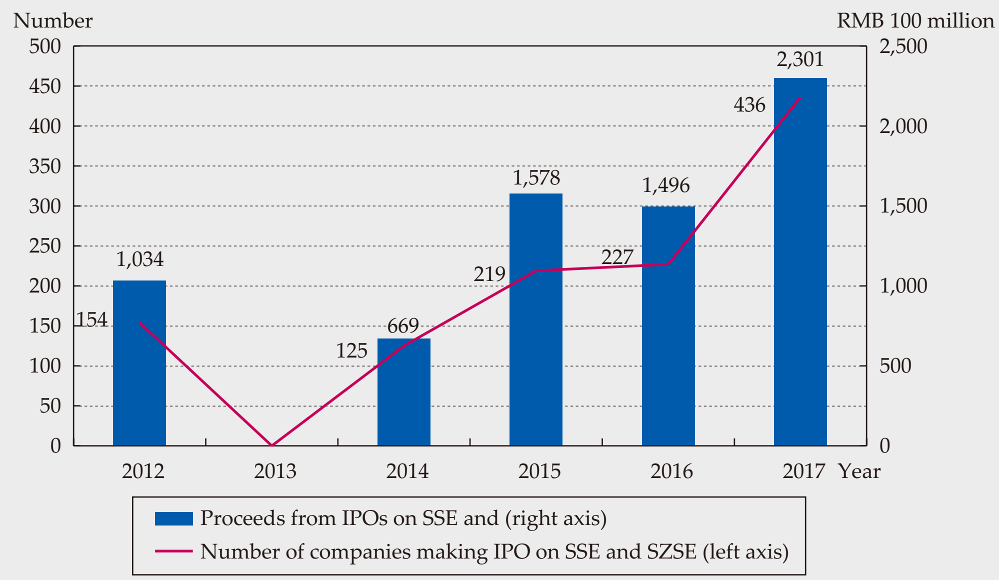
In 2017, 8.78 trillion (down 7.30% year on year) shares were traded on the SSE and the SZSE, including 4.38 trillion shares (down 2.42% year on year) on the SSE, 1.77 trillion shares (down 10.07% year on year) on the SZSE Main Board, 1.74 trillion (down 15.39% year on year) on the SZSE SME Board, and 0.88 trillion shares (down 7.16% year on year) on the SZSE ChiNext Board. Turnover of the SSE and the SZSE totaled RMB 112.46 trillion (down 11.71% year on year), including RMB 50.78 trillion (up 1.99% year on year) from the SSE, RMB 19.13 trillion (down 11.03% year on year) from the SZSE Main Board, RMB 26.00 trillion (down 24.45% year on year) from SZSE SME Board and RMB 16.55 trillion (down 23.66% year on year) from SZSE ChiNext Board.

2. Main features in the operation of the stock market

2.1 Optimized financing structure and IPO market dominated by SMEs

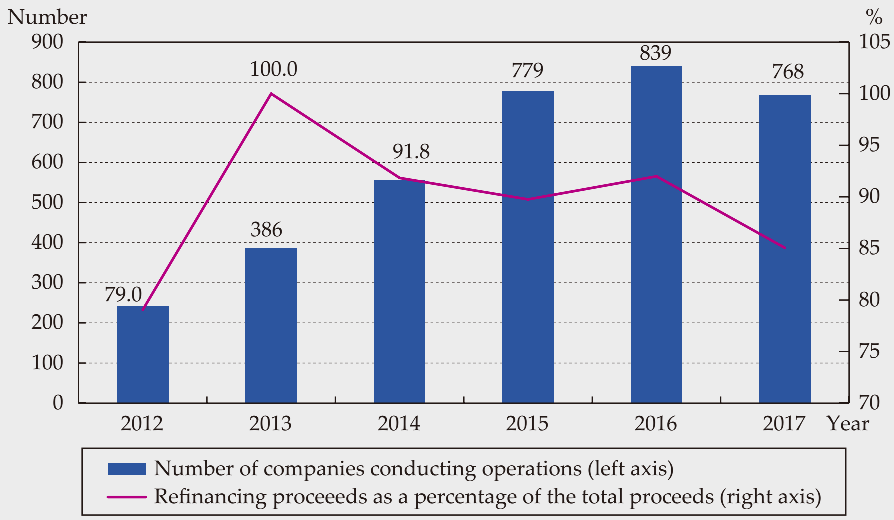
In 2017, a record high of 436 companies made IPOs on the SSE and the SZSE, and raised RMB 230.1 billion, accounting for 14.9% (up 6.9 percentage points year on year) of the annual total proceeds from offering of shares; meanwhile, 768 companies raised RMB 1.31 trillion through refinancing operations, a record low for the past 3 years, accounting for 85.1% of the total amount raised, a record low within the past 5 years. An average of

Figure 4.5 Number of companies making IPO and the resulting proceeds in the stock market from 2012 to 2017



Source: SSE and SZSE.

Figure 4.6 Number of companies conducting refinancing operations and the resulting proceeds in the stock market from 2012 to 2017



Source: SSE and SZSE.

RMB 528 million was raised through IPOs throughout the year, the lowest level since 2012, and SMEs dominated the IPOs market in 2017.

2.2 Less market fluctuation and higher awareness of value investing

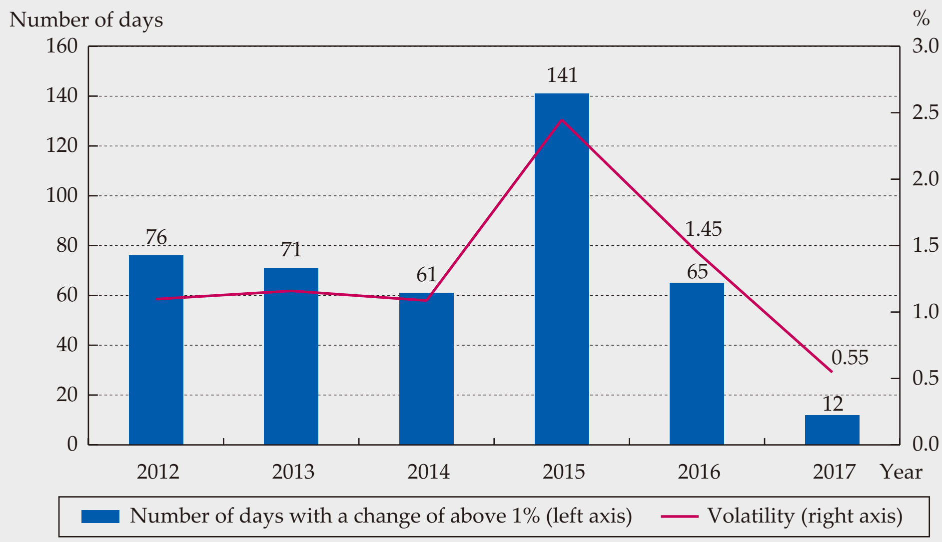
In 2017, the stock market in general witnessed less fluctuation and all market indices showed a V-shape trend. In particular, the SSE Composite Index had a volatility (i.e. the standard deviation of price change) of only 0.55% (down 0.9 percentage points year on year) and experienced a change of above 1% for only 12 days, 53 days less than the previous year, in each case, hitting a record low since the split share reform. Large cap blue chip stocks with strong performance outperformed small & mid cap stocks, with CSI 300 Index stocks representing 28.25% (up 5.89 percentage points year on year) of the total trading volume and the CSI 300 Index rising by 21.78% from the end of the previous year. This reflected greater rationality of investment decisions and higher awareness of value investing.

2.3 A bigger market share occupied by professional institutional investors[1] and the steady progress of internationalization

Taking the SSE as an example, professional

1 Source: SSE and Wind.

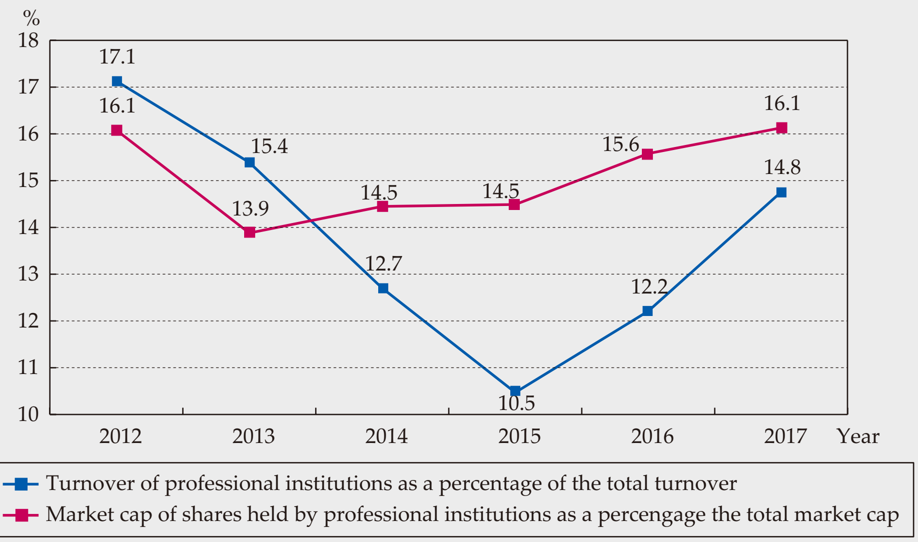
Figure 4.7 Movements of SSE Composite Index from 2012 to 2017



Source: SSE.

institutional investors held 16.13% (up 0.55 percentage points year on year) of the total free float market cap in 2017 and made up 14.76% (up 2.55 percentage points year on year) of the total trading volume, indicating a higher market share. As of December 31, 2017, under Shanghai-Hong Kong Stock Connect, stocks eligible for Northbound Trading had a total market cap of RMB 27.58 trillion, accounting for 83.49% of the total market cap of the SSE A-share market and a total turnover of RMB 1.31 trillion, including a net flow of RMB 62.973 billion into the SSE A-share market, while stocks eligible for Southbound Trading had a total turnover of RMB 1.49 trillion, including a net flow of RMB 196.806 billion into HKEX' s Main Board market. Under Shenzhen-Hong Kong Stock Connect, stocks eligible for Northbound Trading had a total market cap of RMB 17.58 trillion, making up 78.84% of the total market cap of the SZSE A-share market, and a total turnover of RMB 976.896 billion, representing 1.58% of the total turnover of the SZSE A-share market, while stocks eligible for Southbound Trading had a total turnover of RMB 467.581 billion, accounting for 2.62% of the total turnover of HKEX's Main Board market. On an aggregated basis, RMB 1.44 trillion of stocks were traded under Shenzhen-Hong Kong Stock Connect, including a net total inflow of RMB 48.46 billion. In short, the mutual market connect mechanism between Hong Kong SAR and Main Land China was in stable performance, and the globalization of China's A-share market was advanced steadily.

Figure 4.8 Trading value and holding value of professional institutions at SSE in 2012—2017



Source: SSE.

3. Product innovation and institutional construction of the stock market

3.1 A range of new fund products were launched

First, the official offering of the first five Funds of Funds (FOF) by China Southern Fund Management Co., Ltd., China Asset Management Co., Ltd, Harvest Fund Management Co. Ltd., CCB Principal Asset Management Co., Ltd. and HFT Investment Management Co., Ltd. further diversified investment risks, optimized asset allocation operations and lowered the threshold for diversified fund investments. Second, the CSRC issued the *Guidelines for Securities Investment Funds Targeting Pension Assets (Interim, for public comments)*, enabling faster launching of public fund products related to pension assets. Third, the successful offering of the second State-owned Enterprise (SOE) Reform ETF – Huitianfu Shanghai SOE Reform ETF further facilitated the reform of SOEs and central SOEs. Fourth, relevant ETF products underlying China Strategic Emerging Industry Component Index and a series of China A-Share-related MSCI indices were under development. Moreover, E Fund CSI Overseas China Internet 50 ETF, which invests into overseas-listed Chinese internet enterprises, and a series of cross-border LOFs, which invest into the US dollar bond market and the Hong Kong market, were officially listed. With the classes of their underlying assets covering stocks, bonds, currencies, gold and overseas assets such as Hong Kong-listed stocks, U.S.-listed stocks, Europe-listed stocks, crude oil futures and US dollars, ETFs became important instruments for investors to allocate their assets.

3.2 Construction of the indices system was improved

In 2017, 55 new A-share indices were introduced in China and thematic indices and strategic indices such as Green Stock Index, Green Bond Index, Poverty Alleviation and Development Thematic Index, Northeast Development Thematic Index, Strategic Emerging Industries Index, China New Economy Index, Guangdong-Hong Kong-Macao Bay Area Development Index, New Energy Vehicles Industry Index and Financial Technology Index became a major trend in index development. The newly launched stock indices reflected the new tendency of economic development; led the market to focus on new industries and contributed to China's major development strategies, further improving the system of indices in the domestic stock market. During 2017, 86 new domestic index products were issued, a year on year increase of 53.6%, raising RMB 34.983 billion in total. Among these products, funds which track emerging thematic index, Smart Beta index, HK Equities index and other indices, on an aggregated basis, raised RMB 12.6 billion and one product tracking a new index issued in 2017 raised RMB 15 million. Core indices represented by CSI 300, CSI 500, SSE 50, SSE 180, Shenzhen Component Index, SME Board Index and ChiNext Index became increasingly recognized and influential at home and abroad. At the end of 2017, 300 domestic public funds tracking the CSI 300 index, a year on year growth of 8.3%, had a total market value of nearly RMB 130 billion, up by 18.2% year on year; 30 overseas products tracking CSI 30, a year on year growth of 3.4%, had a total market value of RMB 39.2 billion, up by 25.6% from the year before.

3.3 Upgraded securities issuance system

First, the CSRC amended parts of the *Implementation Rules for Non-Public Offering of Shares by Listed Companies (CSRC Decree No.73)* and issued the *Q&As Regarding Regulation of Offering of Shares – Regulatory Requirements for Guiding and Regulating Financing Activities of Listed Companies* to further improve the rules governing the non-public offering of shares by listed companies and highlight the binding effect of market-based pricing mechanism, providing positive and effective solutions to existing problems such as listed companies' shift from the real economy to the virtual economy, the adverse effect on the allocation of resources and the formation of long-term capital caused by the non-public offering pricing mechanism selection process due to the existence of a big room for arbitrage, and an imbalanced refinancing products mix. Second, the CSRC amended parts of the *Measures for Administration of Securities Offering and Underwriting Activities* (*CSRC Decree No. 98*) to modify subscription methods for instruments such as convertible corporate bonds and specify that online investors are not required to make prepayments for subscription purpose when subscribing for convertible corporate bonds and exchangeable corporate bonds, effectively resolving the problem of freezing of a large amount of capital in connection with the issuance of convertible bonds and exchangeable bonds.

3.4 Enhanced supervision and administration of the market

First, the CSRC strengthened supervision of market participants and their market behavior. Specifically, the CSRC released *the Rules on Classified Supervision of Securities Companies (CSRC Announcement* 〔2017〕 *No. 11)* to improve day-to-day supervisory measures and guide companies to maintain their operation in a prudent manner in accordance with laws and regulations; *the Measures for Administration of the Compliance Efforts of Securities Companies and Securities Investment Fund Management Companies* (CSRC Decree No. 133) to provide greater safeguard for the compliant performance of duties, and enhance the investigation of liability for violations of laws and regulations and other measures by clarifying the respective duties of the board of directors, board of supervisors, senior management, chief compliance officers, etc.; *the Provisions on Reduction of Shareholdings by Shareholders, Directors, Supervisors and Senior Executives of Listed Companies* (CSRC Announcement 〔2017〕 No.9) to further regulate the reduction of shareholdings by shareholders by expanding the applicability of the shareholding reduction rules, specifying the sources of shares subject to restrictions on reduction of shareholdings, imposing greater restrictions on reduction of shareholdings performed by means of block trade and strictly regulating disguised and bridge reduction of shareholdings. Second, the CSRC regulated M&As and reorganizations by amending the *Standards for Contents and Formats of Information Disclosures by Companies Publicly Offering Securities No. 26 –Material Asset Reorganizations of Listed Companies (CSRC Announcement* 〔2014〕 *No.53)* to improve the efficiency of M&As and reorganizations and at the same time, crack down upon confusingly false and follow-suit reorganizations, regulate reorganization and listing, and increase the certainty and transparency of transactions; and issuing the *Q&As on Reinforcing the Signature Responsibility of the Management of Financial Advisors for the M&A and Reorganization Projects of Listed Companies* to urge financial advisors to perform their duties diligently and protect the lawful rights and interests of investors, especially small investors. Third, the CSRC strengthened the administrative duties of market regulatory authorities and agencies. For this purpose, the CSRC issued the *Interim Measures for Supervision and Administration of Regional Equity Markets (CSRC Decree No. 132)* to define the regulatory duties of the securities regulatory authorities and local financial regulatory authorities and improve the regulatory coordination mechanism, helping prevent regulatory gaps, regulatory arbitrage and regional equity market risks and promoting the sound development of regional equity markets; and the revised *Measures for Administration of Securities Exchanges (CSRC Decree No. 136)* to further enhance frontline supervision function of securities exchanges, improve rules governing frontline supervision, continue the development of a safeguard system for frontline supervision and bring self-regulation to full play.

3.5 Optimized market risk prevention mechanism

First, the CSRC issued the *Guidelines for Hedging Strategy Funds (CSRC Announcement* 〔2017〕 *No.3)* to improve risk control requirements for hedging strategy funds, helping restore related fund products to their asset management nature in the public fund industry, further enhancing the industry's capability to prevent and control risks and preventing risks arising in connection with fund investment operations. Second, the CSRC released the *Rules for Management of Liquidity Risks of Publicly-Offered Open-Ended Securities Investment Funds (CSRC Announcement* 〔2017〕 *No. 12)*, comprehensively reviewing and amending existing liquidity risk management requirements for open-ended funds, reinforcing the minimum requirements and responsibilities for liquidity risk management and control, helping reduce the structural vulnerability of fund businesses and promoting the sustained and sound development of China's public fund industry. Third, the *Administrative Measures for Securities and Futures Investor Suitability (CSRC Decree No. 130)* formally came into effect, which specifies corresponding institutional arrangements for actual problems in investor suitability, contributes to the effective protection of the rights and interests of small investors, and symbolizes an important step forward in the development of fundamental rules on the protection of the lawful rights and interests of investors in China's capital markets.

4. Opening-up of the stock market

4.1 A-share stocks included into the MSCI Emerging Markets Index

On June 21, 2017, the MSCI announced that China's A-share stocks would be incorporated into its Emerging Markets Index and World Index from June 2018. The 222 A-share stocks to be included into MSCI Emerging Markets Index will represent a weighting of 0.73% in MSCI Emerging Markets Index. As a positive recognition of the development of China's capital markets by international investors, this inclusion will attract more overseas funds and institutional investors into the market in Mainland China to help improve the composition of A-share market investors, enhance the capability of the capital markets to support the real economy, increase the international influence of the A-share market and promote the internationalization and long-term sound development of China's capital markets.

4.2 Positive progress made in supporting the Belt and Road Initiative

More support was given to the domestic and overseas financing activities of listed companies, and the pilot program of corporate panda bonds was launched. Under this pilot program, 15 overseas companies from the Belt and Road countries and other countries issued 48 panda bonds, raising a total of RMB 85.9 billion. The SSE and the SZSE were encouraged to, with supporting the development of the

Belt and Road projects as their main targets, deepen cooperation on the two-way opening-up of the capital markets and accelerate their globalization. The two exchanges provided standardized solutions for cooperation between 50 foreign companies and innovation capital in China by a number of means, including but not limited to holding equity interests of foreign stock exchanges, signing strategic cooperation agreements and providing cross-border capital service mechanism, and cooperated and communicated with market service providers and companies from countries along the Belt and Road to promote the formation of cross-border capital, with a view to enabling the capital markets to provide strong support for the implementation of the Belt and Road projects.

4.3 Efficient and practical international communication and cooperation

Having made positive progress in the research and preparation of operational rules and arrangements for the Shanghai - London Stock Connect program, China and Britain agreed to further consider allowing qualified listed companies from the two countries to issue depository receipts on each other's market and schedule the launch of the program when appropriate. The CSRC and the Australian Securities and Investments Commission (ASIC) signed the Information Sharing Cooperation Agreement which allows the sharing of information on the latest developments of the financial technology sector and applicable regulatory policies. SSE Chairman Wu Qing was elected the Chairman of the World Federation of Exchanges, which marked the first time that an exchange from China hold a key leadership position in an international industry association and would help raise the voice of China's capital markets in the international arena and promote international communication and cooperation as well as the global governance reform. In addition, the SSE and the SZSE joined the United Nations Sustainable Stock Exchanges (SSE) initiative as a partner exchange, which would enable China to further promote the sustainable development of the market and the establishment of a green financial market based on successful international experience.

5. Outlook on the development of the stock market

The amendments to the *Securities Law of the People's Republic of China* will be reviewed for the third time in 2018. The law-governed development of China's capital markets, the optimization of the multi-tiered capital market system and the reform and improvement of market discipline, endogenous development and innovation mechanisms will become top priorities in the development of the capital markets. China's stock market will continue to comply with the strict and comprehensive supervision requirements, boost multi-layered equity financing, enhance the function of the capital markets in serving the real economy, accelerate the implementation of the opening-up strategy and give positive support to the implementation of the Belt and Road projects, thereby improving the capability of the capital markets to serve the real economy.

5.1 Continuing to comprehensively exercise strict supervision

First, the CSRC will take strict precautions to prevent risks by ensuring the quality of IPOs, refinancing operations, as well as M&As and recapitalization, and imposing greater accountability requirements on issuers and sponsors. Second, the CSRC will continue to exercise supervision over listed companies with a focus on sufficient information disclosure and guard against speculation on concept stocks and leveraged buyout and other acts which disrupt the market as well as illegal activities and misconduct. Third, the CSRC will continue to put more efforts on supervision of the financial information of listed companies with an emphasis on financial information contained in periodic reports to improve the market ecosystem and restore the valuation system. Fourth, the CSRC will supervise trading activities with a focus on the members of exchanges by developing more rules and regulations, improving implementation rules governing trading activities, and implementing the accountability system of members managing their customers. Fifth, the CSRC will strengthen market surveillance with a focus on unusual trading activities. Specifically, the CSRC will conduct real-time monitoring in a more specialized and detailed manner, refine the monitoring and analysis of industry segments, hot concepts and individual stock risks, and focus on improving its capability to exercise real-time pass-through supervision and give early warnings against and monitor market risks.

5.2 Further developing the multi-tiered capital market system

First, the CSRC will continue to promote the development of the main board market, increase efforts to support the development of the new economy and grow the new blue chip market to make the main board market more dynamic. Second, the CSRC will further reform the ChiNext board and the NEEQ market to provide greater support to micro, small and medium-sized innovative, startup or growth enterprises. Third, the CSRC will continue to facilitate the regulated development of regional equity markets and explore the establishment of a mechanism for cooperation between regional equity markets and the NEEQ market to speed up the development of regional equity markets which have complete financing functions, provide flexible services and operate in a safe and compliant manner.

5.3 Continuing the reform and improvement of market mechanisms

First, the CSRC will establish a normal mechanism for IPOs. Specifically, the CSRC will, while ensuring that IPOs are made at a reasonable and stable pace, continue to increase efforts on the quality review of IPOs, encourage all types of companies to rely on the stock market for their further growth, and allow IPOs applicants newly accepted by it to undertake IPOs in the same year, making them play a positive role in supporting the development of the real economy. Second, the CSRC will continue to improve the delisting regime by considering and drafting criteria and procedures for determining the delisting of listed companies for material violations of laws and optimizing and adjusting the thresholds for compulsory delisting of listed companies for financial reasons, thereby promoting the survival of the fittest in the market. Third, the CSRC will deepen the market-oriented reform of M&As and reorganizations. Specifically, the CSRC will regulate the M&As and reorganizations of listed companies by further simplifying the administrative licensing process for M&As and reorganizations of listed companies, encouraging innovation in M&A and reorganization methods, promoting the removal of barriers for cross-sector, cross-region and cross-ownership M&As and reorganizations and improving relevant supporting rules.

5.4 Making the stock market more accessible to foreign investors

In 2018, supporting the implementation of the Belt and Road projects will remain a top task for China's stock market during its opening-up process. At the same time, the CSRC will strengthen cooperation with the capital markets of the Belt and Road countries at a higher level, accelerate in-depth cooperation between China's stock exchange and those of the Belt and Road countries on technologies, products and management, etc., prepare for the establishment of a federation of exchanges from the Belt and Road countries and a communication and cooperation center for these exchanges and build a community of shared interests and future for the capital markets from the Belt and Road countries. Meanwhile, the CSRC will also enhance connectivity among exchanges and seek further globalization by continuing to optimize Shanghai/Shenzhen-Hong Kong Stock Connect, improve the selection of stocks eligible for Southbound Trading and speed up the launch of London-Shanghai Stock Connect program, further expanding the international development of China's stock exchanges. In addition, the CSRC will continue to boost cooperation on the self-regulation and risk management of exchanges, the development of exchanges' international trading platforms, and the introduction of D-share trading by CEINEX.

BOX 3 Comprehensively enhancing the development of the regulatory framework for the stock market

In 2017, the CSRC, the SSE and the SZSE carefully studied and implemented the spirit of the 19th CPC National Congress, the Central Economic Work Conference and the National Financial Work Conference and strictly complied with the requirement of strict and comprehensive *supervision in accordance with the Securities Law, the Company Law and the Measures for the Administration of Securities Exchanges (CSRC Decree No.136) and other laws and regulations, achieving positive results in the development of the regulatory framework for the stock market. New progress made in the development of the fundamental legal framework for the capital markets in 2017 includes the promulgation of 13 administrative regulations on securities supervision and 23 normative documents and the formulation of over 100 self-regulatory rules. Specifically, the SSE developed 11 new rules, revised 9 rules, and 246 rules then in effect; and the SZSE formulated and revised 46 rules and had 171 rules then in effect. The well-developed system of market rules provides strong safeguard for the stable and long-term development of the stock market.*

1. Further developed fundamental rules and solidified foundation for the sound development of the market in the long run

In 2017, the fundamental legal framework for the capital markets, including the Securities Law and the Company Law, was further improved and progress was made in the development of fundamental rules. Specifically, first, the Standing Committee of the National People's Congress (NPC) deliberated the Securities Law (Revised Draft) in April for the second time, focusing on making institutional arrangements necessary to the sound development, regulation of the securities market and the adoption of enforcement actions; second, the Judicial Interpretation IV for the Company Law was issued, providing for, among other key matters, the effectiveness of resolutions, protection of shareholder rights, distribution of corporate profits, preemption rights and litigation by shareholders on behalf of their company. In addition, the CSRC and exchanges gave positive support to the amendments to the Company Law and the Securities Law and provided recommendations on the amendments to the two laws with respect to legal issues existing, in practice, in the regulation of listed companies; and third, research on amendments to the Criminal Law was carried out to facilitate the improvement of criminal judicial interpretations, crack down upon criminal offenses in the capital markets, identify more illegal securities and futures-related activities as crimes, establish the constitutive elements of criminal acts and increase the severity of criminal punishments, especially freedom deprivation punishment. Moreover, the first regulation designed to protect investors in China's securities and futures markets, i.e. the Administrative Measures for Securities and Futures Investor Suitability (CSRC Decree No.130), was formally issued, which will have a positive and far-reaching impact on the sound development of China's capital markets and the protection of the rights and interests of small investors.

2. Improved regulatory regime for offering of securities and increased offering review efficiency and standardization

The revised Measures for the Administration of Securities Offering and Underwriting Activities (CSRC Decree No.135) issued by the CSRC *has optimized issuance methods for convertible bonds and exchangeable bonds; changed the subscription mode from money-based into credit-based and set up a sanction mechanism for defaults in online credit-based subscription. The revised Implementation Rules for the Non-Public Offering of Shares by Listed Companies (CSRC Announcement 〔2017〕No.5) has improved specific rules on the termination of offering and provides that only the first day of the offering period for a non-public offering of shares by a listed company shall be the pricing benchmark date. This provision supersedes the previous one that the date of announcement of resolutions passed by the board of directors and the date of announcement of resolutions passed at the shareholders' meeting shall be the pricing benchmark date for the non-public offering of shares by the listed company. In addition, offering review rules, including but not limited to the Measures for the Public Offering Review Committee (CSRC No.134), the Regulation on Enhancing the Avoidance of Public Offering Review Staff during the Performance of Duties, the Regulation on Enhancing the Avoidance of Public Offering Review Committee Members during the Performance of Duties (CSRC Announcement 〔2017〕No.1), and the Measures for Appointments Made by and Reception of Prospective Issuers for Public Offering Review Purpose (CSRC Announcement 〔2017〕No.2) were issued upon being revised by the CSRC to enhance the quality of information disclosure in relation to strict public offering review, further standardize the use of the public offering review powers and prevent rent seeking and standardize and optimize the institutional mechanism and organizational structure of the Public Offering Review Committee. The CSRC also further implemented comprehensive and strict supervision in accordance with the law; severely stroke against fraudulent offering, and enhanced the openness, fairness and equitableness of the share offering process, and in addition to increasing the efficiency of public offering of shares, greatly improved the quality and transparency of the public offering of shares.*

3. Optimized regulatory regime for listed companies and continued enhancement of ongoing supervision

First, new rules on the reduction of shareholdings were issued to consolidate the fundamental rules for trading of shares. The Provisions on the Reduction of Shareholdings by Shareholders, Directors, Supervisors, and Senior Executives of Listed Companies (CSRC Announcement 〔2017〕No. 9), the Implementation Rules for Reduction of Shareholdings by Shareholders, Directors, Supervisors and Senior Executives of Listed Companies (SSE 〔2017〕No. 24) and guidelines for the formats of relevant public announcements were officially promulgated, comprehensively regulating majority shareholders, specific shareholders, and directors, supervisors and senior executives as well as call auction trading, block trading and transfer by agreement and further strengthening the fundamental rules for trading of shares. The implementation of relevant rules and regulations has effectively suppressed activities which disrupt the market such as bridge reduction of shareholdings by way of block *trade, liquidation-like reduction of shareholdings and concentrated reduction of holdings in specific shares at a low cost. Second, the CSRC improved regulatory rules on information disclosure and continued to put more efforts on inquisitive regulation by issuing the revised Standards for the Contents and Formats of Information Disclosures by Companies Publicly Offering Securities No.26 - Material Asset Reorganizations of Listed Companies (CSRC Announcement〔2017〕No.14), the Standards for the Contents and Formats of Information Disclosure by Companies Publicly Offering Securities No.2 - Contents and Formats of Annual Reports (CSRC Announcement〔2017〕No.17), the Standards for the Contents and Formats of Information Disclosure by Companies Publicly Offering Securities No. 3: Contents and Formats of Semi-Annual Reports (CSRC Announcement〔2017〕No.18), etc. The CSRC drafted and revised rules on the disclosure of important information, including high bonus shares, change in equity, wealth management for listed companies, performance forecasts and performance updates, as well as the receipt of government allowance by listed companies and their engagement in specific businesses. In addition, the CSRC continued to deepen inquisitive ongoing regulation, enhanced regulation over speculation on hot concepts such as shares related to Xiong'An New Area, shares subject to cyclical price rise, post-IPO shares and high bonus shares, and focused on cracking down upon market misconduct such as an increase in shareholdings through high-leverage acquisition, covert change of control and confusingly false transfer of equity interests.*

4. Enhanced regulatory regime for trading of securities and effectively protected trading process

In 2017, the SSE and the SZSE improved frontline supervision for securities trading mainly by "restricting the trading via certain accounts" as stipulated in the Securities Law based on the real-time monitoring responsibilities required under Article 115 of the Securities Law, focused on and intensified supervision over unusual activities in the trading of securities and maintained the normal trading process. Specifically, the two exchanges considered and drafted relevant rules on the self-regulation of unusual activities in the trading of shares on the exchanges and improved relevant indicators, thus establishing a fundamental regulatory regime for unusual trading activities on the exchanges; considered and drafted rules on "intensively monitored accounts" for all market members to hold members accountable for management of their customers and set forth relevant specific management measures; revised and improved market early warning indicators, clue analysis and submission criteria, working procedures and other internal business procedures, increasing the standardization of supervision over abnormal trading activities. Based on their rules and regulations, the SSE and the SZSE enhanced supervision over abnormal securities trading activities in all respects by: enhancing "substantive" ongoing regulation and improving the trading ecosystem based on a real-time panoramic view of the market; making regulatory interventions such as giving early warning and prompting securities companies to cooperate with *inspection for serious abnormal trading activities suspected to involve market manipulation in order to prevent minor violations from evolving into major violations; and verifying clues to some difficult and complicated cases involving violations of laws and regulations, thereby providing strong support to the CSRC's ad hoc investigation and enforcement actions.*

5. Upgraded regulatory regime for financial institutions and reinforced role as the "goalkeeper"

In 2017, the CSRC developed and issued the Rules on Classified Supervision and Administration of Securities Companies (CSRC Announcement〔2017〕No.11), the SSE promulgated the Internal Working Procedures for Onsite Inspection of Management of Trading Activities by Members (for Trial Implementation), and the SSE and the SZSE revised the Member Management Rules and the Implementation Rules for Administration of Securities Trading Activities of Members' Customers. These rules and regulations have made supervision and onsite inspection of financial institutions more rule-based and standardized, enhanced the responsibilities of financial institutions for management of trading activities of their customers and guided financial institutions to turn external regulatory pressure into internal motivation for standardization. In addition, the CSRC reviewed and improved rules and regulations regarding risk control, compliance management, subsidiaries of fund management companies, asset management products, etc. and propelled the financial industry to improve self-regulation. These efforts have significantly improved the industry participants' awareness to comply with laws and regulations and act with due care and diligence and helped the industry develop in a more sound and stable manner.

6. Revised measures for the administration of stock exchanges and solidified frontline supervision

The CSRC issued the revised Measures for Administration of Stock Exchanges (CSRC Decree No.136), which has strengthened the role of exchanges as a front line supervisor under new market conditions; allowed exchanges to play its role in organizing, supervising, administering and serving securities trading activities; improved their internal governance structure and highlighted their nature as a self-regulatory organization. The SSE and the SZSE continued with their efforts to make a package of amendments to their relevant rules by overhauling their securities listing agreements, promoting the revision of their Measures for Formulation and Administration of Rules and other internal management rules, and conducting special evaluation and optimization of their rules.

Part V Foreign Exchange Market

In 2017, the trading volume in China's foreign exchange market maintained steady growth, and foreign currency lending market grew rapidly. The exchange rate of the Renminbi (RMB) against a basket of currencies remained basically stable and appreciated against the US dollar (USD). The "counter-cyclical" factor was introduced into the RMB central parity rate formation mechanism. The exchange rate formation mechanism has been further improved and the exchange rate flexibility has been significantly enhanced. The product innovation, institution construction, and opening up of the foreign exchange market has steadily advanced, thus supporting the construction of the Belt and Road and serving the development of the real economy.

1. Foreign exchange market overview

1.1 RMB exchange rate in general stayed stable

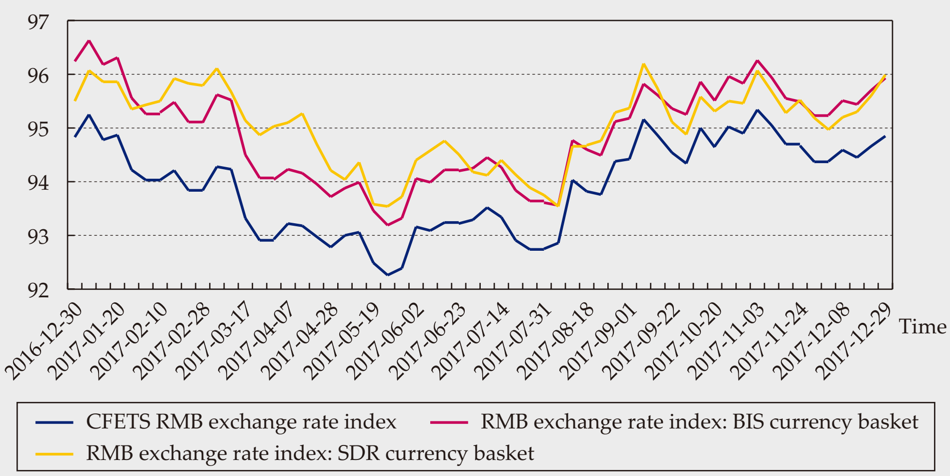
In 2017, RMB against a basket of currencies remained roughly flat compared to the previous year. At the end of December 2017, the CFETS RMB exchange rate index, the RMB exchange rate index against the BIS and SDR currency basket were 94.85, 95.93, and 95.99, respectively, representing an appreciation of 0.02%, a depreciation of 0.32%, and an appreciation of 0.51% compared to the end of the previous year.

RMB appreciated against US dollar. At the end of December 2017, the central parity rate of RMB against US dollar was 6.5342, representing an appreciation of 6.4% from the beginning of 2017. The cumulative appreciation of the spot rate of the interbank foreign exchange market (CNY) and the overseas market (CNH) was both 6.8%. Since the reform of RMB exchange rate formation mechanism in 2005, the central parity rate of RMB against USD has appreciated by 26.7%.

RMB recorded both appreciation and depreciation against other major currencies. At the end of December 2017, the central parity rate of RMB against Euro, Japanese Yen, British Pound, Australian Dollar and Canadian Dollar was 7.8023, 5.7883, 8.7792, 5.0928, and 5.2009, respectively, depreciated by 6.7%, appreciated by 2.5%, depreciated by 2.6%, depreciated by 1.7%, and depreciated by 0.4% compared to the beginning of the year.

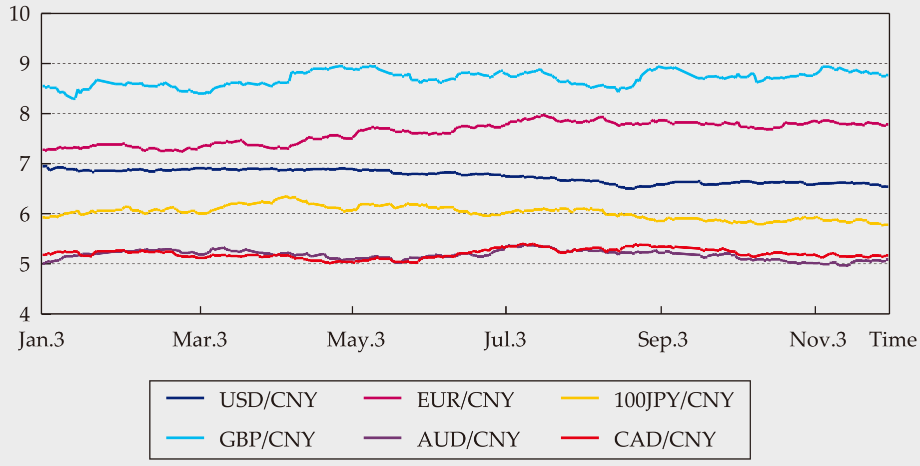
According to the data from the Bank for International Settlements (BIS), as of November 2017, the nominal effective exchange rate of RMB depreciated by 0.6% and the real effective exchange rate depreciate by 1.2% after deducting the inflation factor, of which the devaluation rate among the 61 currencies monitored by BIS ranked 21st and 18th respectively. Since the reform of the RMB exchange rate formation mechanism in 2005, the cumulative RMB nominal and real effective exchange rates have appreciated by 33.7% and 42.8% respectively.

Figure 5.1 Fluctuations of RMB exchange rate index in 2017



Source: China Foreign Exchange Trade System & National Interbank Funding Center.

Figure 5.2 Fluctuations of RMB exchange rate against major currencies



Source: China Foreign Exchange Trade System & National Interbank Funding Center.

1.2 Trading volumes in the foreign exchange market maintained steady growth

In 2017, the cumulative turnover of the interbank foreign exchange market (excluding derivatives) totaled RMB 87.7 trillion, representing an increase of 71.7% year on year. Among them, the RMB spot exchange market turnover was RMB 43.2 trillion; foreign currency spot market turnover was RMB 0.5 trillion, and foreign currency lending market turnover was RMB 44 trillion.

With the increasingly opening-up of the interbank market, the number of members in the interbank foreign exchange market also continued to increase. As of the end of 2017, there were 645 members in the RMB foreign exchange market (including 81 overseas members including overseas central bank institutions, overseas clearing banks, and overseas participating banks), 175 currency pair members, and 469 foreign currency lending members, increasing by 8.0%, 8.7% and 13.6% respectively compared to the end of the previous year.

2. Main features of the foreign exchange market

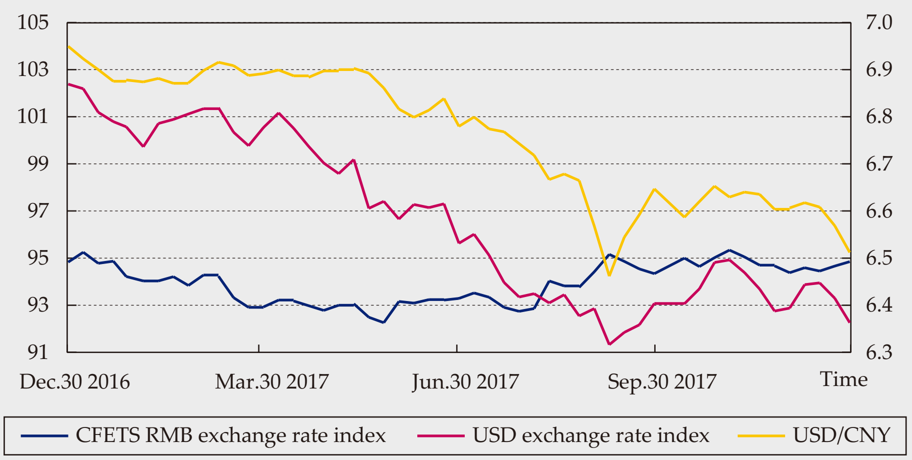
2.1 RMB appreciated against USD

In 2017, China's cross-border capital flows showed a steady rise. In the foreign exchange market, supply and demand tended to balance, the RMB exchange rate continued to appreciate, and the year-end central parity rate was 6.5342, an increase of 6.16% compared to the end of the previous year. The exchange rate closed at 6.5120, an appreciation of 6.72% compared to the end of the previous year. The factors affecting the RMB exchange rate trend in 2017 mainly include the following: first, the Fed raised rates slower than expected, and the implementation of Trump's new deal was difficult, while the recovery of other major countries' economies was gradually improved, and a smooth transition in the European election has resulted in pressure on the USD. USD depreciated 9.89% during the whole year, while the external devaluation pressure of RMB was eased. Second, under the intensified implementation of supply-side structural reforms and innovation-driven strategies, the adjustment to China's economic structure sped up, the new dynamics in the development of strategic emerging industries were enhanced, and the economy was growing steadily, which played a role in enhancing market confidence and alleviating capital outflows; laid a solid foundation for a stronger RMB . Third, construction of the Belt and Road Initiative was steadily advancing, which created a good opportunity for the RMB internationalization. With the launch of connectivity projects such as the Bond Connect and the continuous deepening of financial liberalization, the RMB exchange rate has been effectively boosted.

2.2 RMB remained stable against a basket of currencies

At the end of 2017, the CFETS RMB exchange

Figure 5.3 2017 CNY exchange rate index, CNY exchange rate against USD, and USD exchange rate index movements



Source: China Foreign Exchange Trade System & National Interbank Funding Center, Wind.

rate index was 94.85, which was roughly flat compared to the end of 2016, representing a slight appreciation of 0.02%. In general, the RMB exchange rate against a basket of currencies in 2017 remained basically stable.

Although RMB /USD bilateral exchange rate has appreciated, the international trade and investment are multilateral. The observation and analysis of exchange rate changes should also focus on trade-weighted effective exchange rates, that is, changes in RMB against a basket of currencies. Since 2017, the currency with a larger proportion in the CFETS RMB exchange rate index basket has appreciated against USD in different degrees, while other SDR basket currencies such as the euro, Japanese yen, pound sterling have appreciated by 14.15%, 3.79%, and 9.51% against USD, respectively. Korean won, Australian dollar, Singapore dollar, Canadian dollar, Russian ruble, Malaysian ringgit, Thai baht appreciated by 12.81%, 8.34%, 8.29%, 6.92%, 6.32%, 10.87%, and 9.88% respectively against USD. Thus the RMB recorded slight appreciation against USD, representing a relatively stable effective exchange rate. Since 2017, the CFETS RMB exchange rate index has generally fluctuated within a narrow range of 92~95, showing strong stability.

2.3 The "counter-cyclical" factor was introduced into the the RMB central parity rates formation mechanism, and achieved remarkable effect

The RMB central parity rate formation mechanism kept improving and achieved remarkable effect. In February 2017, the reference time period for the central parity rate to a basket of currencies was adjusted from 24 hours before the quotation to 15 hours before the quotation after the closing of the previous day, in order to avoid the day-to-day changes in the USD exchange rate being repeatedly reflected in the central parity rate of the next day. On May 26th, the Exchange Rate Working Group of the China FX Market Self-Disciplinary Mechanism decided to add "counter-cycle factor" in the central parity to adjust the quotation model to "closing rate + exchange rate movement of a basket of currencies + counter-cyclical factor".

In the calculation of "counter-cyclical" factor, first, the effect of exchange rate movement of basket currencies is excluded from the volatility of the previous day's closing rate compared with the central parity rate, getting the exchange rate movement reflecting market supply and demand, and then adjusted by the counter-cyclical coefficient, which is set by market makers based on fundamental changes and other factors. The introduction of the "counter-cyclical factor" is of great significance to the further optimization and improvement of the market-oriented RMB exchange rate formation mechanism. First, it helps to better reflect macroeconomic fundamentals. Second, it helps to hedge the procyclical fluctuations in the foreign exchange market, and makes the central parity rate fully reflect the reasonable changes in market supply and demand. Third, the improved central parity rate quotation mechanism maintains relatively high regularity and transparency.

In its operation, the new mechanism effectively restrained the herding effect in the foreign exchange market and enhanced the role of macroeconomic factors and other fundamental factors in the RMB exchange rate formation. From the beginning of the year to the time before the announcement of the new mechanism, the USD index depreciated by 5.06%, but the appreciation of RMB against USD was only 1.19%. From the announcement of the new mechanism to the end of the year, the USD index depreciated by 5.08%, while RMB appreciated by 5.46% against USD.

2.4 RMB exchange rate flexibility enhanced; spread between domestic and overseas rates narrowed

The RMB/USD exchange rate formation mechanism became more market-oriented. The RMB/USD spot weighted trading rate and the central parity rate continued to converge. In 2015, the average deviation between the two was 0.93%, which narrowed to 0.07% in 2016 and further narrowed to 0.06% in 2017.

The two-way floating elasticity of the RMB exchange rate has been significantly enhanced. The intra-day volatility of RMB/USD spot trading rate has significantly increased. The average daily volatility was 91 basis points in 2015, and expanded to 131 basis points and 174 basis points respectively in 2016 and 2017. The annualized volatility of the RMB/USD exchange central parity rate also reached 3.12% in 2017, which was higher than the annualized volatility of the CFETS RMB exchange rate index of 2.61%.

With the central parity rate becoming more market-oriented and the trading rate's elasticity increasing, the RMB exchange rates spread between home and abroad has also continued to narrow. The spread between home and abroad averaged 220 basis points in 2015 and narrowed to 153 basis points and 138 basis points respectively in 2016 and 2017.

2.5 Foreign currency lending business favored by the market

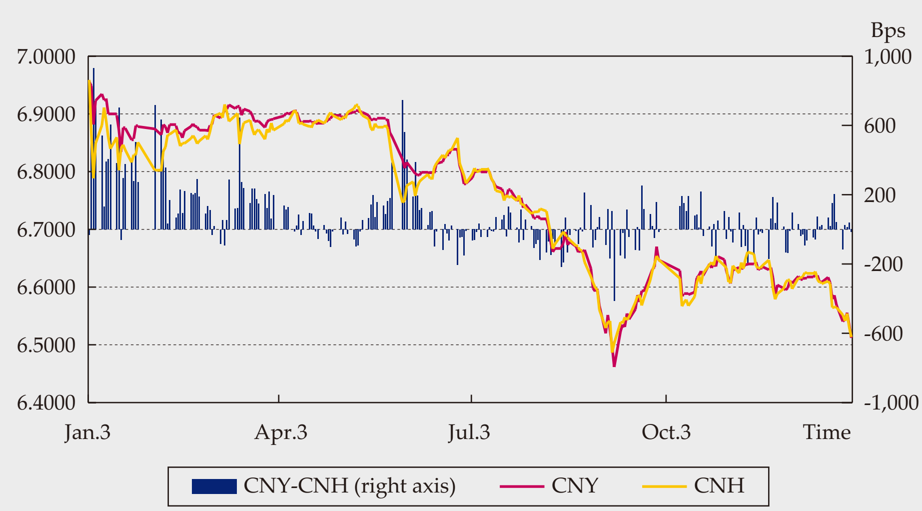
In April 2015, the CFETS launched the foreign currency lending business. In 2016, with the promulgation of the *Announcement on Relevant Matters concerning Foreign Institutions' Participation in the Foreign Currency Borrowing and Lending Business of China Foreign Exchange Trading Center* (Notice of CFETS〔2016〕No. 53), the functions of the foreign currency borrowing and lending system were optimized, and the institutions actively applied for entry into the market. The annual turnover of foreign currency borrowing and lending business was equivalent to RMB 11 trillion in 2016, while the turnover was only RMB 0.6 trillion in 2015. Since 2017, with the further optimization of functions of foreign currency borrowing and lending system, there have been more and more foreign currency lending and borrowing varieties, single-day trading volume frequently hit a record high in the market, and the annual turnover was equivalent to RMB 44 trillion, up three times year on year. At the end of 2017, there were 469 members in the foreign currency lending and borrowing market, representing an increase of 56 over the previous year.

3. Institutional construction of foreign exchange market

3.1 Foreign exchange market continued to open up

The Hong Kong settlement banks under the

Figure 5.4 RMB /USD exchange rate movements and spread between home and abroad in 2017



Source: China Foreign Exchange Trade System & National Interbank Funding Center, Wind.

Bond Connect entered the market. In July 2017, in order to coordinate with the launch of the Bond Connect, the scope of overseas participating banks was further expanded. After an overseas participating bank of the RMB Purchase and Sale Business in Hong Kong becomes a member of the interbank foreign exchange market, it will be automatically qualified as a Hong Kong settlement bank for the Northbound Trading business under the Bond Connect and could provide foreign exchange services under the Northbound Trading for overseas investors, while the resulting position can be squared in domestic interbank foreign exchange market. As of the end of 2017, there were a total of 81 overseas institutions in the interbank foreign exchange market, including 20 Hong Kong settlement banks under the Bond Connect.

The foreign exchange market supported the Belt and Road Initiative construction. In order to improve the Belt and Road Initiative development capability of financial services, help market participants avoid exchange rate risks and promote the use of RMB in bilateral trade and investment, in August and September 2017, the CFETS launched regional transactions of RMB against Mongolian tugrik and Cambodian riel in the interbank foreign exchange market, expanding the number of regional transaction currency pairs to four. In addition, from August 1st, the CFETS temporarily exempt the transaction fees of ten direct transaction currency pairs, including RMB against Singapore dollar, Russian ruble and Malaysian ringgit, thereby actively cooperating with the Belt and Road Initiative and effectively facilitating the financial support for the development of the real economy.

3.2 Trading platform kept optimizing

A new generation of foreign exchange trading platform was launched. In order to promote the development of the interbank foreign exchange market and ensure the safe, stable and efficient operation of the market, the CRETS launched a new generation of foreign exchange trading platform (CFETS FX2017) in August 2017. The first phase of the new platform has significantly improved the trading system (CFETS FX2009) in terms of transaction mode, trading efficiency and system performance, and further improving the user experience of the members. The new services for the first phase of the new platform include foreign currency lending and foreign exchange options. Other services and functions will be put into operation in the second phase of the new platform.

Services on the Internet mobile terminals were launched. In September 2017, the CFETS officially launched iTrader, an internet mobile terminal. Currently, iTrader mainly provides traders with the most timely and authoritative market and benchmark data in the interbank foreign exchange market. Traders can browse those data through the mobile application software. The Mobile Internet quote terminal is a new trend in the current international mainstream trading platform. Various trading platforms are also trying to build their own mobile applications. iTrader is a new exploration carried out by the CFETS with an attempt to adapt to the international situation and the habits of traders in the mobile Internet, and provide new services for market members through the mobile Internet.

3.3 Trading mechanism and products continued to innovate and improve

Foreign currency lending and borrowing functions were optimizated. The new platform (CFETS FX2017) launched the on-line foreign currency lending and borrowing varieties in the first phase, with more diversified trading methods, further expansion of transaction currency and more detailed market information. Foreign currency borrowing and lending transactions can simultaneously support one-to-many inquiry transactions and one-on-one negotiation transactions, and meanwhile pound and Canadian dollar borrowing and lending transactions have been added. The trading system updates the weighted average price of the dollar active period every hour, such as overnight, 1 week and 1 month. The new platform can also provide such information as the chart of the trading quotation, the chart of the party's deal scatter plot, and the summary of the borrowing and lending volume. The background management function has been further improved. Members can maintain the clearing route in a unified manner, customize clearing accounts for counterparties, and manage liquidation relationships flexibly.

The spot foreign exchange matching transaction mechanism was launched. In December 2017, the CFETS introduced USD/RMB spot matching transactions. The matching transaction is based on bilateral credit, and carried out in accordance with the principle of "price priority, time priority", and the transaction is made by means of matching orders or by clicking. A variety of order types such as limit price, market price, and iceberg are applicable in matching transactions. The matching transaction is a further enrichment of the transaction model and a further improvement of the infrastructure in the interbank foreign exchange market , thereby improving the efficiency and fairness of foreign exchange transactions, enhancing the domestic RMB exchange rate pricing power, and further deepening the opening up of the foreign exchange market. After the launch of the matching transaction, the trading system and quotation transactions ran smoothly, trading became active, and the price movement kept stable.

3.4 Post-transaction processing system further perfected

The transaction confirmation system has been further perfected. In August 2017, the message matching service was formally launched on the post-transaction processing platform, which is an important part of the transaction confirmation service system. Through this service, the SWIFT transaction confirmation message of the interbank foreign exchange market sent and received by organizations can be automatically forwarded to the CFETS. And the CFETS can feed back the matching results to the participating organizations through the post-transaction processing platform or interface. At present, China Development Bank and Export-Import Bank have effectively avoid operational risks through this service.

A simultaneous settlement mechanism was established. In October 2017, the interbank foreign exchange market established a mechanism for the simultaneous settlement of RMB/RUB transactions. Under this mechanism, the delivery of two currencies involved in foreign exchange transactions are completed at the same time, which is conducive to eliminating the deliverable risk of principal transactions, preventing trading time differences due to different trading time zones, improving the efficiency of the foreign exchange market, and further integrating with the international foreign exchange market. At present, there are over a dozen of market members participating in the business.

3.5 Institutional construction steadily advanced

Market surveillance and standardization was constantly advancing. The China Foreign Exchange Market Guidance Committee was established in 2017, which actively participated in the preparation for the establishment of the Global Foreign Exchange Commission and joined the committee as a founding member. The National FX Market Self-Disciplinary Mechanism self-disciplinary cooperated with the Foreign Exchange Market Guidance Committee in establishing a communication and exchange mechanism with the eight international foreign exchange market committees to promote the implementation of China's guidelines and global guidelines. The CFETS, together with the self-disciplinary mechanism, established a linkage and information sharing mechanism for foreign exchange market monitoring, thus strengthening the standardized operation and management of the foreign exchange market. The self- disciplinary mechanism improved the RMB central parity rate formation mechanism; formulated and issued the *Guidelines for China Foreign Exchange Market* (Notice of the China FX Market Self-Disciplinary Mechanism〔2018〕No. 5), and organized and formulated a member self-discipline behavior assessment method. The assessment results would be incorporated into the macro-prudential assessment (MPA) system.

4. Outlook of the foreign exchange market

4.1 Opening-up and services will be upgraded

On the one hand, it is imperative to actively expand the types of market participants and institutions, strengthen marketing, business promotion and peer exchanges, and introduce more eligible overseas institutions to participate in the interbank foreign exchange market; on the other hand, efforts shall be made to continue to build a global service network and improve the facilities for international financial services, improve the ability to serve global financial institutions, and facilitate the foreign institutions' participation.

4.2 Construction of the system and infrastructure will be enhanced

The second phase of the new platform (CFETS FX2017) will be advanced. The second phase will optimize bidding and inquiry trading patterns and support more order types and quotations, so that market participants can set up more flexible trading strategies. Study will be focused on introducing and establishing a domestic USD benchmark interest rate curve by meaning of combining foreign currency lending and borrowing trading rate and quotations in order to facilitate market participants in their pricing and valuation activities, and help them to enhance trading quotation ability. Foreign currency lending and borrowing confirmation will be launched soon, and the scope of currencies supported by simultaneous deliverance services will be expanded. Furthermore, cooperation with international post-transaction infrastructure providers will be promoted to further improve service quality and expand business scope.

4.3 Market surveillance and management system will be further improved

It is imperative to establish and launch a new generation foreign exchange market monitoring system to further improve the monitoring process of abnormal market trading behavior. Efforts will be made to further strengthen the linkage and coordination of the monitoring mechanism and self-disciplinary mechanism and information sharing, and improve the market management framework. The self-disciplinary mechanism will introduce appropriate self-disciplinary norms at an appropriate time, expand the coverage of the self-disciplinary mechanism, and advocate and build an orderly competitive market ethics. International communications will be strengthened to expand the participation and influence of self-disciplinary mechanism in the international foreign exchange market, and strengthen China's voice in the formulation of international foreign exchange market standards and rules.

BOX 4 Matching transaction successfully launched, and price discovery mechanism kept improving

On December 4, 2017, China's interbank foreign exchange market launched a USD/RMB matching transaction. The matching transaction is based on bilateral credit, and carried out in accordance with the principle of "price priority, time priority", and the transaction is made by means of matching orders or by clicking. A variety of order types such as limit price, market price, and iceberg are applicable in matching transactions, among which, the iceberg orders allow traders to disclose only part of the trading volume when conducting large-scale transactions and protect the traders' trading intention. Matching transactions are also subject to the requirement that the spot rate must not exceed +/-2% of the central parity rate of the current day. After *the launch of the matching transaction, the trading system operated smoothly; the quotation transaction was smooth; trading was active, and the price movement was stable.*

In the past, the interbank foreign exchange market offered two transaction modes, namely, inquiry transactions and auction transactions. Before the exchange rate reform which started in July 2005, the interbank foreign exchange market has been using the auction transaction mode. After the reform, in order to adapt to the development of the foreign exchange market, the quotation transaction mode and supplementary market maker system was introduced in 2006, which then has gradually become the main trading mode in the interbank foreign exchange market.

In recent years, the liquidity of foreign exchange spot transactions has been continuously improved and the market has gradually matured; participating organizations have a higher demand for transaction efficiency and information transparency. In the earlier period, the interbank foreign exchange market launched a matching transaction model applicable to standardized swaps and long-term products, which achieved remarkable results in improving transaction efficiency and market liquidity, and has gained market recognition. On this basis, after learning from the experience of the international foreign exchange market and synthesizing the domestic market demand, the interbank foreign exchange market launched a matching trading model in due course.

Compared with the dominant inquiry transactions, the matching transactions have the following major features: (1) In terms of the quotation method, different from the proposed price offered in the inquiry transaction, the matching transaction adopts a quotation quota model, that is what you see is what you get, and the quotation data is more detailed and comprehensive; displaying information on market stalls and the best price that can be traded; (2) In terms of the transaction method, the inquiry transaction is a quote-driven model, which requires the participating institution to select a counterparty to inquire, then the two parties negotiate the price; while the matching transaction is an order-driven model, where in all market members can provide liquidity to the market, and send purchase and sale volume orders. After the orders enter the central limit order book, the system does the matching of the orders, or the participation organization directly clicks on the stock order in the order book; and (3) In terms of the trading entities, the matching transactions are temporarily limited to spot market makers and trial market makers.

Although the auction trading rate is also generated by means of price matching, there are the following essential differences between auction transactions and matching transactions: (1) In terms of quotation, the liquidity of the bidding transaction is provided by the market maker, and the quotation has a liquidity limit; while all market members under the matching transaction may offer quotation with quota; (2) In terms of credit, under the auction transactions, the

CFETS credits the participating members in a centralized manner, and assumes the credit risk of the market traders. Matching transactions are based on bilateral credits, and the credit risk is borne by the participating members; (3) In terms of transaction parties' identities, the auction transactions are concluded anonymously, and the names of the transaction parties are not displayed on the transaction confirmation sheet; under matching transactions, the transaction parties' identities are not displayed until the transactions are concluded, which helps organizations manage risks; and (4) In terms of clearing, under the auction transactions, the participating members do the clearing in a collective and centralized manner, while the matching transactions follow the clearing model applicable in the inquiry transactions.

Table 5.1 Comparison of different transaction modes

	Matching transaction	Inquiry transaction	Auction transaction
Launch date	December 2017	January 2006	September 2001
Quotation methods	Participating organizations give quotation with quota	Market makers offer expected/proposed price	Market makers give quotation based on liquidity limit
Transaction conclusion methods	The system matches orders according to the principle of "price priority, time priority", or parties conclude transaction by clicking	Transactions are concluded through bilateral negotiation after the inquiry	The system matches orders according to the principle of "price priority, time priority", or parties conclude transaction by clicking
Credit	Participating organizations bilateral credits	Participating organizations bilateral credits	The CFETS credits the participating members in a centralized manner
Clearing methods	Bilateral clearing or centralized clearing	Bilateral clearing or centralized clearing	Centralized clearing
Trading entities	Currently limited to spot market makers and trial market makers	Spot foreign exchange market members	Foreign exchange spot auction trading members
Transaction parties' identities	Parties remain anonymous before transactions are concluded; their true identities are displayed after the conclusion of transactions; the party that submits the order first is the quoting party while the party that submits the order later is the sponsor	A real-name transaction in which the market maker is the quoting party and the counterparty is the sponsor	Anonymous transactions

Source: China Foreign Exchange Trade System & National Interbank Funding Center.

In summary, the matching transaction is a further enrichment of the transaction model in the interbank foreign exchange market and the further improvement of the infrastructure in the foreign exchange market, thereby improving the efficiency and fairness of foreign exchange transactions, enhancing the pricing power of RMB exchange rate domestically, and further deepening the opening up of the foreign exchange market. To be specific:

(1) It is conducive to improve the efficiency and

fairness of foreign exchange transactions. The matching transaction method is more efficient and more convenient. The quotation with quota shortens the consultation and negotiation process, which significantly improves the transaction conclusion efficiency. It also helps to reduce non-standard transaction behaviors, avoid transaction related disputes, and contributes to the healthy and orderly development of the domestic foreign exchange market.

(2) It helps to enhance the domestic RMB exchange rate pricing power. The matching transactions facilitate banks in satisfying transaction needs such as closing positions for their clients and the option delta hedging, which helps to improve the liquidity in the foreign exchange market, further increase the marketization of price formation, improve the price discovery mechanism in the domestic foreign exchange market, and enhance the domestic RMB exchange rate pricing power, thereby laying a solid foundation for enriching foreign exchange market participants and varieties in the mid-to-long term.

(3) It helps to deepen the opening up of the foreign exchange market. In the international foreign exchange market, the matching transaction is the mainstream transaction mode. It has obvious advantages in terms of transaction efficiency and price transparency. The matching transaction is the main transaction mode for liquid products with good liquidity in the market, such as spot foreign exchange. The foreign exchange market survey report issued by BIS in 2016 shows that in the spot market, the matching transactions of EBS and Reuters account for more than 50% transactions on the multi-bank electronic trading platform. Matching transactions are more in line with the trading habits of international investors, and are attuned to the trend that interbank market has been increasingly opened up to the outside world, which is conducive to further promoting the opening up of the domestic market.

Part VI Gold Market

In 2017, the international gold price rose, fluctuating between gains and losses, while the domestic gold market improved at a steady pace. The trading volumes of all gold products in Shanghai Gold Exchanges (SGE) and the OTC gold market of commercial banks inched upward, while the gold trading volumes slipped in the Shanghai Futures Exchange (SHFE). As access of international participants to the China gold market has improved, risk-management mechanisms have been stregnthened and the functionality of market service progressed gradually.

1. Gold market summary

1.1 Spot gold market

1.1.1 Spot gold price rose slightly, and trading volume continued to grow

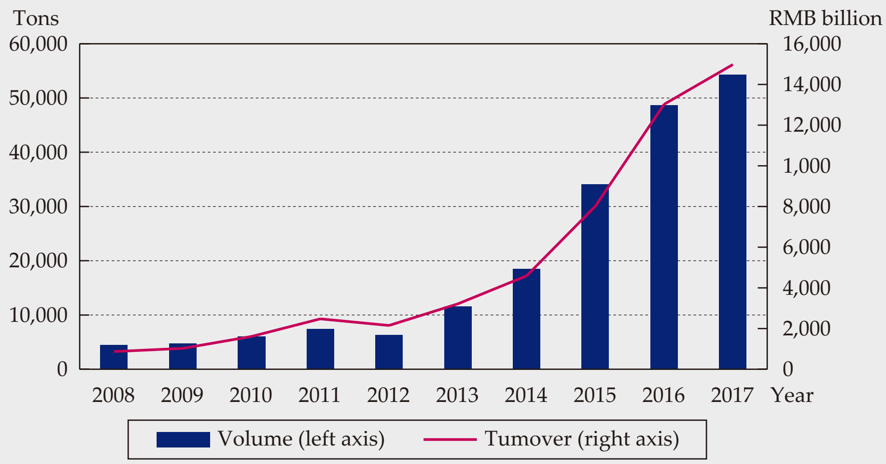
In 2017, domestic spot gold price edged up in fluctuations following the international price. The Au99.99 contract of SGE opened at RMB 264.04 per gram at the beginning of 2017; reached RMB 300 per gram at its highest, RMB 258 per gram at its lowest, and closed at RMB 273 per gram, representing an increase of 3.45% year on year. Through the whole year, the gold trading volume of SGE reached 54,291.99 metric tons, up 11.54%, with a daily trading volume of 222.51 metric tons. The trading turnover amounted to RMB 14.98 trillion, up 14.98%, accounting for 76.71% of overall turnover of all the products, up by 2 percentage points compared with 2016.

1.1.2 Matching market remained stable and inquiry market grew rapidly

In 2017, the gold matching market stayed stable with a slightly decreased trading volume. The trading volume was 30,157.29 metric tons, posting a drop of 0.85%. In particular, trading volume of physical gold products was 6,649.02 metric tons, while that of deferred products amounted to 23,508.28 metric tons, down 2.63% and 0.33% respectively.

The gold inquiry market maintained the momentum of rapid growth, while trading activity went up stably. In 2017, inquiry trading volume amounted to 22,871.95 metric tons, up by 29.28%, accounting for 42.13% of the total trading volume of SGE. Among all the products with different maturities, spot, forward and swap products reached 5,643.72 metric tons, 1,574.70 metric tons and 15,653.54 metric tons respectively, accounting for 24.68%, 6.88%

Figure 6.1 Gold trading volume and turnover from 2008 to 2017



Source: SGE.

and 68.44% of the total trading volume of the inquiry market. The proportion of forward and swap products increased gradually, contributing to the price formation of RMB-denominated gold products with both medium and long maturity.

In April of 2016, SGE launched the Shanghai Gold Benchmark Pricing Trading business. So far, the panel had 18 members that offered initial pricing. Meanwhile, 30 members participated in the business of Shanghai Gold Benchmark Pricing, including domestic commercial banks, jewelry fabrication companies, refineries, mines and international members. In 2017, the trading volume of Shanghai Gold Benchmark reached 1,262.74 metric tons; daily trading volume averaging 5.18 metric tons, and trading turnover was RMB 347.553 billion, with a daily trading turnover RMB 1.424 billion.

1.1.3 The clearing and settlement volume increased slightly, and physical delivery remained stable

In 2017, SGE cleared RMB 3.75 trillion of funds, an increase of 6.96% compared with the year of 2016. Particularly, SGE cleared RMB 2.48 trillion of funds for proprietary trading and RMB 1,270 billions for brokerage trading, representing an increase of 4.84% and 11.36% respectively.

The physical gold deposits and withdrawal remained steady. A total of 2,030.48 metric tons were withdrawn, up 3.05% compared with the previous year, while 1,947.7 metric tons of gold were deposited, down by 5.46%. On the International Board, 143.49 metric tons of gold were withdrawn, up 415.22% year on year, while a total of 110.09 metric tons of gold were deposited, down by 13.15%.

Table 6.1 Breakdown of trades in SGE gold products

Contracts	2017 Trading volume (metric tons)	2016 Trading volume (metric tons)	YoY change (%)	of total (%)
Au99.95	683.19	483.64	41.26	1.26
Au99.99	5,662.54	5,951.76	-4.86	10.43
Au100g	9.22	15.53	-40.67	0.02
Au995	1.95	—	—	0.00
iAu9999	292.12	377.87	-22.69	0.54
iAu100g	0.01	0.04	-84.00	0.00
Spot physical subtotal	6,649.02	6,828.84	-2.63	12.25
Gold deffered	18,690.49	18,371.98	1.73	34.43
Mini gold deferred	1,768.52	1,796.43	-1.55	3.26
Gold deferred of odd-number months	1,628.49	1,752.87	-7.10	3.00
Gold deferred of even-number months	1,420.77	1,665.07	-14.67	2.62
Subtotal of deffered products	23,508.28	23,586.35	-0.33	43.30
Inquiry Au9995	192.07	510.47	-62.37	0.35
Inquiry Au9999	18,647.24	14,159.32	31.70	34.35
Inquiry iAu9999	4,032.65	3,022.38	33.43	7.43
Subtotal of inquiry products	22,871.95	17,692.17	29.28	42.13
Shanghai Gold Benchmark SHAU	1,262.74	569.19	121.85	2.33
Gold total	54,291.99	48,676.56	11.54	100.00

1.2 Gold futures market

1.2.1 Domestic and overseas gold futures prices were highly correlated, while the spread between gold spot and futures expanded

The domestic gold futures price and COMEX gold futures experienced a similar trend. In 2017, the domestic gold futures contract opened at RMB 269.7 per gram; reached RMB 290.05 per gram at its highest, RMB 266.65 per gram at its lowest, and closed at RMB 277.80 per gram, an increase of 2.38% compared with the closing price of the previous year. Looking at the spread of gold spot and futures, the closing prices of gold futures in SHFE were higher than the ones of SGE gold spot Au9999 in 242 trading days, out of 244 days in total. The average spread between gold futures in SHFE and Au (T+D) of SGE increased from RMB 1.72 yuan/gram to RMB 2.53 yuan/gram, up 47.09%.

1.2.2 Domestic gold futures trading volume was down by 40%

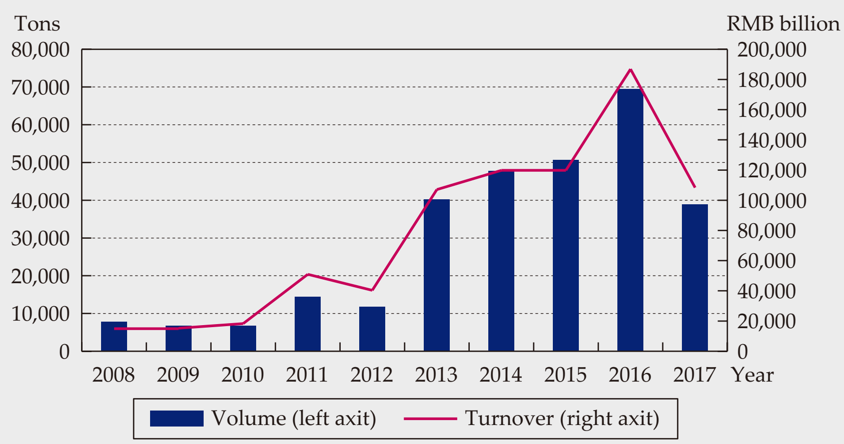
In 2017, based on bilateral figures, the trading volume of SHFE gold futures reached 38,956,200 lots (38,956.18 metric tons), down 43.96% year on year, with daily trading volume averaging 159.66 metric tons. Turnover of gold futures was RMB 10.84 trillion, down 41.99%

year on year, accounting for 6.03% of turnover of all the products in SHFE.

1.2.3 Average open interest of gold futures slipped while delivery volume increased significantly

In 2017, the average month-end open interest was 313,300 lots[1], (313.27 metric tons), a decrease of 6.28% year on year. Through the whole year, the gold futures physical delivery volume reached 6,615kg, with the value of delivery amounted to RMB 1.782 billion, an increase of 128.73% and 134.69% respectively. On average, 551.25kg of gold was delivered each month.

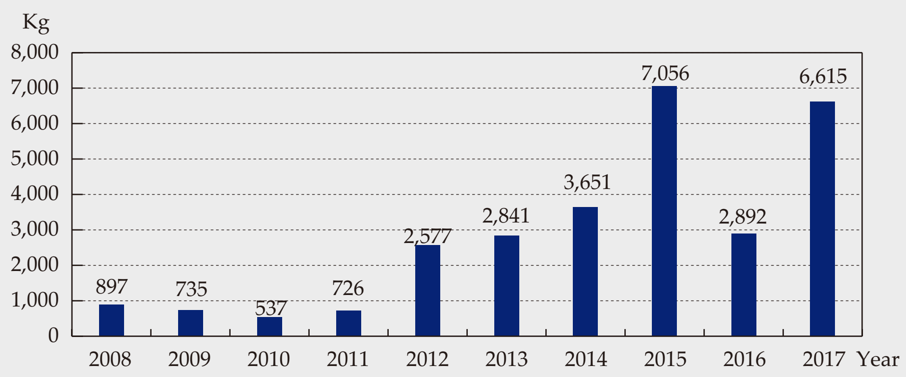
Figure 6.2 Yearly gold futures trading volume and turnover from 2008 to 2017



Note: The unit of trading volume is lots, calculated bilaterally; The unit of turnover is RMB 0.1 billion, calculated bilaterally.

Source: SHFE.

Figure 6.3 Gold futures delivery volume (kg) from 2008 to 2017



Source: SHFE.

1 Based on bilateral figures.

1.3 Overview of gold business of commercial banks

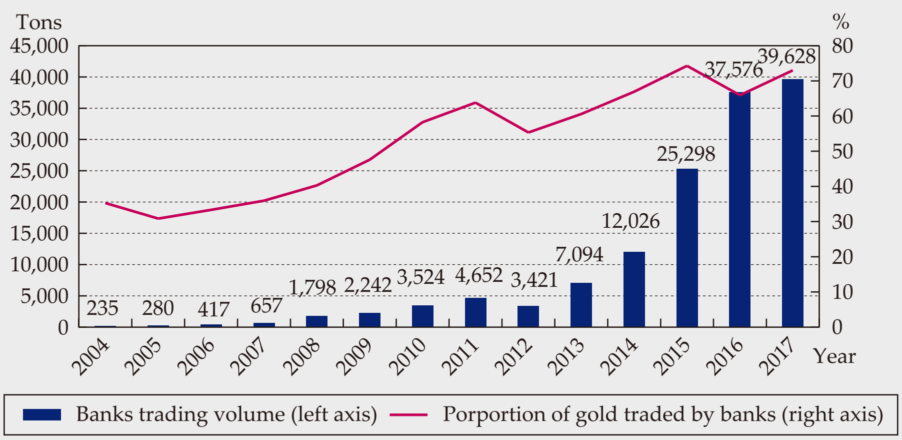
1.3.1 Commercial banks were deeply involved in all kinds of gold business of SGE

In 2017, the combined trading volume of proprietary and brokerage business of commercial banks on SGE reached 39,628[1] metric tons, with a turnover of RMB 10,925.3 billion, up 23.53% and 27.45% respectively. Gold trading by commercial banks as a percentage of total SGE trading volume increased from 65.90% to 72.99%. With regard to the market structure, the proprietary business of commercial banks was the primary business. In 2017, proprietary gold trading amounted to 33,452.12 metric tons, and brokerage gold trading was 6,175.92 metric tons, up by 28.83% and 1.02% respectively. Commercial banks were not only the major players of SGE gold matching trading business, but also the market maker of the gold inquiry business and the Shanghai Gold Benchmark trading business. In 2017, in terms of commercial banks' participation in various trading modes, their volume of gold matching volume, gold inquiry volume and gold benchmark trading volume was 16,452.87 metric tons, 22,005.85 metric tons and 1,169.32 metric tons correspondingly, representing an increase of 12.79%, 29.95% and 92.60% respectively.

1.3.2 Commercial banks' gold futures business remained stable

At end 2017, 16 commercial banks participated in the gold business of SHFE, and their total proprietary trading volume of gold futures reached 1,399.58 metric tons, down 3.38% year on year, accounting for 3.59% of the total gold futures trading volume; trading turnover was RMB 388.345 billion, at the similar level as the last year.

Figure 6.4 SGE Gold products trading volume and proportion traded by commercial banks (metric tons, %)



Source: Monitor and Analysis Database of China Gold Market.

1 There is a statistic caliber modification from 2016.Since 2017, regarding trading volume of commercial banks, we only calculate data from bank members of SGE, excluding non-bank financial members.

1.3.3 The overall domestic proprietary gold business improved

In 2017, commercial banks traded 8,073.63[1] metric tons of gold in the OTC market, up 5.5% year on year. In particular, gold wealth management and domestic gold derivatives business grew rapidly while the account gold business grew modestly; the physical gold sales and gold leasing trading declined.

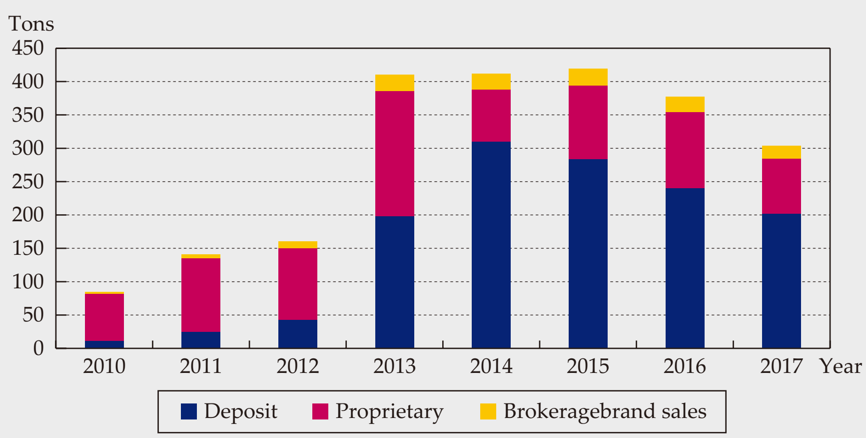
1.3.3.1 Physical gold sales slightly decreased

In 2017, physical gold sales of commercial banks were 304.01 metric tons, down 19.43%, and sales turnover reached RMB 88.98 billion, down 16.84%. In particular, proprietary brand sales reached 82.71 metric tons, down by 27.13%, brokerage brand sales posted 19.45 metric tons, down 15.84%. Additionally, gold deposit (automatic investment plan of gold) sales reached 201.85 metric tons, down 16.14%. From 2013 to 2015, the volume of physical gold sales expanded due to gold price decline. However, the volume of physical gold sales fell year by year with the rallying of gold price in the recent two years.

1.3.3.2 The trading volume of account gold grew slightly

In 2017, a total of 9 commercial banks participated in the account gold business, their trading volume reaching 2,130.81 metric tons and trading turnover RMB 583.510 billion, representing an increase of 1.34% and 3.49% respectively. In particular, the trading volume of USD-denominated account gold and RMB-denominated account gold were 179.62 metric tons and 1,951.19 metric tons, down by 15.70% and 3.26%, respectively. By the end of 2017, the physical gold reserve in SGE amounted to 32 metric tons, and the reserve rate was 22.57%.

Figure 6.5 Commercial banks physical gold sales volume from 2010 to 2017



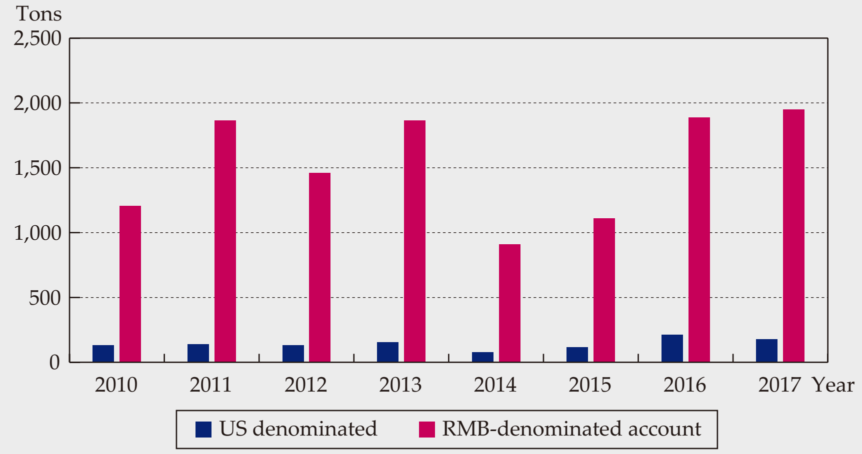
Source: Monitor and Analysis Database of China Gold Market.

1 Account gold, physical gold and all domestic gold derivatives are calculated bilaterally. Gold pledge and gold leasing are calculated unilaterally.

1.3.3.3 Gold leasing business dropped slightly

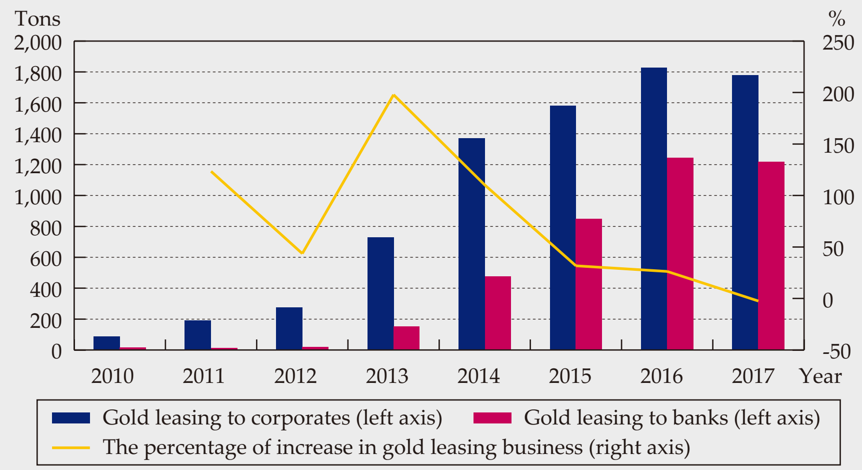
Gold leasing business consists of two parts, i.e. interbank gold leasing, and gold leasing from commercial banks to corporate clients. In 2017, commercial banks leased 2,994.65 metric tons of gold on a cumulative basis, down 2.47%, equivalent to a notional value of RMB 826.859 billion, an increase of 1.14%. In particular, commercial banks leased 1,778.05 metric tons of gold to corporate clients, down 2.72% year on year, and leased 1,216.60 metric tons of gold to interbank clients, a decline of 2.09%. At the end of 2017, the balance of gold leasing business was 2,556.36 metric tons, up 20.03%.

Figure 6.6 Yearly commercial bank account gold trading volume from 2010 to 2017



Source: Monitor and Analysis Database of China Gold Market.

Figure 6.7 Yearly commercial bank gold leasing business from 2010 to 2017



Source: Monitor and Analysis Database of China Gold Market.

1.3.3.4 Gold pledge business shrank by a large margin

In 2017, four commercial banks participated in the gold pledge business, including state-owned banks and two rural banks. Commercial banks received 0.83 metric tons of pledged gold, down by 75.64%.

1.3.3.5 Sales of gold wealth management products surged

In 2017, nominal principal value of various gold-based wealth management products sold by commercial banks was RMB 1,248.572 billion, up 113.45% while RMB 1,065.482 billion gold-related wealth management products were redeemed at maturity, up 107.43%. At the end of 2017, the balance of outstanding gold-based wealth management products was RMB 334.985 billion, rose by 114.52%.

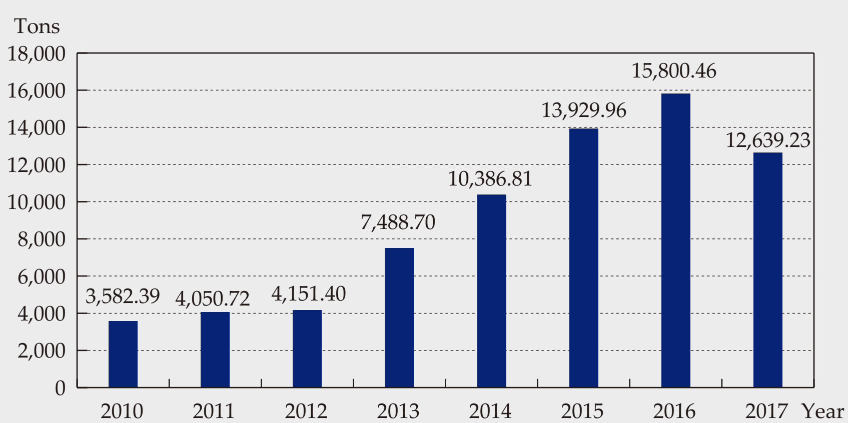
1.3.3.6 Domestic gold derivatives trading volume grew rapidly

In 2017, the trading volume of OTC gold derivatives by commercial banks was 2,437.71 metric tons, up by 32.89% year on year. In particular, gold forward trading reached 1,294.27 metric tons, gold swaps trading was 1,119.30 metric tons, gold options trading amounted to 24.15 metric tons, an increase of 5.91%, 87.64%, and 52.92% respectively. In terms of currencies, the trading volume of gold derivatives quoted in RMB amounted to 1,174.24 metric tons, and that quoted in USD reached 1,263.47 metric tons, increasing by 41.25% and 25.96% respectively year on year.

1.4 Overseas gold trading by commercial banks has decreased mildly

In 2017, China's commercial banks traded 12,639.23 metric tons of gold through different overseas gold trading channels, in a total turnover of USD 511.470 billion, a decline of 20.01% and 19.32% respectively. Overseas gold swap trading amounted to 7,645.01 metric tons, down 26.66%. Overseas forwards trading

Figure 6.8 Overseas gold business of commercial banks from 2010 to 2017



Source: Monitor and Analysis Database of China Gold Market.

was 1,308.80 metric tons, a decline of 16.31%. Overseas gold futures trading was 77.95 metric tons, recording a drop of 47.37%. Overseas gold options trading amounted to 0.16 metric tons, down 92.17%. Overseas gold options trading volume amounted to 3,447.80 metric tons, down 5.87%. From the perspective of market structure, gold forwards accounted for 10.36% of the total gold derivatives trading business, while gold swaps made up 60.49%. The trading volume of overseas spot gold accounted for 27.28% of all, increased by 4 percentage points compared to last year.

2. Main features of the gold market performance

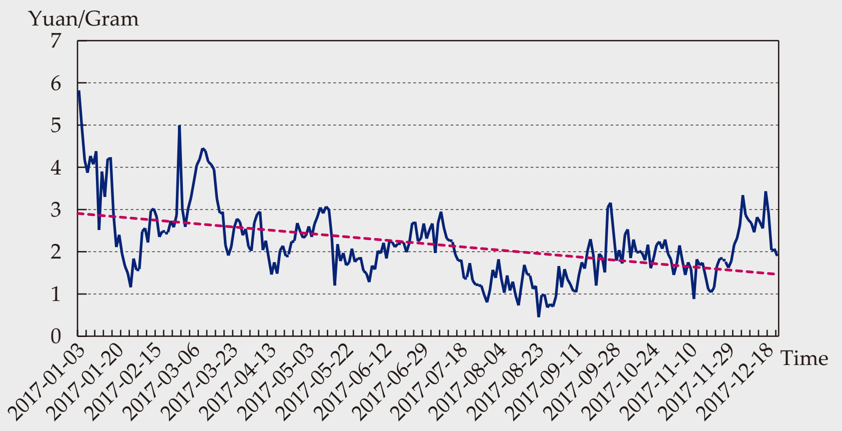
2.1 Average spread of domestic-international gold prices increased but fluctuation of the spread decreased

Since the start of the year, international gold price fluctuated and rallied from USD 1,148.7 per ounce, hitting a yearly high of USD 1,350.9 per ounce on September 8, and then the price fell back. At the end of year, international gold price closed at USD 1,296.5 per ounce, an increase of 11.85%, which is higher than the 3.45% of increase in domestic spot price.

The spread among domestic gold spot price, gold futures price and international price widened in 2017. Average price spread between SGE spot price and London gold price increased by RMB 0.72 per gram or 49.32% to RMB 2.18 per gram. Average spread between SHFE and COMEX was up 54.8% from RMB 2.78 per gram to RMB 4.22 per gram.

The fluctuation of domestic-international spread experienced a narrowing down trend during the year. Domestic-international spot price spread shrank from RMB 5.82 per gram to RMB 1.9 per gram, while domestic-international futures price spread declined from RMB 10.69 per gram to RMB 3.63 per gram.

Figure 6.9 Amplitude of domestic-international spot gold spread in 2017



Source:SGE.

2.2 Growth of trading on global major gold markets moderated

In 2017, total trading volume of gold products on SGE increased by 11.54%, a deceleration of 31.34 percentage points from the increase of 42.88% in 2016. Trading volume of gold futures on SHFE, TOCOM, and MCX was down 43.96%, 24.52%, and 44.67% respectively, while growth of gold market in UK and US moderated. The LBMA cleared 161,560.91 metric tons in 2017, down 5.27% in contrast to the growth of 9.38% in 2016. Total trading volume of gold futures products on COMEX increased 25.95% to 225,771.44 metric tons in 2017, 11.7 percentage points lower compared with an increase of 37.65% in 2016.

2.3 Gold trading from mobile devices gained momentums

With the development of Internet Technologies, more and more financial institutions began to sell gold products through the internet. The SGE launched its first mobile Application (SGE Gold App) in December 2015, providing individual investors easier access to gold trading through mobile devices. In 2017, total turnover generated from SGE Gold App increased 415% year on year to RMB 653.6 billion, and over 75 thousands individual investors opened accounts from the App, an increase of 152% year on year. Moreover, strategic agreements were reached between China Construction Bank and Alibaba, between Bank of China and Tencent, between ICBC and JD, between the Agricultural Bank of China and Baidu, between Bank of Communications and Suning, Suning Finance in 2017. Under the precondition of risk management, the commercial banks made use of internet technology and introduced Apps that supported account gold, physical gold products and gold-based wealth management products on mobile devices, and provided to clients gold investment channels with more comprehensive and timely information and convenience in trading.

2.4 Accelerated development of gold wealth management and domestic gold derivatives business

In 2017, 10 commercial banks offered different kinds of gold-based products, which generated total nominal principals of RMB 1.2 trillion, up 113.45% year on year. At the end of year, the balance of outstanding gold wealth management products was RMB 334.9 billion, up 114.52% from last year.

The principal of gold wealth management products are mainly invested in bond market and money market, only a small part is used for the structural operation of gold-based products. The ROI (return on investment) depends on the performance of the chosen gold-based product, including gold spot, international gold price, gold ETF, and etc. Because the structural part of gold wealth management business focused on gold-based financial instruments, rather than direct investment in physical gold, and the risk must be hedged by using gold forwards and gold swaps products. To some extent, these products contributed to the growth of trading of the domestic gold derivatives. From interbank gold inquiry trading platform, total trading volume of gold derivatives products rose by 52.84% to 14,534.02 metric tons, accounted for 98.86% of total gold inquiry market. From the perspective of commercial bank gold inquiry market, accumulated volume of gold derivatives products amounted to 2,437.71 metric tons, rose by 32.89%.

3. Systems and infrastructure building of gold market

3.1 Practically managing transaction risks and preventing the occurrence of systemic risks

Administrative rules on risk control have been revised to strengthen the tracking and analysis of market indexes such as open interests, and to improve risk management quantitative analysis to support decision making.

Risk monitoring system has been improved by adding several risk management indicators, risk measurements, stress testing functions and various risk warning approaches. Abilities of risk prevention have also been strengthened by reinforcing monitor and warning of daily trading, achieving daily risk monitors and investigations and analyzing and troubleshooting risks in timely manners. SGE also improved safety and timeliness of margin managements by conducting survey on margin management among members and exploring the way to establish centralized monitoring system for customer's margins.

3.2 Strengthening management of VAT special invoices and building the anti-money laundering (AML) mechanism

The SGE has closely cooperated with state tax, public security, and auditing authorities in their inspection works and enhanced key process managements in account opening, trading activities, physical delivery and invoicing, denied access of enterprises which do not have real physical demands to the SGE market for activities as trading, delivery, and invoices collection. Meanwhile, the SGE started to build a VAT-related management information system to prevent tax-related criminal behaviors. Also, the SGE carried out many specific works related to anti-money laundering in precious metals business, including establishing an AML leading group and enacting respecting measurements for AML efforts.

3.3 Enhancing day-to-day membership management and protecting rights and interests of investors

The SGE endeavored to establish a long-term membership management mechanism, which is used for evaluating such indicators as members' creditworthiness, operating capacities, and compliance standards. The SGE conducted a review on OTC business of its members, initiated conversation by appointment and window guidance, and prohibited over-sales activities. SGE also provided suggestions to regulatory authorities by conducting a survey on Internet-based gold businesses, by screening risks and exploring self-discipline guidance for the industry. The SGE also put great emphasizes on investors protection, properly handling different kinds of disputes and complaints through customers intermediation mechanism.

3.4 Standardizing gold leasing business and optimizing business structure

SGE has enacted Measures for Gold Leasing Business under principles of prudent guidance, risks prevention, serving real economy, and mass-based controls to guide commercial banks to serve real economy by using such business through approval of step-by-step transfers. Under market circumstances of mass-based control and allowance dual control in leasing business, overall leasing volume made from enterprises have levelled off.

4. The opening-up of china's gold market

4.1 The international board of SGE performed well, cross-border settlement ran orderly

Since the launch of the international board of SGE in September 2014, international members have actively participated in the market. Their trading volume steadily increased and the international business expanded at a steady pace.

Since its establishment, the international board posted a cumulative trading turnover of RMB 3.62 trillion, including 13,754.4 metric tons of gold products in RMB 3.58 trillion, and 12,062.14 metric tons of silver products, valued at RMB 46.23 billion.

In 2017, a total of 12,200 metric tons of bullion was traded through the international board, an increase of 75.94% on a year on year basis, with a total trading turnover of RMB 1.34 trillion. In particular, the trading volume of gold reached 4,776.98 metric tons, a year on year growth of 19.67 percent, with the trading turnover registering RMB 1.31 trillion, up by 21.71 percent from a year earlier. At the end of 2017, the SGE had 69 international members who served as agents for 71 international customers to participate in the SGE market. International members included major international gold refineries, LBMA gold benchmark participants, major precious metals trading institutions, and free trade zone branches of domestic commercial banks. The total trading volume of all international members was RMB 553.3 billion in 2017, accounting for 41.38% of the total trading volume of the international board. A total of 147 Free Trade bank accounts and 29 overseas bank accounts were opened by the international members with the designated settlement banks. The net clearing volume and the cross-border fund transfer volume were RMB 47.16 billion and RMB 45.06 billion respectively in 2017, with the net fund transfer abroad reached RMB 29.44 billion (transfer within Free Trade bank accounts included).

4.2 Cooperation with the international exchanges was further deepened in response to the Belt and Road Initiative

The SGE actively responded to and implemented the national Belt and Road Initiative, and made efforts to promote the coordinated development of gold markets in countries and regions along the Belt and Road Initiative. First, cross-border cooperation was developed through multiple forms and platforms to provide diversified investment channels for domestic and foreign investors. In 2017, a memorandum of gold market cooperation was signed with Russian counterparts. Second, cross-market partnership was advanced to explore a new mechanism for cooperation, sharing, and win-win development. On May 13, 2017, a strategic cooperation agreement was signed between the SGE and the Budapest Stock Exchange on the occasion of the Belt and Road Forum for International Cooperation, with an aim to jointly promote sound and orderly development of gold markets in both countries. Third, the use of the "Shanghai Gold" benchmark price was further expanded in overseas markets to enhance the influence of Shanghai Gold. On April 9, 2017, the Dubai Gold and Commodity Exchange (DGCX) listed the RMB-denominated gold futures contract with the "Shanghai Gold" benchmark price as its settlement price. The contract-based products has been traded smoothly since its listing and the trading volume has steadily grown. As of the end of 2017, a total of 34,518 lots (approximately 34.5 metric tons) were traded. Fourth, potential markets were further tapped to explore new ideas for the development of gold markets along the Belt and Road regions.

5. Gold market outlook

The year 2018 is the start of the implementation of the spirit of the 19th CPC National Congress and also marks the 40th anniversary of the Reform and Opening-Up of China. In line with the program of deepening reform of China (Shanghai) Pilot Free Trade Zone, China's gold market will focus on improving areas of weakness and enhancing advantages to further deepen the building of the SGE international board, improve the "Shanghai Gold" benchmark price, and promote the sound development of a multi-layered gold market so as to better serve the real economy and promote the integration of China's gold market into the global market. In addition, steps will also be taken to strengthen business connectivity and cooperation with countries and regions along the Belt and Road Initiative, and further enhance the influence of RMB-denominated gold price.

Part VII Insurance Market

The insurance industry operated generally stable in 2017. In particular, risk protection enhanced; structure of insurance products optimized, return of asset management steadily improved; risk prevention capability of the insurance industry increased markedly; opening-up deepened constantly, and the ability of serving the real economy was further strengthened.

1. Market performance of insurance market

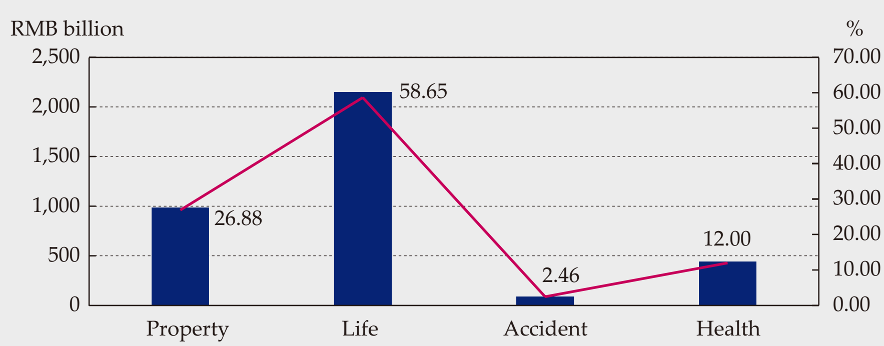
1.1 Primary premium income

In 2017, China's insurance industry achieved premium income of RMB 3.66 trillion (up 18.16%, year on year). Property, life, accident, and health accounted for 26.88%, 58.65%, 2.46%, 12.00% respectively. From 2013 to 2016, primary premium income recorded RMB 1.72 trillion (up 11.20%, year on year), RMB 2.02 trillion (up 17.49%, year on year), RMB 2.43 trillion (up 20.00%, year on year), RMB 3.10 trillion (up 27.50%, year on year), in particular, that of property insurance companies increased by 17.20%, 16.41%, 11.65%, and 10.01% respectively; while that of life insurance companies increased by 7.86%, 18.15%, 24.97% and 36.78% respectively.

1.2 Claims and payments

In 2017, Insurance Company paid RMB 1.12 trillion in claims and payments (up 6.35%, year on year), of which property accounted for 45.50%, life 40.92%, health 11.58%, and accident 2%. From 2013 to 2016, claims and payments of the insurance industry recorded RMB 621.29

Figure 7.1 Primary premium income structure in 2017



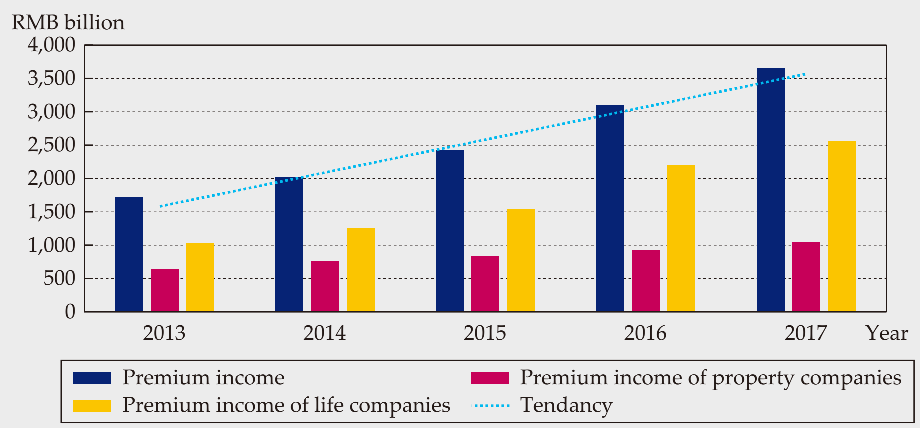
Source: the China Insurance Regulatory Commission (the CIRC) .

billion (up 31.73%, year on year), RMB 721.62 billion (up 16.15%, year on year), RMB 867.41 billion (up 20.20%, year on year), and RMB 1,051.29 billion (up 21.20%, year on year) respectively.

1.3 Insurance assets

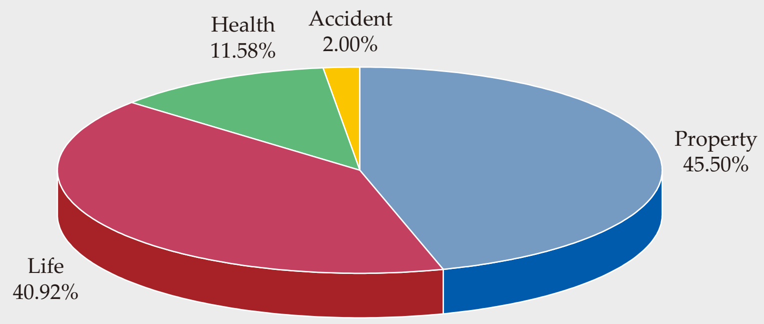
In 2017, total assets of the insurance industry achieved RMB 16.75 trillion, increased by 10.80% compared to the beginning of the year, with that of the property insurance companies, life insurance companies, reinsurance companies, asset management companies accounting for 15.55% (up 5.28%), 82.19% (up 6.25%), 1.96% (up 14.07%), and 0.31% (up 15.28%) respectively. From 2013 to 2016, assets of the insurance industry totaled RMB 8.29 trillion (up 12.70%, year on year), RMB 10.16 trillion (up 22.57%, year on year), RMB 12.36 trillion (up 21.66%, year on year), and RMB 15.12 trillion (up 22.31%, year on year) respectively.

Figure 7.2 Primary premium income from 2013 to 2017



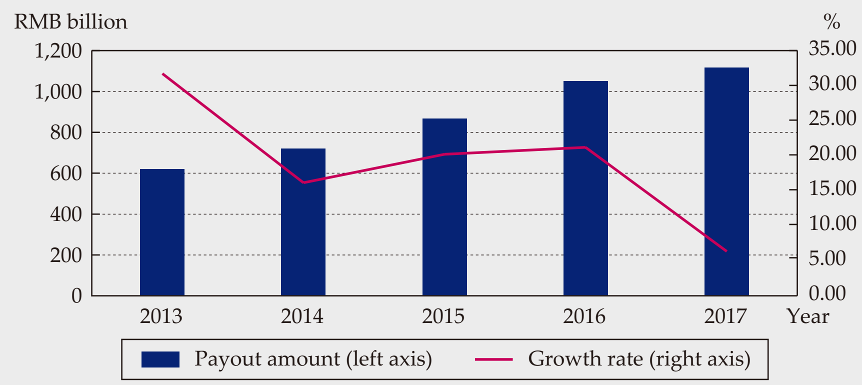
Source: the CIRC.

Figure 7.3 The structure of claims and payments in 2017



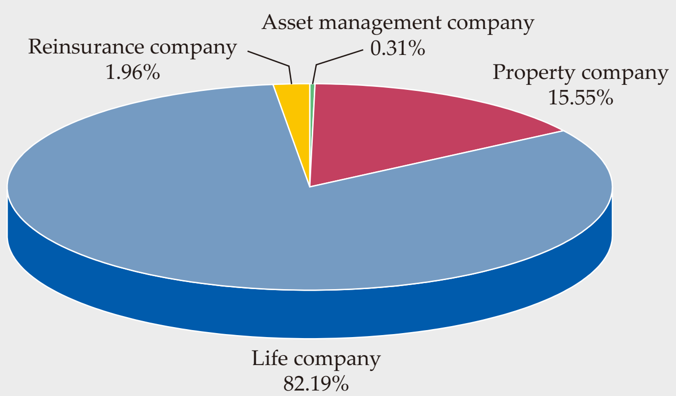
Source: the CIRC.

Figure 7.4 Claim and payments from 2013 to 2017



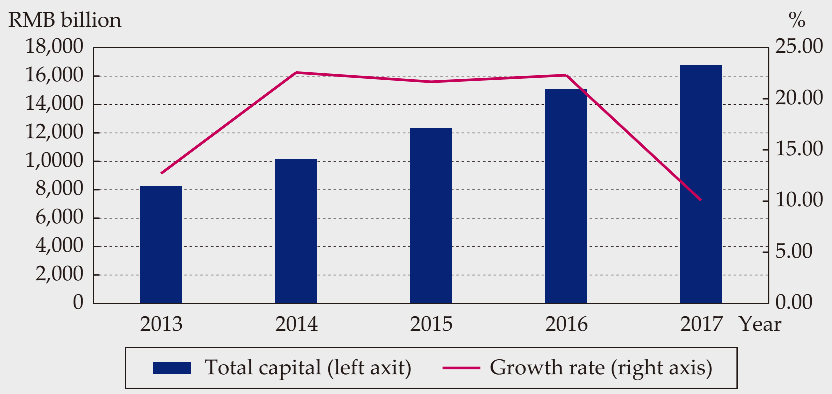
Source: the CIRC.

Figure 7.5 The structure of total assets in insurance industry in 2017



Source: the CIRC.

Figure 7.6 Total assets of the insurance industry from 2013 to 2017



Source: the CIRC.

2. Main characteristics of the insurance market

2.1 Insurance business grew steadily and risk protection level increased fast

In 2017, the insurance market maintained relatively fast growth, however, the growth rate slowed down, which was 9.34 percentage points lower than that of last year. In terms of lines of business, primary premium income of property insurance reached RMB 983.47 billion (up 12.72%, year on year), 3.60 percentage points higher than that of last year. Liability insurance and agricultural insurance directly concerning national stability and our people's well-being both maintained rapid growth, whose premium income recorded RMB 45.13 billion (up 24.54%, year on year) and RMB 47.91 billion (up 14.69%, year on year) respectively. Life insurance slowed down, with a premium income of RMB 2.67 trillion, increasing by 20.29% year on year, 16.22 percentage points lower than that of 2016, including RMB 2.15 trillion (up 23.01%, year on year) for life insurance, RMB 438.95 billion (up 8.58%, year on year) for health insurance, RMB 90.13 billion (up 20.19%, year on year) for accidental insurance. In 2017, risk prevention by the insurance industry totaled RMB 4,154 trillion (up 75%, year on year), including RMB 169.12 trillion (up 26.51%, year on year) for auto insurance, RMB 251.76 trillion (up 112.98%, year on year) for liability insurance, RMB 31.73 trillion (up 59.79%, year on year) for life insurance, RMB 536.80 trillion (up 23.87%, year on year) for health insurance. In 2017, the accumulated new policies of life insurance totaled 111 million, a net increase of 73 million, up by 192.11%.

2.2 Business structure continued to adjust; transformation of business structure bore initial results

For life insurance companies, in terms of the business structure, life insurance accounted for 47.2% of the total insurance premium, 11.1 percentage points higher than that of 2016. Universal insurance accounted for 19.95%, 16.9 percentage points lower than that of 2016. Participating insurance accounted for 31.05%, 7.3 percentage points higher than that of 2016. In terms of new policies, primary premium income of new policies reached RMB 1.54 trillion (up 10.66%, year on year), including RMB 577.22 billion (up 35.71%, year on year) for regular policies, accounting for 37.59% of the total new polices premium, 6.94 percentage points higher than that of 2016. In terms of distribution, the primary premium income was RMB 1.31 trillion by means of individual agents, accounting for 50.18% of total life business, 4.00 percentage points higher than that of 2016. The primary premium income was RMB 1.06 trillion by means of bancassurance, accounting for 40.65% of total life business, 3.50 percentage points lower than that of 2016. For property companies, auto insurance benefited from macro economy improvement and positive fiscal policies. The primary premium income of the auto insurance reached RMB 752.12 billion (up 10.04%, year on year). The primary premium income of non-auto insurance reached RMB 302.03 billion (up 24.21%, year on year, 14.08 percentage points higher than the growth of auto insurance), accounting for 28.65% of the total property business, 2.41 percentage points higher than that of 2016.

2.3 Insurance asset investment structure optimized and the return of asset management steadily increased

In 2017, the amount of asset management totaled RMB 14.92 trillion, up by 11.42% from the beginning of the year. The investment on fixed income products was RMB 7.09 trillion, representing 47.51% of total, 3.19 percentage points lower than that of 2016, that of Stocks and securities investment funds standing at RMB 1.84 trillion, representing 12.30%, 0.98 percentage points lower than that of last year, and that of long term equity investment standing at RMB 1.48 trillion, representing 9.90%, 3.51 percentage points higher than that of last year. The return of the whole industry reached RMB 835.21 billion (up 18.12%, year on year), representing a rate of return of 5.77%, 1.11 percentage points higher than that of last year. The investment return on bonds and stocks reached RMB 208.70 billion (up 11.07%, year on year) and RMB 118.40 billion (up 355.46%, year on year) respectively.

2.4 The capability of serving economic and social development strengthened while prioritizing the national strategy

In 2017, the insurance industry worked hard to support key areas and weak links of economic and social development, promote technology innovation, safeguard social stability, and upgrade the efficiency and level of insurance industry serving the real economy. Progress was made in battles to eradicate poverty. At end-December, 213 million farmer families were included in agricultural insurance with total risk coverage of RMB 2.79 trillion, up by 29.24% year on year; with a claim payment of RMB 33.45 billion, an increase of 11.79% year on year. 473.7 billion families under poverty or disaster were benefited, representing an increase of 23.92%. From the aspect of serving the real economy, outstanding time deposits in the insurance industry exceeded RMB 1.34 trillion, which was an important source of medium and long-term loans for the real economy. Direct financing for the real economy from bonds and stocks exceeded RMB 7 trillion, an increase of 15.00% from the beginning of the year. The insurance investment on the construction of the Belt and Road Initiative reached RMB 856.83 billion. The insurance investment on supporting the Yangtze economic belt and on the coordinated development strategy of Beijing-Tianjin-Hebei reached RMB 365.25 billion and RMB 156.80 billion respectively. The investment on green industry including clean energy, resource conservation and pollution prevention reached RMB 667.64 billion. Science and technology insurance protecting science and technology innovation totaled RMB 1.19 trillion. The first key technology equipment insurance provided risk protection of RMB 82.17 billion. The number of insurance agents continued to grow rapidly. As of end-2017, the number of insurance agents reached 8.07 million, an increase of 22.77% over the beginning of the year.

3. Insurance market innovation

3.1 The innovation of insurance product and service

3.1.1 Deeply expanding pilot projects on catastrophe insurance products

To improve the protection on catastrophe risk, the insurance industry promoted the research and development pilot on catastrophe insurance products. The first agriculture typhoon catastrophe index insurance was launched in Shanghai, realizing accurate evaluation on catastrophe risks and pricing of premium rate. The pilot project on the agricultural fiscal catastrophe index insurance was first carried out in Heilongjiang province, extending catastrophe insurance to agricultural poverty alleviation area to meet their insurance needs.

3.1.2 Introducing first comprehensive insurance for network information security

The first comprehensive insurance for network information security was launched, covering the loss of digital assets caused by harmful programs, network attacks and information destruction, as well as direct economic losses of the third party caused by digital assets leakage. Customers may choose customized insurance plan based on their own situation. The maximum amount insured is up to RMB 3 million.

3.1.3 Launching various index insurance products

In order to promote boosting agriculture and benefiting farmers, various index insurance products were launched in different areas. Weather index insurance of cherry was launched in Yuyao of Ningbo City, with the first pilot area of 3,000 acres, the insurance coverage and premium per acre were RMB 2,000 and 240, with a total of RMB 6 million provided for risk prevention. Weather index insurance of snowfall for Tibetan sheep and yaks was launched for pilot in Maqin County, Guoluo Prefecture of Qinghai Province, preventing more than 30,000 yaks and 20,000 Tibetan sheep from snow disaster. In addition, combining with the needs of agricultural development, innovative products including shelter typhoon index insurance, pomelo price index insurance, crayfish weather index insurance and plantation rainfall index insurance were introduced to guarantee farmer’s income and help them to resist agricultural risks.

3.1.4 Innovating insurance clauses and service mechanism

In 2017, resources were integrated for the insurance industry to provide all-stage insurance protection for the trial flight of the domestically-produced C919 large aircraft, with the risk prevention amounting to RMB 4.33 billion and premium of RMB 18 million during each stages of installation and trial test, covering all risks of installation and the third-party liability during the manufacturing stage, as well as all risks of the flight, testing of equipment, the third-party liability and accidental insurance for personnel on the flight during the stage of trial flight. Furthermore, insurance and protection were sufficiently provided for the trial flight of six C919 large aircrafts during the next three years, with the insurance liability covered the whole process of the initial flight, system test and integrated experiment of the onboard system.

3.1.5 Innovating a mode of poverty alleviation by the insurance industry

In order to implement national poverty alleviation strategy, China's insurance industry explored poverty alleviation mechanism, fulfilled social responsibility, created the model of "SHIE plus Targeted Poverty Alleviation" to convert poverty alleviation funds into insurance protection for poverty population. Besides, return-to-poverty liability insurance was introduced for pilot to prevent insured people from returning to poverty due to diseases, disasters, accidents and education, etc., with the claim at the level of local per capita disposable income of the year, so as to ensure the per capita disposable income of people lifted out of poverty no less than the local average level. In addition, combined with local needs for poverty alleviation, insurance projects including life accidental insurance were introduced in border area villages of Yunnan Province, which provided all-round risk prevention for the production, living, medical care and education of poverty population.

3.2 The innovation of insurance exchange

3.2.1 Introduce "SHIE plus Targeted poverty alleviation" mode to implement national poverty alleviation strategy

SHIE actively responded to the national poverty alleviation policy and assisted targeted poverty alleviation strategy by introducing innovative model of "SHIE plus Targeted poverty alleviation" that cooperated with local governments, charities, banks and insurance companies. SHIE made full use of its platform and professional advantage to achieve resource integration and complementary advantages between different industries and entities by forming innovative poverty alleviation mechanism. This mechanism changed poverty alleviation from isolation to cooperation and precision. By the end of 2017, 4 projects were completed and achieved total sum insured of RMB 38.7 billion for more than 560,000 people in poor and rural areas with premium of only RMB 11.9 million.

3.2.2 Optimize the "SHIE plus Insurance Pool" model to promote catastrophe insurance coverage

After the China Residential Earthquake Insurance Pool Platform was launched in 2016, SHIE created the "SHIE plus Insurance Pool" innovative model. It improved the accessibility of catastrophe insurance by enabling customers to insure themselves through Wechat and APP. The platform had completed 93,000 deals and achieved total sum insured of RMB 106.6 billion for more than 2.5 million households by the end of 2017.

3.2.3 Build innovative concentrated settlement mode for insurance industry

SHIE officially launched property co-insurance transaction settlement platform in December 2017.The platform opened a new chapter of settlement between insurance institutions for

Chinese insurance industry. It is an innovative platform that could provide matchmaking, statistics clearing, fund settlement, information inquiry between insurance institutions. In addition, the platform achieved standardization and centralization of co-insurance settlement, providing efficient and fair settlement for insurance companies. The first co-insurance projects included "Ningbo Rail Transit Line 5 and Ningbo-Fenghua Intercity Railway Insurance Project" "State Grid Corporation of China Distributed Photovoltaic Insurance Project" " The East China Sea and West Lake Operating Insurance Project".

3.2.4 Achieve big progress in Fintech through launching Blockchain platform——"Insurance Exchange Chain"

On March 28, 2017, SHIE successfully completed secured data transition Proof-Of-Concept project enabled by Blockchain technology. 9 insurance companies participated. 10 blockchain nodes formed a consortium blockchain. This project verified the feasibility of blockchain technology in insurance fraud reduction area from 4 dimensions including functionality, performance, security and operation. On September 1, 2017, SHIE launched blockchain technology platform "Insurance Exchange Chain" and published "Insurance Exchange Chain technology white paper". SHIE is targeting to provide blockchain infrastructure in insurance industry using Insurance Exchange Chain as the underlying blockchain technology platform. This leading-edge technology can rebuild insurance exchange ecosystem with an efficient, stable and secured connection across all participants.

3.2.5 Establish and promote the Health Insurance Exchange Platform to improve people's wellbeing

The Shanghai Municipal Government issued *The Plan for Healthy Shanghai 2030* and it stated that "In order to support the development of commercial insurance and help commercial insurance to fully play its role of supporting health management, taking SHIE as a platform to promote the integration of various resources including commercial insurance, medical services and health data." SHIE and Shanghai Municipal Commission of Health and Family Planning convened a working conference on August 30,2017. The conference aimed at planning and constructing Shanghai Health Insurance Exchange Center. To promote the establishment of this platform, SHIE fully played its role of the insurance industry infrastructure and integrated service platform to construct the platform by cooperating with local government.

3.3 Innovation of insurance technology

Insurance technology investment was raised rapidly in 2017. Frontier technologies such as big data, AI, blockchain, mobile internet, IOT were widely applied to insurance product innovation, insurance marketing and internal management. Thanks to internet insurance product substitution of some standardization traditional product and the incremental market brought by scene innovative product, internet insurance increased at a stable rate. In 2017, the number of online insurance policies increased by 102.6% to around 12.5 billion. Among them, the amount of sales return insurance policies took up 6.8 billion and rose by 51.91%. The amount of guarantee insurance policies was 1.66 billion at a growth rate of 107.45%. As for liability insurance, it increased by 438.25% to about 1 billion. Additionally, accident insurance policies surged to1.6 billion by 539.26%.

4. Opening-up of the insurance market

4.1 Increasingly opening up of the insurance market

In January 2017, the State Council issued *Notice of the State Council on Several Measures for Expanding Opening Up and Vigorously Using Foreign Capital*. The document emphasized that the restrictions on the access of foreign capital to banking financial institutions, securities companies, securities investment fund management companies, futures companies, insurance institutions, and insurance intermediary agencies shall be relaxed. In August, the State Council issued *Notice of the State Council on Several Measures for Promoting Growth of Foreign Investment*, which emphasized the continuous promotion of the opening of the insurance industry and indicated a clear timetable and a road map.

By end of September 2017, insurance companies from 16 countries and regions set up 57 foreign-funded insurance companies and more than 1,800 branches in China, with total capital over RMB 1 trillion. Moreover, foreign insurance companies in the Fortune 500 all entered Chinese market. It promoted the main structure of the insurance industry in China and formed a situation in which Chinese and foreign insurance companies adhere to the idea of complementary advantages, fair competition and harmony development.

4.2 Actively serving the Belt and Road Initiative

On December 14, 2017, the SHIE launched Co-insurance Platform formally to offer one-stop solutions, including matchmaking, statistics clearing, capital settlement, information inquiry and so on, for property coinsurance business between insurance institutions. The construction of the platform contributed to the standardization and centralization of coinsurance settlement and provides strong support for enhancing the underwriting capacity of insurance companies in face of large projects and special risks. Meanwhile, it played an important role to accelerate the going out of domestic insurers for participating in international competitions as well as provide domestic and foreign companies with risk prevention and risk diversification in the implementation of the Belt and Road Initiative.

4.3 Facilitating cross-border clearing and settlement for international reinsurance

To implement the strategy of RMB internationalization and support the construction of the China (Shanghai) Pilot Free Trade Zone, the account system in the China (Shanghai) Pilot Free Trade Zone interconnected with the SHIE effectively to facilitate the cross-border RMB settlement in international reinsurance business, improve the supporting clearing and settlement mechanism, and reduce exchange rate risks.

4.4 Promoting the construction of international shipping insurance center

Based on the international shipping insurance platform independently developed by the SHIE, the insurance products registration system was established for autonomous registration by insurance institutions, daily management by industry association, operation by SHIE, operational and post-operational oversight by regulatory agencies. In addition, the comprehensive and transparent registration information disclosure system and a trinity risk control mechanism consisting of self-discipline, public supervision and government regulation, were constructed. These achievements stimulate the innovation vitality of shipping insurance products and released supply potential effectively, thereby enhanced international competitiveness of shipping insurance industry in Shanghai.

5. Prospects for the development of insurance market

In 2017, the insurance industry fully advanced instructions of the CPC Central Committee and the State Council, calmly responded to the risks and challenges and further promoted the implementation of the "1+4" series of documents. The insurance industry not only witnessed remarkable progress in the aspects of guarding against risks, tackling disorder, fixing weakness and serving the real economy, but also pooled strength in the overall interest of the country. In 2018, the insurance industry will follow Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, fully implement the spirit of the 19th National Party Congress, the Central Economic Work Conference and the National financial Work Conference. In addition, the insurance industry will regard the people's ever-growing needs for a better life as the goal, adhere to the principle of "the insistence of the insurance industry on insurance", give full play to the long-term, sound risk management and guarantee functions in order to serve the economic and social development better. With the development of the insurance market infrastructure construction, the multi-level insurance market system in China will further improve pricing mechanism, standardized trading mechanism and transaction order regulation, expand the range of risk transactions, and better satisfy diverse demands of insurance. In addition, Chinese insurance market will actively expand the opening degree, actively implement the national strategic requirements for building new systems for an open economy, better serve major national strategies, such as the Belt and Road Initiative and China Pilot Free Trade Zone, and eventually assist in making new ground in pursuing opening up on all fronts.

BOX V Regulation and management of the insurance industry

In 2017, China's insurance industry focused on promoting the transformation and reform, insisting on tightening regulation, preventing risks, tackling disorders, improving weak links and serving the real economy, strengthening the implementation of regulatory rules, putting into full play the role of insurance in the long-term and sound risk management and guarantee, keeping improving the ability of serving the overall situation.

1. Strengthening regulation on the insurance industry, preventing and resolving potential risks in priority fields

In 2017, in order to deeply implement the spirits of the Central Economic Work Conference and continue to deepen the risk prevention work of the insurance industry, the CIRC issued Notice of the China Insurance Regulatory Commission on Further Strengthening Insurance Regulation and Maintaining the Stable and Healthy Development of the Insurance Industry (CIRC〔2017〕No.34), which made clear the overall thought for the supervision and management work of the insurance industry in a future period. Meanwhile, the CIRC also formulated and issued four implementation documents, including Notice of the China Insurance Regulatory Commission on Further Strengthening the Risk Prevention and Control of the Insurance Industry (CIRC〔2017〕No.35), Notice of the China Insurance Regulatory Commission on Enhancing Insurance Regulation, Cracking Down on Violations of Laws and Regulations and Addressing Market Irregularities (CIRC〔2017〕No.40), Guiding Opinions of the China Insurance Regulatory Commission on the Support of the Insurance Industry for the Development of the Real Economy (CIRC〔2017〕No.42), Notice of the China Insurance Regulatory Commission on Fixing Weakness in Regulation and Developing a Rigorous, Effective Insurance Regulatory System (CIRC〔2017〕No.44). Surrounding the prevention of risks in nine priority fields, the CIRC adopted a series of supervision measures.

First, preventing liquidity risks. Regular monitoring system of liquidity risks was established to strengthen the management responsibility of insurance companies and improve the prevention mechanism of liquidity risks. The system of emergent liquidity provision arrangement for insurance companies by insurance guarantee fund was developed.

Second, preventing the insurance funds utilization risk. Investigation on insurance funds utilization in priority fields was carried out to implement pass-through examination, strictly control the incremental risks. Supervision was strengthened to manage disorders like irrational bidding and cross-border acquisition, strictly control the insurance fund to enter the real estate industry, strictly forbidden direct and indirect investment of insurance funds into the commercial residence, standardize the overseas loan under domestic guarantee of the insurance institutions, cancel the channel business, and effectively contain the radical investment of *insurance funds.*

Third, preventing strategic risks. Incorporation was standardized to strengthen supervision on corporate governance and on related transactions.

Fourth, preventing the new business risks. Special program of rectification of risks in internet insurance was pushed forward to standardize the credit and guarantee insurance business and prevent the inter-section financial risks.

Fifth, preventing external transitive risks. To prevent some enterprises in difficulties from transferring risks and losses to the insurance industry through property insurance and credit insurance.

Sixth, preventing collective incidents risks. The construction of real-name registration system was promoted; standardized insurance service was initiated, and management on sales behavior of insurance products was enhanced. Efforts were made to deepen the "Show Sword Action", and to strictly investigate and punish behaviors violating laws and regulations that do harm to the rights and benefits of insurance consumers.

Seventh, preventing the unclear basic information risks. Insurance companies were organized to carry out self-examination on the authenticity of solvency data from five aspects of assets, reserves, capital, risk rating and information disclosure. 601 problems were found and relevant companies were required to rectify the problems, thus improving the data quality of the whole industry.

Eighth, preventing the risk of fraudulent registered capital. Penetrated investigation was carried out on shareholders' capital of its origin, to ensure the contributed capital is self-owned, real and legal, as well as on the qualification of shareholders by strengthening background examination, to strictly prevent investors with impure motive to invest in the insurance industry.

Ninth, preventing the reputation risks. Policy interpretation and publication was strengthened to guarantee governmental affairs publicity. The system of news spokesman was launched for the insurance industry. Surveillance and reminding of public opinions was enhanced to respond to public opinions in time.

In 2017, the CIRC also formulated a series of rules to prevent and solve the risks in priority fields. First, paying close attention to the liquidity risks of priority companies and improve the liquidity supervision rules. Measures were taken from multiple aspects including insurance product, asset structure, liabilities structure, disposal of long-term assets, increase short-term fluidity assets to alleviate the liquidity risks. Meanwhile, focus was attached on the expiration payment risk and surrender risk prevention. Second, supervision on corporation governance and related transaction was strengthened. In June 2017, the CIRC issued Notice of the China Insurance Regulatory Commission on Matters concerning Further Strengthening the Management of the Affiliated Transactions of Insurance Companies (CIRC〔2017〕No.52) to strengthen the supervision by *clearing supervision principles of "penetrated supervision" and "Substance over form"; strictly affirmed the related parties and connected transaction and increased the supervision strength of connected transactions. Third, regulation on insurance funds utilization was enhanced to carry out the special governance of insurance funds utilization risk investigation, pay main attention to the priority stock, equity investment, financial products application, buy-back transaction, and assets pledge; keep carrying on-site inspection of the prominent problems and priority insurance institutions.*

Guided by the CIRC "1+4" series of documents, the pace of transformation and upgrade of the insurance industry sped up; the industry risks were effectively controlled. The foresight, pertinence and effectiveness of the insurance industry risk prevention were strengthened, the risk conditions of the industry were stable in general. In 2017, the Chinese insurance industry achieved premium income of RMB 3.66 trillion (up 18.16%, year on year) and the total asset of the China's insurance industry was RMB 16.75 trillion (up 10.80%, year on year).

2. Putting into play the effective role of the insurance industry on risk management and safeguard, and promoting the industry to return to its nature

First, comprehensive implementation of catastrophic health care insurance for urban and rural residents. Issue related rules to support catastrophic health care insurance and encourage related insurance companies to extend their service chains by realizing the immediate settlement, off-site settlement and one-stop service. In the first half of 2017, the renewed catastrophic health care insurance projects covered 846 million urban and rural residents. In the past five years, more than 13 million residents directly benefited from the catastrophic health care insurance. The actual reimbursement level of the medical expenses for catastrophic illness patients was raised by 13% and the highest compensation for urban and rural residents was RMB 1.12 million.

Second, promoting the development of the health endowment industry. The insurance industry was encouraged to participate in investing and participating in the reform of medical institution and public hospital, promote the social medical, alleviate the contradiction of the insufficient health medical resource input and form reasonable diversified medical pattern and medical service competition mechanism. Insurance funds were encouraged to participate in the investment and operation of the retirement community, promote the development of the retirement community projects.

Third, promoting agricultural insurance development. Major policy research about "transferring direct grain subsidy to indirect subsidy of insurance" was carried out and pilot plans were worked out. At end-December, 213 million farmer families were included in agricultural insurance with total risk coverage of RMB 2.79 trillion, up by 29.24% year on year; with a claim payment of RMB 33.45 billion, an *increase of 11.79% year on year. Innovation and development of products were pushed forward. 200 grain-producing counties in 13 main grain-producing provinces were chosen as pilot areas, with insurance protection translating from materialized cost to land transfer cost. Pilot program of "insurance plus futures" was steadily advanced, which gained positive evaluation.*

Fourth, promoting the reform of the commercial auto insurance. Since 2015, the CIRC has promoted two rounds of pilots. Since June 2016, it carried out the commercial auto insurance reform nationwide. By revising terms of the commercial auto insurance, it strengthened the obligation of information disclosure, simplified the claim process and reduced the claim disputes and lawsuit dispute. In terms of rate reform, it realized the pricing of auto damage insurance according to the vehicle type; created rate award and punishment mechanism connected to claim frequency; defined rate adjusted coefficient related to traffic violation; gave pricing rights to insurance companies. In terms of infrastructure construction, set up the standard database of the auto models; kept issuing various indexes including auto safety index. The CIRC also set up the backtracking and revision mechanism of the commercial auto insurance rate by combining on-site evaluation with off-site evaluation.

3. "Poverty alleviation through financial industry, insurance goes the first" supports national poverty alleviation strategy

First, insurance poverty alleviation protection system was established focusing on agriculture insurance and catastrophic health care insurance, to prevent returning to poverty caused by diseases and disasters.

Second, China Insurance Poverty Alleviation Investment Fund was supported to be set up. With market-oriented operation, the fund was mainly invested in poor areas, old revolutionary bases, border areas and areas of minority nationalities with a total scale of RMB 10 billion. The first project with RMB 1 billion was launched in a national-level poor county Fuping County, Hebei Province.

Third, the SHIE innovated the poverty alleviation mode, constructed the targeted poverty alleviation mode of "charity plus SHIE plus insurance" and realized the total sum insured of around RMB 58 billion by using of RMB 14.25 million donations, providing insurance protection for 760,000 people in 17 poor counties of six provinces including Yunnan, Shanxi, Tibet, Anhui, Sichuan and Jiangxi.

4. Innovating the insurance service, and improving the efficiency and level of insurance serving the real economy

First, actively used insurance funds to serve the supply-side structural reform. By focusing on five priority tasks of "cutting overcapacity, reducing excess inventory, deleveraging, lowering costs and strengthening areas of weakness", the advantages of insurance funds were put into play to accelerate the transformation and upgrading of traditional industries (e.g. the coal and the steel industry), and support the insurance funds to *participate in deleveraging and market-oriented debt-to-equity swaps. Up to the end of August 2017, 14 perpetual debts were registered with a scale of over RMB 80.8 billion.*

Second, actively supporting the Belt and Road Initiative and the national strategy for regional development. Specifically, domestic insurance organizations were encouraged to increase practical cooperation between China and other countries (regions) along the routes, insurance funds were supported to serve regional development strategy (e.g. Beijing-Tianjin-Hebei integration, and the Yangtze Economic Belt). By end of 2017, the insurance fund invested RMB 856.83 billion in the Belt and Road Initiative project by means of debt or equity, RMB 365.25 billion in the Yangtze River economic belt, RMB 156.80 billion in the Beijing-Tianjin-Hebei integration.

Third, actively participating in PPP project and major projects. The CIRC printed and issued a series of documents, such as the Notice on Matters Concerning the Investment of Insurance Funds in the Public-Private Partnership Projects (CIRC〔2017〕No.41） and the Notice on Matters Concerning the Investment of Debt Investment Plans on Major projects (CIRC〔2017〕No.135）, which cleared specific supporting policies in detail. Up to the end of August 2017, it launched and set up 733 various creditors' rights and stock rights investment plans, overall scale of registration reached RMB 1.84 trillion.

Fourth, further promoting the new technology and new forms of business in insurance service. It is organized to develop targeted new technology insurance products. Currently, more than 20 types of insurance were developed, thus actively promoting the loan guaranty insurance pool in technological SMEs. The pilot of professional internet insurance companies was advanced orderly, to expand business scope of the professional internet insurance companies. In 2017, the number of signed internet insurance innovation business reached 12.49 billion, which increased by 102.60% year on year.

Fifth, implementing the supervision policy in favor of serving the real economy. The CIRC drafted the Building Plan for the Second Phase Project of the China Risk Oriented Solvency System. According to certain requirements, the construction of the second phase project of the C-ROSS will implement consequent amendment of the current solvency supervisory regime and strengthen the capability of the insurance industry to serve the real economy. In terms of classified supervision and differentiated supervision, Insurance Asset Management Association of China issued and printed the Notice on Setting up Green Channels for the Investment in Major Projects by Debt Investment Plans. In case of investing major projects (e.g. the Belt and Road Initiative) by means of debt plans, it can apply for the registration green channel and prior registration.

5. Adequately protecting the legitimate rights and interests of insurance consumers

First, maintaining high-banded posture. Total

585 inspection teams and 1,813 man-time were deployed by the CIRC to take specialized inspected over 606 insurance institutions and agencies. Second, strengthening the construction of insurance consumers' rights and interests protection system. Issued risk warning concerning insurance consumption, issued the Memorandum of Understanding on Jointly Punishing the Responsible Parties with Serious Illegal and Faithless Acts in the Insurance Sector; promoted the interim measures of insurance sales practices, deepened the small-sum insurance claim system; started the insurance service standardization; promoted the complaint evaluation; dissolved insurance consumption disputes in a timely manner. Third, strictly preventing the group complaint and the reputation risk of the industry. In 2017, the hot line of 12,378 answered 696,900 calls; the insurance regulator received and dealt with more than 93,000 complaints cases; the dispute mediation agencies successfully solved more than 150,000 dispute mediation cases throughout the year. Fourth, stimulating insurance companies' service. The service of 117 insurance companies were evaluated and released for public. Kept monitoring and reporting small-sum insurance claim settlement services and various indexes were further improved.

Part VIII Derivatives Market

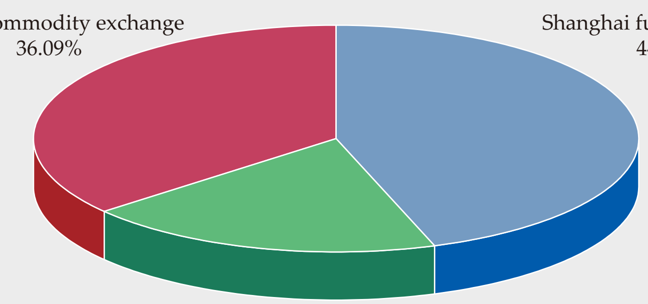
I. Commodity futures and options markets

1.1 Operation profile of the commodity futures and options markets

In 2017, National commodity futures and options realized cumulative trading volume of 3.052 billion lots and cumulative trading turnover of RMB 163.30 trillion, down by 25.92% and 7.95% on a year on year basis respectively (data presented in this chapter are all calculated by one-sided market）.

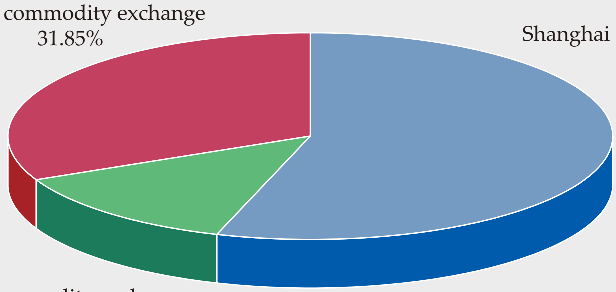
As for exchanges, Shanghai Futures Exchange (hereinafter referred to as SHFE) realized cumulative trading volume of 1.364 billion lots and cumulative trading turnover of RMB 89.93 trillion, down by18.83% and up by 5.83% on a year on year basis respectively, accounting for 44.71% and 55.07% of national commodity futures market respectively, having increased compared with that of last year. Zhengzhou Commodity Exchange (hereinafter referred to as ZCE) realized cumulative trading volume of 586 million lots and cumulative trading turnover of RMB 21.37 trillion, down by 34.98% and 31.14% on a year on year basis respectively, accounting for 19.20% and 13.08% of national commodity futures market respectively. The proportion is slightly down compared with that of last year. Dalian Commodity Exchange (hereinafter referred to as DCE) realized cumulative trading volume of 1.101 billion lots and cumulative trading turnover of RMB 52.01 trillion, down by 28.37% and 15.31% on a year on year basis respectively, accounting for 36.09% and 31.85% of national commodity futures market respectively. The proportion is slightly down compared with that of last year.

Figure 8.1 Trading volume proportion of each commodity futures exchange in 2017



Source: China Futures Association.

Figure 8.2 Turnover proportion of each commodity futures exchange in 2017



Source: China Futures Association.

In terms of trading volume, top ten commodity futures products of 2017 were Steel Rebar, Iron Ore, Soybean Meal, PTA, Methanol, Corn, Hot Rolled Coil, Bitumen, Zinc and Rubber, with a total of 1.98 billion lots and accounting for 64.88% of total commodity futures and options trading volume. The top ten varieties (ranked by trading turnover) were Rebar, Iron Ore, Rubber, Copper, Zinc, Coke, Nickel, Gold, Aluminum and Soybean Meal, with a total of RMB 108.35 trillion and accounting for 66.35% of the aggregated commodity futures turnover.

According to data statistics of Futures Industry Association (FIA) for the trading volume of the first half of 2017, SHFE, DCE and ZCE ranked 9th, 10th and 12th respectively, dropping by four places, one place and one place a on year on year basis respectively. In terms of trading volume of commodity futures and options in 2017, SHFE, DCE and ZCE ranked 1st, 3rd and 5th respectively.

1.2 Main features of the operations of commodity futures and options markets

1.2.1 Trading volume of commodity futures market declined

In 2017, the national commodity futures market witnessed the first shrink since 2011, with the trading volume and trading turnover falling by 25.92% and 7.95% on a year on year basis respectively.

Under major commodity categories, among the primary energy and chemical futures products, the trading volume of PVC skyrocketed by 246.89% on a year on year basis in 2017, and the trading volume of Fiberboard, Hard Coking Coal and Methanol also fairly increased. By contrast, trading volume of Thermal Coal, Polyethylene, Glass, Bitumen, Fuel Oil, Polypropylene and Blockboard slumped by more than 30% on a year on year basis in 2017 respectively.

Among the primary metal varieties, trading volume of Ferrosilicon, Manganese Silicon, Lead and Hot Rolled Coil rose significantly in 2017, with a year on year increase of 2,368.32%, 1,726.35%, 174.25% and 138.28% respectively. The trading volume of Wire Rod, Aluminum and Zinc grew by more than 25% on a year on year basis respectively. Trading volume of Iron Ore, Steel Rebar, Copper and Nickel fell. Trading volume of Tin, Silver and Gold slumped by more than 30% on a year on year basis in 2017 respectively.

Among the primary agricultural product varieties, trading volume of No. 2 Yellow Soybeans and Egg skyrocketed significantly by 2,220.12% and over 60% on a year on year basis in 2017 respectively. Trading volume of Rapeseed Oil, Rubber, No.1 Yellow Soybeans, Japonica Rice, Wheat Strong and Corn Starch decreased. Trading volume of Late Indica Rice, Soybean Oil, Sugar, Early Indica Rice, Palm Oil, PM, Soybean Meal, Rapeseed Meal, Cotton No. 1 and Rapeseed slumped by more than 30% on a year on year basis in 2017 respectively.

1.2.2 Most commodity futures prices rose

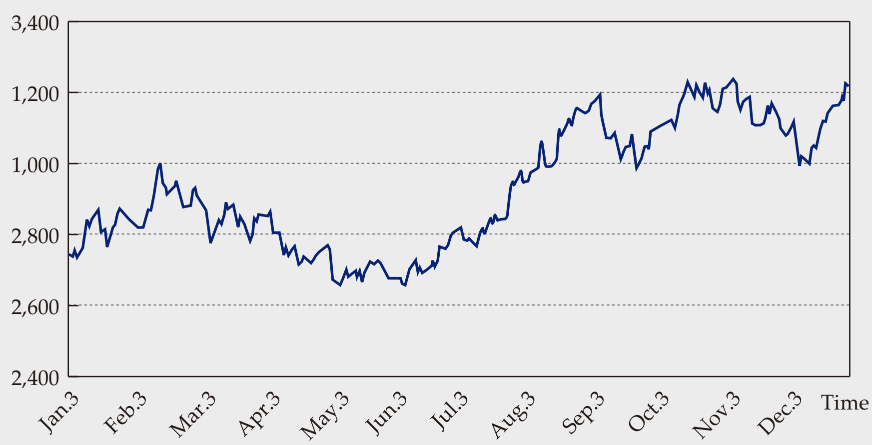
1.2.2.1 Non-ferrous metal: non-ferrous metal futures prices rose, except tin

Closing price under dominant contracts of Copper, Aluminum, Zinc, Lead and Nickel was 55,580 yuan/ton, 15,225 yuan/ton, 25,725 yuan/ton, 19,170 yuan/ton and 96,870 yuan/ton respectively. By contrast, Tin's dominant contract closed at 144,840 yuan/ton, down by 3.61% compared with the beginning of the year.

1.2.2.2 Steel: steel futures prices rose, iron ore futures prices fell slightly

Closing price under dominant contracts of Steel Rebar and Hot Rolled Coil was 3,794 yuan/ton and 3,846 yuan/ton, up by 33.08% and 16.62% compared with the beginning of the year respectively. By contrast, closing price

Figure 8.3 Trend of SHFE non-ferrous metal index in 2017



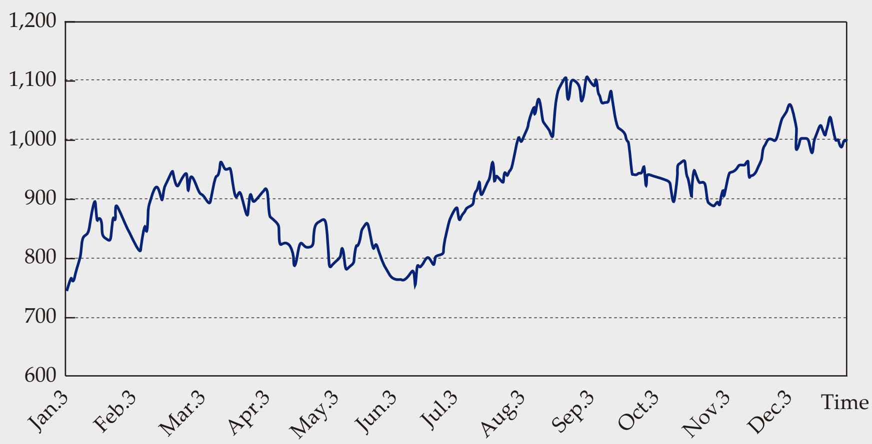
Source: Wind.

under dominant contract of Iron Ore was 531.5 yuan/ton, down by 0.47% compared with the beginning of the year.

1.2.2.3 Energy and chemical: prices of over half of the futures products increased

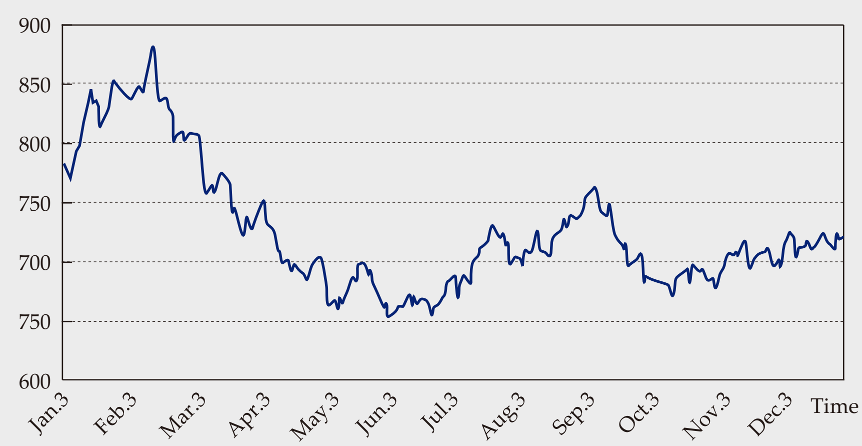
Closing price of Coke, Glass, Power Coal, Coking Coal, PVC, Polypropylene, Methanol, PTA and Plastics increased by 33.70%、23.17%、22.80%、16.66%、10.46%、8.36%、6.97%、1.36% and 0.93% compared with the beginning of the year. By contrast, the closing price of Petroleum Asphalt was down by 0.98% compared with the beginning of the year.

Figure 8.4 Trend of steel futures index from Chinese futures market monitoring center in 2017



Source: Wind.

Figure 8.5 Trend of Energy and Chemical futures index from Chinese futures market monitoring center in 2017



Source: Wind.

1.2.2.4 Agricultural products: prices of over half of the futures products fell

Closing price of Corn, Corn Starch, Egg and Rapeseed Meal increased by 19.55%, 18.80%, 13.07% and 0.53% compared with the beginning of the year respectively. By contrast, closing price of Soybean Meal, Cotton No.1, Vegetable Oil, Sugar, Wheat Strong, No.1 Yellow Soybeans, Palm Oil, No.2 Yellow Soybeans, Soybean Oil and Rubber slumped by .43%、0.93%、10.51%、11.90%、13.78%、14.01%、16.25%、17.11%、18.45% and 23.18% compared with the beginning of the year respectively.

1.2.3 Performance of risk management subsidiaries of futures companies improved dramatically

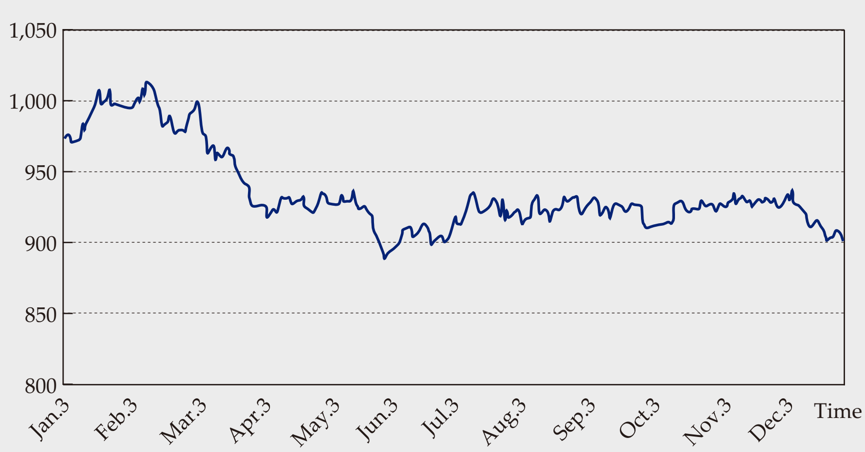
In 2017, both the size and profit of risk management subsidiaries of domestic futures companies have increased greatly. According to the data from China Futures Association, by the end of November, a total of 70 risk management companies have registered with China Futures Association, among which 65 have filed for pilot business. The total and net assets of these 70 companies reached RMB 27.333 billion and RMB 12.256 billion, up by 31% and 89% on a year on year basis respectively. From January to November, business income and net profit of the risk management subsidiaries reached RMB 73.601 billion and RMB 856 million, up by 85% and 1,510% on a year on year basis respectively.

1.3 Innovation of commodity futures and options market

1.3.1 Variety continued to be broadened, and commodity futures options formally made debut

In 2017, China's futures market launched two commodity futures and two commodity options. Specifically, Cotton Yarn Futures and Apple Futures were listed at ZCE on August 18 and December 22 respectively. DCE Soybean

Figure 8.6 Trend of agricultural commodities futures index from chinese futures market monitoring center in 2017



Source: Wind.

Meal Futures Option and ZCE Sugar Futures Option were listed on March 31 and April 19 respectively. As China's first commodity options, Soybean Meal Futures Option and Sugar Futures Option currently witness relatively stable trading volume and steadily upward position, and market makers fulfill bilateral quotation function well. The listing of these two futures options provides agricultural enterprises with more diversified and sophisticated risk management instruments, impels the liquidity of non-dominant contracts for underlying futures to some extent, and improves the capacity of futures market to serve the agriculture real economy. So far, there are 56 listed futures and options in China. Besides, initiation of SHFE Pulp Futures, ZCE Red Date Futures and SHFE Copper Futures Option was approved in March, July and November respectively.

1.3.2 "Insurance + Futures" continues to be specified in document No. 1 of the central government

From 2016 onwards, "Insurance + Futures", as usual, has been specified in the 2017 No. 1 Central Document (*Several Opinions of the CPC Central Committee and the State Council on Deepening the Structural Reform of the Agricultural Supply Side and Accelerating the Incubation of New Dynamics for Agricultural and Rural Development*). It is clearly stated in Section of "Accelerating Rural Financial Innovation" in these Opinions: "It is necessary to further promote the construction of agricultural product futures and options markets; vigorously instruct agribusiness enterprises to manage market risks through futures and options, and steadily expand the pilot for 'Insurance + Futures'".

In order to implement the keynote of the 2017 No. 1 Central Document, SHFE, DCE and ZCE played an active role in pilot for "Insurance + Futures" and launched a total of 79 pilot projects throughout the year. The total pilot scale is 800,000 tons, and exchanges' allowance is up to RMB 130 million. Among them, SHFE has launched a full-scale precision poverty alleviation pilot campaign for Rubber "Insurance + Futures" since March 2017. 23 pilot projects were launched in 14 poverty-stricken counties in Hainan Province and Yunnan Province (including 12 national-class poverty-stricken counties and more than 23,000 farmers), for which financial support of about RMB 40 million was offered. The total compensation of these pilot projects was RMB 18.23 million, and more than 15,000 farmers have been paid. ZCE launched 24 pilot projects. ZCE launched 24 pilot projects covering 14 national-class poverty-stricken counties in five provinces and autonomous regions, and offered financial support of about RMB 20 million in total. DCE launched 32 pilot projects covering seven provinces and autonomous regions, and offered financial support of about RMB 70 million in total.

1.4 Commodity futures and options market system and infrastructure construction

1.4.1 Futures law of the people's republic of china quickened the pace

In 2017 Legislative Work Plan of the Standing

Committee of the National People's Congress, which was disclosed in May 2017, *Futures Law of the People's Republic of China* was specified as a preparation and research demonstration project. In September, Fang Xinghai (Vice Chairman of China Securities Regulatory Commission) commented at the Sixth Member's Assembly of Shanghai Futures Exchange that faster progress was made in the promulgation of *Futures Law of the People's Republic of China*. In November, Zhang Shenfeng (Chairman Assistant of China Securities Regulatory Commission) also pointed out at Sina Gold Kirin Forum that China Securities Regulatory Commission would do its best for revise or promulgate *Securities Law of the People's Republic of China*, *Futures Law of the People's Republic of China* and *Administrative Regulations for Private Equity Funds*, etc. The promulgation of *Futures Law of the People's Republic of China* will fill the gap in higher-level law concerning the supervision of the futures market, further improve the operation quality and "function and efficiency" of futures market, and accelerate the opening of the futures market to the outside world.

1.4.2 Three commodity futures exchanges revised articles of association and trading rules

Nowadays, reform and development of futures and options market have been further improved. Market regulation and supervision have been continued to be promoted. *Administrative Regulations for Futures Trading* and *Administrative Measures for Futures Exchanges* have also been successively revised. In this context, three Commodity Futures Exchanges revised *Articles of Association* and *Trading Rules*.

On January 9, 2017, DCE officially released the revised *Articles of Association of Dalian Commodity Exchange* and *Trading Rules of Dalian Commodity Exchange (DCE issued,* 2017, *No. 8).* The revised contents of *Articles of Association of Dalian Commodity Exchange* mainly involve the optimization of internal governance structure, expansion of the development room for business lines and strengthening of the self-regulatory duties of DCE. The revised contents of *Trading Rules of Dalian Commodity Exchange* mainly involve manifestation of actual business, expansion of the development room for business lines and improvement of the self-regulatory duties of DCE.

On May 19, ZCE released the revised *Articles of Association of Zhengzhou Commodity Exchange* and *Trading Rules of Zhengzhou Commodity Exchange (ZCE issued,* 2017, *No. 147),* which not only places priority over improvement of ZCE corporate governance structure, rationalization of the operating mechanism, optimization of the systems and rules and improvement of work efficiency, but also lays a solid institutional foundation for institutional innovation and technological innovation, launching of strict and comprehensive supervision and progress in internationalization of ZCE.

On November 13, 2017, SHFE released the revised *Articles of Association of Shanghai Futures Exchange* and *Trading Rules of Shanghai Futures Exchange (SHFE issued,* 2017, *No.209). Articles of Association of Shanghai Futures Exchange* mainly focuses on improvement of membership-based governance structure, expansion of the development room for business lines, enhancement of the frontline supervision capacity and improvement of membership management. The main revisions of *Trading Rules of Shanghai Futures Exchange* lie in improvement of prevailing futures trading system, laying of rule foundation for institutional innovation, strengthening of the self-regulatory duties of SHFE and refinement of the constitutional elements of futures trading responsibilities.

1.4.3 Supervision system of futures trading institutions was under sustained refinement

With the rapid development of the futures industry, China Securities Regulatory Commission, China Futures Association and other organizations released relevant laws and regulations to improve the supervision system of futures trading institutions.

In July 2017, China Futures Association officially implemented *Guidelines for the Implementation of Appropriateness Management of Investors in Futures Trading Institutions (For Trial Implementation) (CFA issued,* 2017, *No.60)*, which echoes the requirements of *Administrative Measures for Appropriateness Management of Securities and Futures Investors (SFC Order No.130)* promulgated by China Securities Regulatory Commission in December 2016, emphasizes the strengthening of investor protection, further improves self-discipline rule system of the futures industry, and instructs the futures institutions to conduct investor appropriateness management.

In October 2017, China Securities Regulatory Commission enforced the revised *Administrative Measures for Risk Monitoring Indicators of Futures Companies (SFC Order No.131)* and supporting document. This revision, which echoes *Administrative Regulations for Futures Trading (State Council Order No. 489),* further strengthens supervision and management of futures companies, and encourages futures companies to strengthen internal control, prevent risks and develop steadily.

1.4.4 Commodity futures market steadily forged ahead for "going global"

Firstly, construction of international platform for Crude Oil Futures has been steadily advanced. In May 2017, Shanghai International Energy Exchange officially issued *Articles of Association of Shanghai International Energy Exchange, Trading Rules of Shanghai International Energy Exchange (SHFE issued,* 2017, *No.72)*, 10 related operational rules and standard contract of Crude Oil Futures. In June 2017, Shanghai International Energy Exchange formally accepted the customers' applications for trading codes. In July 2017, Shanghai International Energy Exchange approved Bank of China, Bank of Communications, China Merchants Bank and DBS Bank (China), ICBC, China Construction Bank, Agricultural Bank of China, and CITIC Bank as designated depository banks for overseas customers' margin deposit business. Besides, Shanghai International Energy Exchange carried out five market production system drills for crude oil futures throughout the year.

Secondly, international blueprint of Iron Ore

Futures became increasingly clear. DCE, based on the principles of "Active and Prudent, Gradual and Steady, Give Priority to 'Me', and Keep Risk under Control", formulated the plan for overseas investors to participate in Iron Ore Futures trading. Thirdly, internationalization of PTA Futures is under exploration. To achieve it, ZCE focuses on promoting pilot for PTA Futures introduced into foreign traders and carries out many other explorations.

2. Financial futures market

2.1 Operation of the financial futures market

In 2017, China's financial futures market witnessed a year of safe and stable operation. Total annual transaction volume reached 250 million contracts with a notional value of RMB 24.6 trillion, up by 34.14% and 34.98% respectively and each accounting for 0.80% and 13.09% of the total futures market. As of the end of 2017, there were 370,023 accounts in the financial futures market, among which 330,289 were natural person accounts, 31,775 were special legal person (licensed financial institutions) accounts, 5,901 were general legal person accounts and 2,100 were futures asset management accounts.

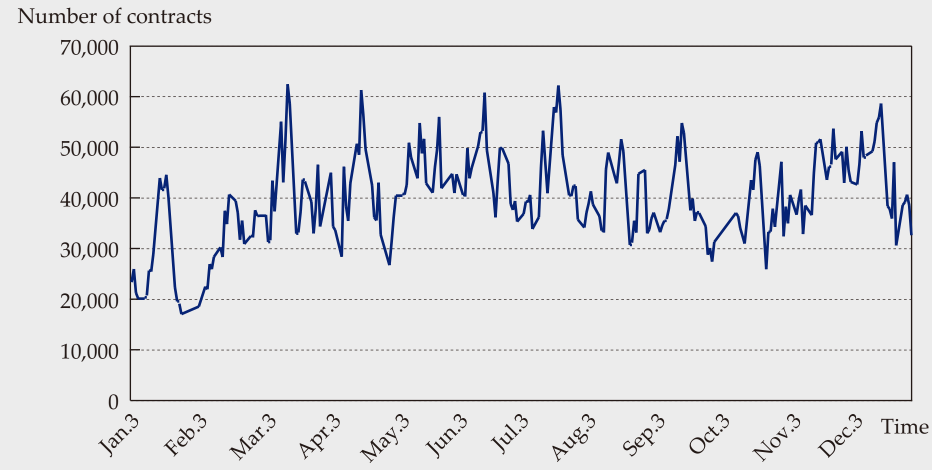
2.1.1 Equity index futures maintained stable operation with institutional investors contributing to the majority of the open interest

In 2017, China's equity index futures market saw stable operation with moderate year on year growth in transaction volume and open interest, maintaining a strong correlation between cash and futures prices. As of the end of 2017, total transaction volume of CSI 300、SSE 50 and CSI 500 index futures was 9.83 million contracts, and total notional value was RMB 10.51 trillion, up by 4.51% and 12.77% respectively; average daily volume and average daily open interest were 40.3 thousand contracts and 102.3 thousand contracts, up by 4.51% and 8.16% respectively; average volume to open interest ratio was down by 3.74%. In 2017, the daily open interest of institutional investors in CSI 300、SSE 50 and CSI 500 index futures accounted for 68.18%, 71.60% and 69.04% of their respective totals, highlighting a sound open interest structure. In 2017, the three equity index products showed good convergence between cash and futures prices, the coefficient of correlation between the closing price of the dominant contracts of CSI 300, SSE 50 and CSI 500 index futures and that of the corresponding cash indices were 99.92%, 99.94% and 99.52% respectively.

2.1.2 Treasury bond futures achieved stable operation with steady growth in transaction volume and open interest

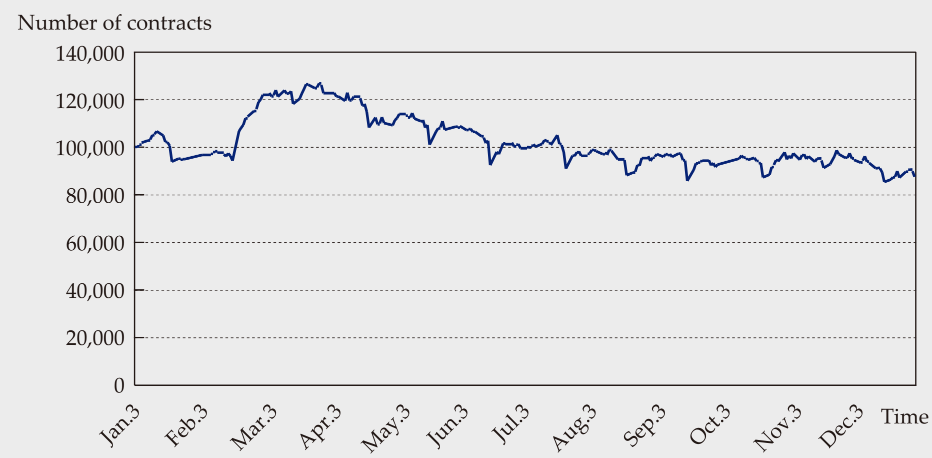
In 2017, Treasury bond futures achieved steady growth in transaction volume and open interest, sound correlation of cash and futures prices and smooth delivery processes. As of the end of 2017, the 5-Year and 10- Year Treasury bond futures totaled a transaction volume of 14.77 million contracts, averaging 60.5 thousand contracts a day, up by 65.33%; the total notional value reached RMB 14.09 trillion, averaging

Figure 8.7 Average daily transaction volume of equity index futures in 2017



Source: CFFEX.

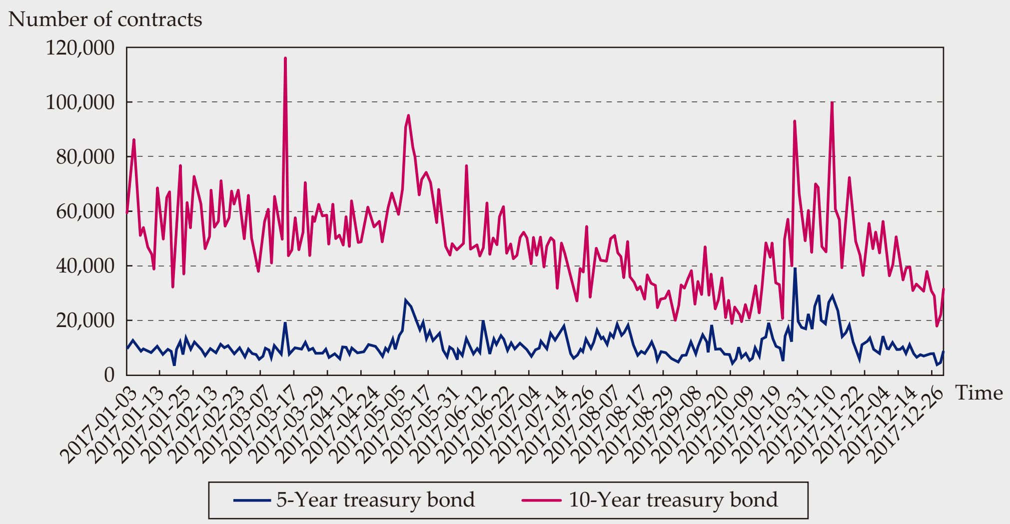
Figure 8.8 Average daily open interest of equity index futures in 2017



Source: CFFEX.

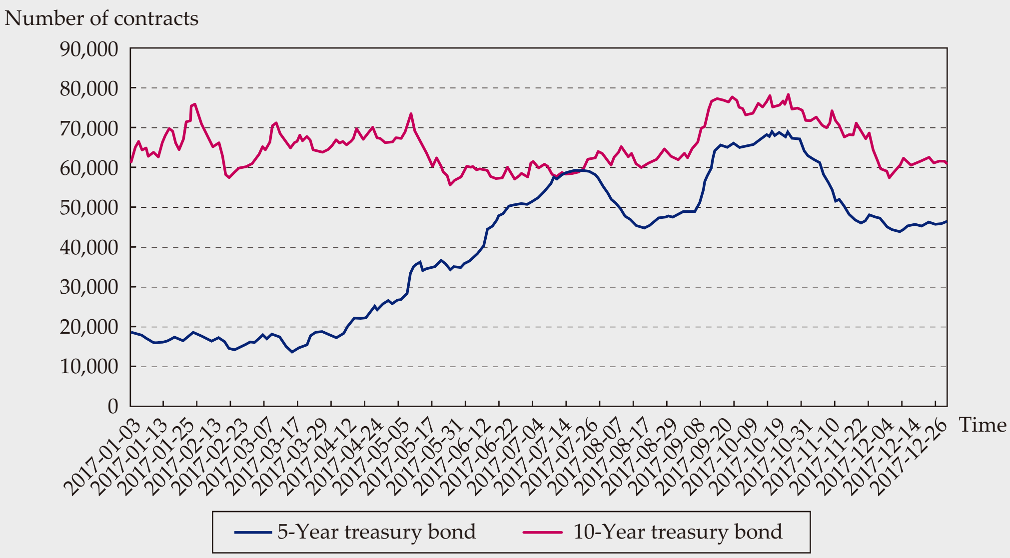
RMB 57.73 billion a day, up by 58.23%. As of the end of 2017, total open interest of Treasury bond futures was 107.4 thousand contracts, up by 33.76%, with the 5-Year and 10-Year Treasury bond futures each recording open interest of 46.4 thousand contracts and 61 thousand contracts. In 2017, Treasury bond futures completed successful delivery of eight contracts, with a total delivery volume of 8,062 contracts and a delivery ratio of 1.87%. The delivery process was sound and rational. Since inception, the correlation between the prices of dominant contracts of 5-Year and 10-Year Treasury bond futures with the cash prices remained over 98%, representing aligned trends in the movement of cash and futures markets.

Figure 8.9 Average daily transaction volume of treasury bond futures in 2017



Source: CFFEX.

Figure 8.10 Average daily position limit of treasury bond futures in 2017



Source: CFFEX.

2.2 Key characteristics of the financial futures market

2.2.1 Equity index futures market yet to increase in liquidity

On February 17th and September 18th, 2017, CFFEX made minor adjustments to the trading arrangements of equity index futures, including lowering margin requirements, transaction fee of closing out a position and raising the intraday position limits. Average daily trading volume and average daily open interest were 27.8 thousand contracts and 99.6 thousand contracts respectively before the February 17th adjustment and 42.2 thousand contracts and 107.1 thousand contracts after the adjustment. After the second adjustment on September 18th, average daily trading volume and average daily open interest were 41.2 thousand contracts and 93.5 thousand contracts. In 2017, volume to open interest ratio was relatively low at 0.40. After the two adjustments, market depth of CSI 300、SSE 50 and CSI 500 index futures reached 11.63, 10.37 and 8.40 contracts respectively. In summary, after the two adjustments in trading arrangements, the trading volume and open interest of equity index futures changed marginally, volume to open interest ratio remains low and market liquidity has yet to pick up.

2.2.2 Treasury bond futures market getting more mature

In 2017, the average daily open interest of 5-year and 10-year Treasury bond futures were 40.2 thousand contracts and 65.3 thousand contracts, registering a growth of 37.92% and 43.76% respectively compared with 2016. Such growth in open interest facilitates market development in a more balanced manner, which is conducive to better meeting investors' diversified needs for risk management and improving the yield curve to better reflect market supply and demand. In addition, 82% of the average daily open interest was held by institutional investors, indicating their increased dominance in the government bond futures market. Throughout the year under review, the government bond futures market functioned well to enable risk management amid high volatilities in the bond market. Substantial improvement was made in the government bond futures market with trading activities steadily growing, futures and cash prices being highly convergent, basis standing at a proper level and increased participation by institutional investors.

2.3 System and infrastructure development in the financial futures market

2.3.1 Adopting DVP in treasury bond futures settlement

Physical delivery of treasury bond futures has been working smoothly since its inception and facilitated orderly market functioning. To further support the development and functioning of the market, CFFEX adopted delivery versus payment (DVP) in treasury bond futures settlement in addition to its existing delivery model. DVP is a settlement procedure commonly used in developed markets for treasury bond futures, in which cash payment and delivery of the bonds are made simultaneously by the buyer and the seller on the settlement day. CFFEX first adopted DVP for treasury bond futures Contract 1,706 in June 2017 and has completed three deliveries by year end. The functioning of the DVP model has demonstrated three major features. First, DVP hugely improved the efficiency of cash and bond usage and took up 72% of total settlement volume. Market acceptance has far exceeded original expectations. Second, 88% of the contracts went into voluntary delivery prior to the settlement date, marking a notable increase of 49 percentage points compared with 2016. This helps to even out delivery throughout the settlement period instead of concentrating delivery on the last trading day, thus reducing risks related with final settlement. Third, with the buyer and the seller holding adequate cash and bonds, DVP reduces time of delivery by half a trading day in most cases, and investors' cash and bonds are consequently occupied for a shorter period of time. In general, the introduction of DVP enhances cash-futures connection in government bonds, reduces the time needed for delivery, improves turnover of cash and bonds, increases efficiency of settlement and effectively optimizes resource usage and allocation.

2.3.2 Steady progress made in financial futures market opening-up

2017 witnessed steady progress in the opening up of China's financial futures market. First, CFFEX continued to support the development of Pakistan Stock Exchange (PSX). Following the acquisition of PSX shares, CFFEX appointed its Director and sent a team to work in Pakistan to provide assistance to the development of PSX. With its presence at the PSX Board, General Meeting and various Board committees, CFFEX has fully fulfilled its shareholders' rights and obligations and facilitated PSX's efforts in optimizing Board structure and conducting global recruitment of senior management to further improve corporate governance. CFFEX also assisted the PSX in drafting business development plans, completing IPO, selecting listing candidates, developing new products and strengthening IT infrastructure. Second, CFFEX continued to support the development of China Europe International Exchange (CEINEX). CFFEX continued its cooperation with CEINEX in conducting staff training and exchange programs as well as joint marketing programs. The CEINEX marketplace has been smoothly operating for two years with trading volume steadily picking up. As of December 2017, CEINEX has 72 listed products, of which 13 are ETFs, 2 are ETNs and the rest are bonds. Since its inception, CEINEX has an accumulated trading value of RMB 8.58 billion (double-counted), with 99% of the trading activities generated by ETFs. The total notional value of RMB-denominated products amounted to RMB 353 million.

3. RMB interest rate derivatives market

3.1 Operation of RMB interest rate derivatives market

In 2017, RMB interest rate derivatives market turnover hit record high at RMB 14.41 trillion, year on year increase of 45.3%. Among which, plain vanilla interest rate swap transactions were RMB 14.40 trillion, and bond forward transactions were RMB 1.2 billion. As at the end of the year, the notional amount of outstanding interest rate swap contracts totaled RMB 12.55 trillion (unilateral), year on year increase of 52.8%.

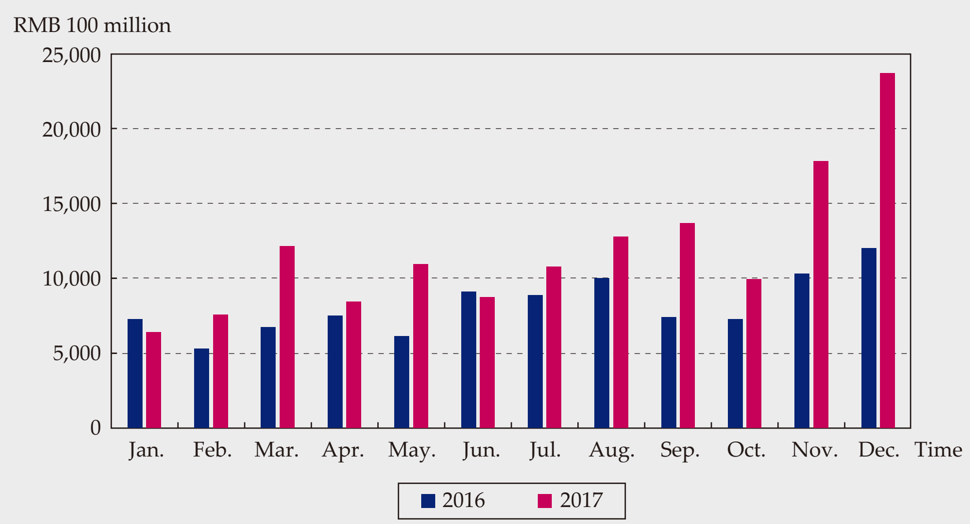
The participants of RMB interest rate derivatives market continued to grow, new institutions such as non-legal person products and rural financial institutions speeded up their entry. As at year end, there were a total of 317 system filing institutions (products) of the interest rate swap market, up 112 from the year end of last year. The institutions (products) committed to the use of transaction confirmation function of interest rate swaps totalled 273, an increase of 76 from the year end of last year.

3.2 Major characteristics of the operation of RMB interest rate derivatives market

3.2.1 Safe haven function highlighted; trading activity continued to increase

Along with the rising money market rate and bond yield, the safe haven function of interest rate swap highlighted with increasing scale of participating institutions, more diversified trading strategies and greater market activity. In March, interest rate swap turnover reached 1.2 trillion, creating a new record high from December last year. In May, interest rate swap turnover exceeded 1 trillion again. In the latter half of the year, the interest rate swap monthly turnover maintained at more than 1 trillion and exceeded the highest point of the first half of the year. In December, a new record high of 2.3 trillion was hit.

Figure 8.11 Notional principal of RMB interest rate swaps, 2016—2017



Source: China Foreign Exchange Trading System.

3.2.2 Still mainly short-term contracts, while the proportion of long-term varieties increasing

Regarding term structure, short term varieties of one year or less were dominant, notional principal accounted for 76.9% of the total turnover, among which the notional value of transactions within one year accounted for 40.5%, while the notional value of transactions of one year accounted for 36.4%; the transactions of varieties of 1~5 years accounted for 7%, up 1.5 percentage points. As the varieties of over 5 years benefitted from the introduction of X-Swap, the transactions of varieties of 5 years or above represented 16.1%, up 0.9 percentage point from last year. Among which, the transactions of varieties of 5~10 years made up of 16.1%, and those of varieties of 10 years or above accounted for 0.02%.

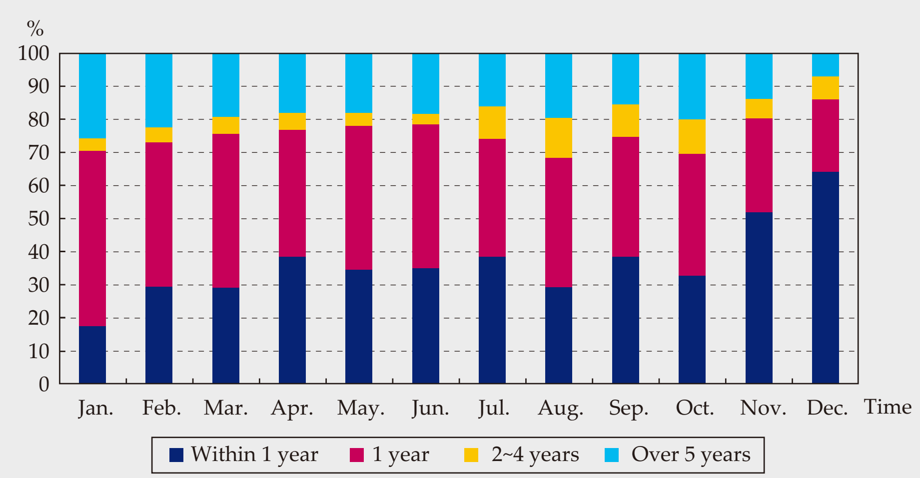
3.2.3 Reference rate was mainly FR007, while the proportion of transactions referred to Shibor was increasing

In terms of reference rate, FR007 was dominant in transactions, which accounted for 79.0%, down 6.9 percentage points. Following the rapid increase in the issuance of NCDs, the transactions with reference rate of Shibor were on the rise, up 6.7 percentage points of last year to 20.6%. In addition, transactions with reference rates of loan interest rate, FDR007 introduced this year, bond yield and bond spread were active to a certain extent, representing 0.4%, up 0.2 percentage point from last year.

3.2.4 The swap curve shifted up and flattened

Throughout this year, swap rates of most

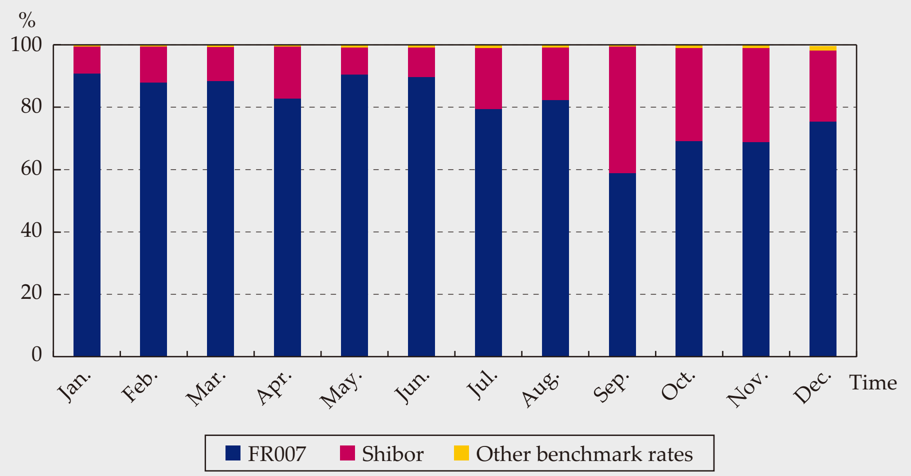
Figure 8.12 Term structure of RMB interest rate swaps in 2017



Source: China Foreign Exchange Trading System.

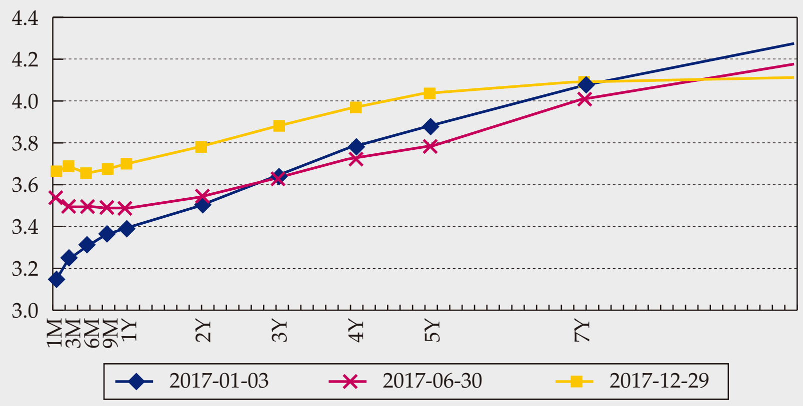
terms went up, and short-end rise was more than long-end rise which made the curve flattened. At year end, transactions with the most active 1 year and 5 year FR007 closed at 3.71% and 4.05%, up 33 and 19 percentage points respectively when compared with last year. The swap rate of swap contracts with Shibor 3M, which was also the pricing benchmark of NCDs, as reference rate experienced larger upward, the swap rate of 1-year Shibor 3M closed at 4.71%, up 93 bps from last year.

Figure 8.13 Reference rate structure of RMB interest rate swaps in 2017



Source: China Foreign Exchange Trading System.

Figure 8.14 2017 IRS-FR007 trend of closing curve



Source: China Foreign Exchange Trading System.

3.3 Innovation and systematic development of RMB interest rate derivatives market

3.3.1 Introduction of FDR and relevant interest rate swaps

On May 31, 2017, with the efforts of the People's Bank of China, China Foreign Exchange Trading System (CFETS) introduced the FDR, including FDR001, FDR007 and FDR014. This initiative would further improve the interest rate benchmarking system of the interbank market and improve the effectiveness of monetary policy transmission. At the same time, to satisfy the demand of financial institutions for interest rate swap transactions with FDR007 as the subject, CFETS introduced services relevant to interest rate swaps with FDR007 as reference rate, and market members gave enthusiastic response.

3.3.2 Introduction of long-term varieties to X-Swap

On July 24, 2017, with the efforts of the People's Bank of China, CFETS introduced RMB interest rate swap contracts with a term of more than 5 years, and the reference rates included FR007 and Shibor 3M, Shanghai Clearing House also extended the term of the central clearing products of interest rate swaps to 10 years. This policy effectively filled the gap of long-term variety of interbank interest rate derivatives market, and was significant to invigorate the market, raise trading efficiency and the provision of a complete swap rate curve.

3.3.3 Introduction of bond yields and spread interest rate swaps

On October 30, 2017, with the efforts of the People's Bank of China, CFETS introduced four reference rates for interest rate swaps, including GB10, CDB10, D10/G10, and AAA3/D3 to introduce bond yields and spreads into interest rate swap benchmarking curve. This policy largely expanded the scope of derivatives products of the interbank market and provided institutions with a more enriched, direct and effective tool for risk management.

3.3.4 Provision of interest rate swap compression service to improve the efficiency of central clearing

In 2017, Shanghai Clearing House provided RMB interest rate swap compression service for central clearing business contracts to further improve the efficiency of central clearing of RMB interest rate swaps. Contract compression is a new technology developed by Shanghai Clearing House for the central clearing system for RMB interest rate swaps where Shanghai Clearing House, as the central counterparty, negotiates with clearing participants to deal with the subsisting contracts included by the central counterparty for clearing, in order to reduce the number of derivatives contracts and notional principals. Contract compression plays a significant role in reducing the number of subsisting contracts, releasing credit quotas, lowering capital and decreasing portfolio administration costs. This important initiative is an innovation in post-trading treatment of the interbank market to align with international state-of-the-art technology.

4. RMB credit derivatives market

4.1 Market overview

In 2017, the notional amount of Credit Risk Mitigation (CRM) product transactions reached RMB 769 million, of which there were 24 Credit Default Swap (CDS) transactions with a total notional amount of RMB 650 million and trading terms all under 1 year, 2 Credit-Linked Note (CLN) transactions with a total notional amount of RMB 50 million and trading terms both under 1 year, 3 Credit Risk Mitigation Agreement (CRMA) transactions with a total notional amount of 69 million and trading terms all under 1 year. The reference entities of CRM transactions were from different industries including energy, transportation, public infrastructure, telecommunication, agriculture and forestry, metal, real estate, wholesale and retail, construction, etc.

In 2017, the CRM market witnessed a gradual increase of its market participants. As of the end of 2017, there had been 34 Major Dealers (including 22 banks, 11 security companies and 1 credit enhancement institution), 21 Dealers (including 20 non-corporate products and 1 non-financial institution), 25 Credit Risk Mitigation Warrant (CRMW) issuer (including 15 banks, 9 security companies and 1 credit enhancement institution) and 26 CLN issuer (including 16 banks, 9 security companies and 1 credit enhancement institution).

4.2 Market innovation and regulation development

4.2.1 The improvement of CDS trial quotation system

In order to establish CRM quotation system and thus fulfill the need of market participants for liquidity and pricing, after a phase of pilot operation, under the auspices of the PBC, NAFMII issued the *Notice on Carrying-out CDS Trial Quotation on the Interbank Market* in August, organized part of the Major Dealers to offer trial quotations for CDS contracts with reference entities of varied credit ratings on a weekly basis and thus processed quotation data for market use. As of the end of 2017, 26 CRM Major Dealers that had applied for and become CDS trial quotation institution had accomplished 57 terms of quotation. Meanwhile, in order to better use CDS quotation data for pricing, the CDS trial quotation mechanism was operated on line. NAFMII Comprehensive Business and Information Service Platform is the on-line platform for participants to publish quotations and obtain quotation data.

4.2.2 The completion of CLN transaction

In May 2017, China Agriculture Bank and China Bond Insurance Company issued CLN respectively, manifesting the launch of CLN in the Interbank Market and its trading in the secondary market. Since the revision and publish of CRM rules from September 2016, along with the growth of CRM trading volume, the number, type and need of market participants kept increasing and diversifying, but the lack of credit protection seller remained to be a problem and called for scale-up.

Under such a circumstance, CLN, as a funded credit derivative product, was beneficial to the expansion of credit protection seller, and together with CDS, catered for the diversified needs of market participants and optimized market participants structure.

4.2.3 The On-going informatization of CRM market

In 2017, NAFMII formally launched its CRM Transaction Recording and Information Service System, which enabled functions such as CRM transaction recording, trial quotation and information service. It offered the market with on-line information report platform and a third-party data source for the pricing business of market participants' middle and back office, therefore further reduced market participants' operational risk and increased the efficiency of transaction recording. Meanwhile, the system was capable of measuring real time market exposure and issuing timely warning of trading quota limit, which helped the controlling of market risks. The informatization of CRM market further improved market infrastructure, offering participants with more convenient and standard information service.

5. Exchange rate derivatives market

5.1 Operation of exchange rate derivatives market

In 2017, the interbank exchange rate derivatives market was active with accumulated trading volume of US$14.0 trillion. The accumulated trading volume of the interbank RMB exchange rate derivatives market was US$14.0 trillion, with year on year growth of 27.6%. Among which, RMB foreign exchange swap was the major variety in RMB derivatives market with turnover of US$13.4 trillion, up 34.1% year on year, RMB foreign exchange forward transactions were US$103.4 billion, down 32.4% year on year; RMB foreign exchange futures transactions were US$371.24 billion, down 50.3% year on year; RMB foreign exchange currency swap transactions were US$57.19 billion, up 1.56 times year on year.

The accumulated turnover of the foreign currency derivatives market was US$39.99 billion, up 12.7% year on year. Among which, the major variety of the foreign currency derivatives market was foreign currency swap, with turnover of US$32.38 billion, up 3.9% year on year. The trading volume of foreign currency forward was US$7.61billion, up 75.7% year on year.

In 2017, the membership of the exchange rate derivatives market continued to expand. As at late 2017, there were 194 RMB foreign exchange forward members, 192 RMB foreign exchange swap members, 163 RMB foreign exchange currency swap members, 116 RMB foreign exchange futures members and 175 foreign currency market members.

5.2 Major characteristics of the exchange rate derivatives market's operation

5.2.1 Increasing importance of exchange rate derivatives market

In 2017, exchange rate derivatives transactions totaled US$14.0 trillion, up 27.6% year on year; foreign exchange spots transactions were US$6.4 trillion, up 8.0% year on year. The percentage of exchange rate derivatives in the interbank foreign exchange market (excluding foreign currency lending) went up from 64.6% of last year to 68.5%, which was basically consistent with the pattern of 1 : 2 in terms of the turnover of spot and derivatives markets of the international foreign exchange market.

5.2.2 Fast development of currency swap business

In 2007, currency swap transactions were introduced in the interbank market. At first, due to the complexity of trading elements and other factors, market trade was inactive. However, after 2015, with the interaction of factors such as the increasing intensification of internationalization, rapid expansion of the scale of overseas investment, increasing bilateral fluctuation of RMB exchange rates and further opening up of the interbank market, the development of currency swap business was fast. The trading volume of currency swaps was rising significantly. In 2016, currency swap transactions reached US$22.3 billion, up 1.2 times year on year; trading was more active in 2017, the annual transactions were US$57.2 billion, representing 1.6 times of increase year on year.

5.2.3 Foreign exchange swap point gradually got closer to interest rate parity

With the expanding scale of domestic foreign currency lending market, the number of participants increased, domestic RMB foreign exchange swap point gradually moved close to the level of interest rate parity theory, and reflected more the changes in local and foreign currency spread and the demand and supply of foreign exchange, affected less by market expectations. At the end of 2017, in the domestic swap market, 1-year term USD/RMB swap rate closed at 6.6058 with 716 swap points, up 63 bps from last year's end. Swap points moved in a stable trend for the whole year, for the average annual point, 1-year term swap points were of 1,083 bps, an increase of 368 bps from the average point of the year before.

5.2.4 Significant reduction in the depreciation pressure of the RMB exchange rate

As there was an appreciation of the exchange rate of RMB to USD in 2017, the RMB depreciation pressure was reduced. In the offshore NDF market, 1-year term USD/RMB exchange rate closed at 6.6600, which meant that there was an implied RMB depreciation of 1.89% in the coming year in the overseas market. The USD/RMB exchange rate for 2016 closed at 7.3240, the implied depreciation was as high as 5.28%.

5.2.5 Less market concern over significant RMB fluctuation

At the end of 2017, the implied fluctuation rate of 1-year term options was 4.50%, down 0.67% year on year, which reflected that the appreciation trend of RMB to USD was getting clear, and there was less market concern over significant fluctuation of RMB exchange rate.

5.3 Innovation and institutional development of exchange rate derivatives market

5.3.1 C-trade function and better trading varieties

At the end of 2016, the automatic matching of potential orders for C-trade was launched. Since the introduction, the number of potential bridge institutions had been increased with significant improvement of market liquidity, which solved the problem of restricted transactions due to bank credit and further explored and met the demand for potential transactions of the participants. In May 2017, the iceberg order function for C-trade was introduced. This function allowed member banks to input orders involving large quotation quantity without affecting the whole market volume to protect members' interests and avoid the impact on huge orders in the market. During the year, C-trade also included functions such as Excel batch upload quotation, setting of trading parameters, control over the movement of order price, in order to provide convenience to members to engage in trading. At the same time, the trading varieties of C-Swap were further enriched, a total of 5 standard terms such as 4 month, 18 month, 2 year and 8 forward to forward swap trading varieties such as 1M×2M, 3M×6M, 6 M×12M were added to meet the trading demand of the trading entities.

5.3.2 Improvement of the sequence of trading offsetting and trading confirmation products

In May 2017, with the efforts of State Administration of Foreign Exchange, CFETS organized the first round of foreign exchange options offsetting business in the interbank foreign exchange market. At the same time, foreign exchange swap offsetting business became common, CFETS organized a total of six rounds of foreign exchange swap offsetting in a year, with accumulated offset contracts of 361 at US$6.67 billion. CFETS also improved the foreign exchange swap offsetting function to further facilitate the participation of market institutions in foreign exchange derivatives offsetting business. In November 2017, CFETS further introduced the interbank currency swap confirmation service. At present, a total of 32 institutions participated in currency swap confirmation business and the sequence of foreign exchange market trading confirmation products was further improved.

5.3.3 Further enhancement of foreign exchange options function

In the new platform's (CFETS FX2017) Phase One, improvement had been made to foreign exchange option function from trading, spreadsheet and display of market situation. The new platform was able to provide various vitality models and interpolation spreadsheet, among which, vitality models include SABR,Vanna-Volga,Linear and Spline, while interpolation includes Loglinear, Linear and Cubic Spline. The new platform also provided the market situation of options and transaction display function so that members would find it easier to check and calculate option transactions and authority management. The new addition also included non-USD currency spreadsheet function for checking and operating batch exercise for members to estimate the amount and the option exercise.

6. OTC commodity derivatives market

6.1 The operation status of OTC commodity derivatives market

In January 2017, OTC commodity derivatives market launched China's first OTC CNY carbon emission derivatives product, i.e. Shanghai Emission Allowance Forward (hereafter SHEAF). So far, OTC commodity derivatives market has launched 14 products[1], covering six industries, including energy, chemical industry, ferrous metal, non-ferrous metal, freight and carbon emission. In 2017, influenced by macroeconomic and other factors, OTC commodity derivatives clearing volume incurred a significant decrease. OTC commodity derivatives central clearing volume reached RMB 47.664 billion, and the number of monthly contracts cleared (unilateral) was 467.4 thousand. The number of market participants increased 100 compared to last year, reaching 582.

In 2017, freight derivatives' prices moved divergently. Energy derivatives' prices rose with fluctuation. Non-ferrous metal derivatives' prices remained upgoing. Ferrous metal derivatives' prices evolved in concussion. Chemical derivatives' prices recovered after decreasing. Carbon emission derivatives' prices fell after increasing.

6.2 Advancing the development of the carbon derivatives market, promoting green finance growth

In January 2017, Shanghai Clearing House launched SHEAF central counterparty clearing service jointly with Shanghai Environment and Energy Exchange, forming a nationwide replicable, propagable, and standard central counterparty clearing service and risk management model. It is helpful to implement China's strategic goal of low-carbon economic development, to develop China's green finance market, to satisfy real economy's diversified needs. It is beneficial for systemic risk prevention and the promotion of the standard and stable development of China's carbon emission market.

7. Prospects of derivatives market

7.1 Playing an active role in prevention of financial risk and support for the real economy

In 2018, the global monetary policies and

1 Product name: CNY FFA: CNY Forward Freight Agreement; CIS: CNY Iron Ore Swap; CSS: CNY Steam-Coal Swap; FCP: Free Trade Zone Copper Premium Swap; CSM: CNY Styrene Monomer Swap; EMEG: Free Trade Zone Mono Ethylene Glycol Swap; CS: CNY Container Swap, including WCS (Container Swap from Shanghai to US West Coast) and ECS (Container Swap from Shanghai to Europe) ; CFFA: CNY Coal Forward Freight Agreement, including SCF (Coal Forward Freight Agreement from Qinhuangdao to Shanghai, 40,000~50,000 DWT) and GCF (Coal Forward Freight Agreement from Qinhuangdao to Guangzhou, 50,000~60,000 DWT) ; CUS: CNY Copper Swap; SHEAF: Shanghai Emission Allowance Forward.

economic environment have undergone changes. The domestic deleveraging and supply-side reforms continue to advance, and regulatory policies such as liquidity risk management and new asset management regulations will gradually come to the force. The market-oriented reform of the RMB exchange rate and interest rates will continue to deepen. Financial markets face greater uncertainties, entities' demand for hedging against exchange rate risks and interest rate risks and other market risks will continue to increase, and the important role of derivatives in actively managing and hedging risks will become more apparent. In this context, the variety of market participants and trading strategies will be more diversified, and market transactions are expected to be more active. On the other hand, with the gradual expansion of China's credit bond market and the increasing number of credit risk incidents, market participants will have greater demand for credit derivatives to management credit risk. The in-depth development of the credit derivatives market will further improve the credit pricing mechanism in the market, coordinating with the existing credit rating system, which will promote the healthy and stable development of the bond market, thereby further reducing the cost of real economy financing and improving the efficiency of resource allocation.

7.2 Product innovation and market development will be promoted continuously

In 2018, the product innovation in the derivatives market will continue and the existing categories of products will be further improved. Market participants will have more diversified options in their risk hedging activities. For interest rate derivatives, RMB interest rate options, collar options, etc. will be launched. For exchange rate derivatives, customized option portfolios and standard options based on bilateral credit line and automatic matching (click to deal) (C-Option) will be launched. Meanwhile, the market trading mechanisms will continue to be optimized. The various functions of the X-Swap and C-Trade trading systems will be further improved, including improving the display, pricing, trading, and quotation of option quotes, enriching the order submission method in C-Trade, optimizing the quotation for contracts with odd dates in C-Trade, and reducing the bid-ask spreads, as well as introducing the Excel quoting tools and C-Forward trading interface, etc. Market services will also be further improved. The interest rate curve and the option volatility surface will be further refined to facilitate market participants' pricing and valuation of related products and to enhance trading quotes. The scope of the post-trade services will be further expanded. The foreign exchange swap unwinding services will be introduced as soon as possible to provide complementary services such as unwinding calculation and contract valuation for foreign exchange derivatives. The construction of the legal system of derivatives market will continue to be promoted, to gradually solve the problem of legislating confirmation such as close-out netting. By strengthening supervision and self-discipline supervision, the awareness of market participants to protect rights and resolve dispute through legal means is enhanced.

7.3 Construction of financial market infrastructure will be further improved

Based on the OTC derivatives market reform consensus reached at the G20 Pittsburgh Summit in 2009, the United States, the European Union and other international regulatory entities have gradually implemented the margin rules for non-cleared derivatives. With the development of China's OTC derivatives market and gradual improvement of market participants' mark-to-market valuation infrastructure, the regulator will consider making the margin rule for China's non-cleared OTC derivatives in due course, which requires both sides of each transaction to post margins to cover risk exposures and manage counterparty credit risk, thereby reducing systematic risks in the OTC derivatives market and facilitating central clearing. At the same time, we need to further improve the supporting policies for the central counterparty clearing mechanism, expand the application of the central counterparty clearing mechanism, and gradually include appropriate OTC derivatives into central clearing to effectively manage risks in the market and ensure smooth and efficient operation of the financial market.

BOX 6 The Launch of CDS and CLN helps to enhance the credit risk dispersing and sharing mechanism for chinese bond market

1. The history of CRM market

In October 2010, under the guidance of the PBC, NAFMII released the Guidelines for the Pilot Credit Risk Mitigation (CRM) in Interbank Market (NAFMII Announcement〔2010〕No.13). The CRM, which includes Credit Risk Mitigation Agreement (CRMA) and Credit Risk Mitigation Warrant (CRMW), fills the gap of Chinese credit derivatives market. However, due to the development progress of Chinese financial market at that time, the demand for credit derivatives was insufficient, and the development of the credit derivatives market was slow.

With the end of the "zero default" phenomenon of corporate bond market in 2014, as well as six banks were approved by the China Banking Regulatory Commission to apply Basel New Capital Accord, market conditions and regulatory environment have changed. In order to further support the development of the real economy and improve the market's credit risk dispersing and sharing mechanism, on September 23, 2016, NAFMII revised and issued the Business Rules for Pilot Credit Risk Mitigation in Interbank Market (NAFMII Announcement〔2016〕No. 25) (hereinafter referred as CRM Rules) and Basic Terms and Applicable Rules for Chinese OTC Credit Derivatives (2016 Edition) (NAFMII Announcement〔2016〕No.30), introduced two innovative products, Credit Default Swaps (CDS) and Credit-Linked Notes (CLN) while retaining *the CRMA and CRMW, moderately broadened the participation of CRM market, and simplified CRM transaction procedures.*

2. The further development of CRM market

At present, China's economy is undergoing a period of growth shifts; the volatility of the bond market has increased and corporate bond default occurred occasionally. The further development of CRM market is the internal demand for the continuous deepening of the development of Chinese financial market, as well as the inevitable result of continuously increasing risk awareness among various financial institutions and their demand for risk management.

2.1 Chinese corporate bond market provide solid foundations

In recent years, Chinese bond market has achieved vigorous development in terms of scale, product variety, and participant numbers. By the end of 2017, Chinese bond market size has reached RMB 74.7 trillion (bond under depository). Among them, the development of corporate bond market has achieved a leap-forward growth. By the end of 2017, the sum of interbank bond market size and exchange bond market size had reached RMB 25.1 trillion (bond under depository). Both the significant proportional increase of corporate bond market and the diversity of issuers and investors have laid the foundation for the further development of credit derivatives market.

2.2 Demand for credit risk management has gradually increased

With continuous enrichment of corporate bond issuers, a certain amount of credit risk exposure has been accumulated while the market has expanded significantly. Due to the fact that there had been no bond default in the Chinese bond market for a long time, the need for effective credit risk management has not been fully aware of. Until the emergence of bond default in 2014 which gradually became more frequent, as well as the types of default issuers diversified, credit risk is now under the spotlight. Various investors have started to pay close attention to credit risk of corporate bond and seeking financial instruments that could effectively hedge and transfer credit risk.

3. The overview of CDS and CLN transactions

The CRM Rules revised and released in 2016 have received widespread attentions. Market participants have been actively improving their operational procedures and risk management capacities in accordance with the requirements of the CRM Rules, and have been preparing their CRM business processing systems. CDS and CLN were officially launched in the interbank market in 2016 and 2017, respectively.

On October 31, 2016, ten institutions including Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, China Construction Bank, Bank of Communications, China Minsheng Bank, Industrial Bank, China Zheshang Bank, Bank of Shanghai, and China Bond Insurance Company made CDS transactions and thus mark the launch of CDS. Subsequently, a total of 21 *participants in the interbank market conducted 24 CDS transactions in 2017, with a nominal amount of RMB 650 million. In May 2017, Agricultural Bank of China and China Bond Insurance Company respectively issued one CLN, and made disclosure on the NAFMII Comprehensive Business and Information Service Platform on April 27; made the certificate registration in Shanghai Clearing House on May 3 and 4; and traded and circulated on CFETS the next day. The nominal amount of the first batch of CLN totals RMB 50 million. Investors include China Bond Insurance Company, China Minsheng Bank, and Bank of Shanghai.*

From the launch of CDS and CLN in 2016 to the end of 2017, there were 43 CDS transactions with a total notional amount of RMB 1.02 billion in the interbank market. The reference entities are from different industries including energy, transportation, public infrastructure, telecommunication, agriculture and forestry, metal, construction, wholesale and retail, etc. The trading terms are mainly short-term, including 41 transactions are for 1 year and below, and 2 transactions are for 1~2 years. Two CLN were issued, with a nominal amount of RMB 50 million. The reference entities are from energy and urban construction industries with both trading terms less than one year.

4. Prospects of CDS and CLN in the Chinese market

CDS and CLN, as the innovative products of CRM, have made new progress in product design compared with CRMA and CRMW. The scope of protection has expanded from the original single debt to the reference entity. And the terms of transaction documents were revised to in line with the Administrative Measures for the Capital of Commercial Banks (for Trial Implementation) (CBRC Order〔2012〕No.1) and other regulations, in order to meet the requirements for capital mitigation of commercial banks.

4.1 Active credit risk management to increase the support for the real economy

By using CDS and CLN, market participants can separate credit risks in financial products such as corporate bonds from other risks and manage them separately. Because different types of market participants have different risk preferences and information advantages, they can make full use of their own advantages to identify and measure the credit risk of different issuers. On the one hand, by hedging credit risk, institutions can effectively reduce the credit risk exposure to a single issuer. On the other hand, by the accurate identification, measurement and pricing of credit risk, CDS and CLN can be used to effectively contribute to the price discovery and promote a healthy and stable development of the bond market, thereby further reducing the financing cost of the real economy and improving the efficiency of resource allocation.

4.2 Enrich capital management tools to improve the efficiency of commercial bank capital

According to the Administrative Measures for the Capital of Commercial Banks (for Trial Implementation), by using the credit derivatives such as CDS and CLN, commercial banks can *mitigate capital by meeting certain requirements, thereby achieving refined management of credit risk, easing capital pressure, and increasing capital efficiency.*

According to the Administrative Measures for the Capital of Commercial Banks (for Trial Implementation), commercial banks can use the Internal Rating-based Approach to assess risk assets with the approval of the regulatory authorities, and apply their own internal rating system to calculate risky assets. Under the Internal Rating-based Approach, CDS can be identified as a qualified credit derivative when calculating risk capital, thereby enable the commercial banks to better hedge credit risks, manage capital, reduce capital constraints, and improve capital efficiency.

4.3 Improve the credit risk concentration of financial institutions

Commercial banks and other financial institutions generally tend to conduct business with local and familiar clients due to geographical and man power constraints. This business model could lead to excessive concentration of credit risks on a single geographical or a single client. Through the use of CDS and CLN, concentrated credit risks can be transferred, and thereby achieving the dispersing and sharing of credit risks.

Appendix I Highlights of China's Financial Market Development, 2017

On January 20, the general office of the State Council issued the *Notice on standardizing the Development of Regional Equity Market* (〔2017〕No.11) to further improve the multi-layered capital market system.

On January 20, the Ministry of Finance (MOF) issued the *Administrative Rules for Supporting Operations of the Market Making of Treasury Bonds* (〔2017〕No.26).

On February 17, China Securities Regulatory Commission (CSRC) issued *Q&A: the Regulatory Requirements for Guiding and Standardizing the Financing Activities of Listed Companies*, and revised some provisions of *the Operational Rules for the Private Equity Placement of Listed Companies* to further improve the rules of private placement and refinancing of the listed companies.

On February 20, Xingye Wanxin Yuejia REITs, the first public placed REITs in the inter-bank market, was successfully launched with a total amount of RMB 553.5 million.

On February 22, China Banking Regulatory Commission (CBRC) released *the Guideline for the Depository of Internet Borrowing and Lending* (〔2017〕No.21).

On February 27, the State Administration of Foreign Exchange (SAFE) issued *the Notice On the Risk Management of Foreign Exchange for Overseas Institutional Investors in the Interbank Bond Market* (〔2017〕No.5), allowing overseas institutional investors in the interbank bond market to trade RMB derivatives against foreign exchanges with qualified domestic financial institutions.

On March 2, the CSRC issued *the Guidance on Supporting the Development of Green Bonds* (〔2017〕No.6). On the same day, China Central Depository & Clearing Co., Ltd. (CCDC) signed a memorandum of Understanding with the Clearstream Banking S.A. to initiate the preparations for cross-border interconnection.

On March 7, the Citi Fixed Income Indices Department indicated announced that Chinese onshore bonds will be included in its three government bond indices, namely the Emerging Markets Government Bond Index, the Asian Government Bond Index and the Asia Pacific Government Bond Index.

On March 16, UC RUSAL successfully issued its first RMB bonds on the Shanghai Stock Exchange, with a period of 2+1 years and the amount of RMB 1 billion. This is the first Panda Bond issued by enterprises of countries along *the Belt and Road*.

On March 17, the Securities Association of China issued *the Guidelines for the trustees of Corporate Bonds to Deal With Default Risks of Corporate Bonds* (〔2017〕No.44). On the same day, the Shanghai Stock Exchange and Shenzhen Stock Exchange respectively issued *the Guidelines for the Management of Credit Risks in the Duration of Corporate Bonds (Interim)*, and established a credit risk management system with bond issuers and trustees as the core.

On March 20, the first contract of pledged repo by the China Development Bank (CDB) and Shengjing Bank that borrowed RMB with the pledge of foreign currency bonds, was successfully settled.

On March 22, National Association of Financial Market Institutional Investors issued *the Guidelines on Green Debt Financing Tools for Non-Financial Enterprises* (〔2017〕No.10).

On March 31, the soybean meal options contracts was listed for trading on the Dalian Commodity Exchange.

On April 7, CCDC released *the Guidelines for Access Criterion and Discount Coefficient Of Standard Tickets* (〔2017〕No.47), specifying the access criterion of incremental corporate debt with the rating of AAA for debts and AA for issuers.

On April 9, Shanghai Gold futures contract was listed on the Dubai Gold and Commodity Exchange.

On April 11, the first three PPP-backed securities were listed on the Shanghai Stock Exchange.

On April 12, the first green trust asset-backed note in 2017 (phase 1) of Beijing Enterprises Water Group (China) Investment Co., Ltd., China's first green asset backed note, was successfully registered in the National Association of Financial Market Institutional Investors.

On April 14, the Shanghai Stock Exchange and Shenzhen Stock Exchange announced the revisal of the *Implementation Rules for Bond Transactions in Exchanges*, which further improved the repo rate formation mechanism; smoothed the volatility of repo rate, and solved the problem of "holiday effect", coming into force on May 22, 2017.

On April 19, the sugar options contract was listed for trading on the Zhengzhou Commodity Exchange.

On April 21, the medium-term notes (2017, Phase 1) of China Merchants Port, China's first medium-term Panda Bonds for the *Belt and Road* construction, were successfully issued in the national inter-bank bond market.

On April 26, the MOF and five other departments jointly released the *Notice on Further Standardizing the Financing Behavior of Local Governments* (〔2017〕No.50), to comprehensively organize the rectification of financing guarantee of local governments, strengthen the management of financing platforms, standardize cooperation between local governments and social capital, and further improve a standardized local government borrowing and financing mechanism.

On May 3, CSRC issued *the Provisional Rules for the Supervision and Management of Regional Equity Markets* (CSRC Decree〔2017〕No.132), coming into force on July 1, 2017. On the same day, Agricultural Bank of China and China Debt Credit Enhancement Company created a credit-linked notes respectively, indicating that the first credit-linked notes officially launched in the interbank market.

On May 8, the first special debt-financing instrument for entrepreneurship and innovation of the Chengdu Hi-tech Investment Group Co., Ltd. (2017, Phase 1), the first special debt-financing instrument for entrepreneurship and innovation, was launched on book building. On the same day, the *Guidelines for China's Foreign Exchange Market* (〔2017〕No.5) was released by the Self-Disciplinary Mechanism of China's foreign exchange market.

On May 15, the people's Bank of China (PBC) announced the establishment of the Financial Science and Technology (Fintech) Committee.

On May 16, the PBC and the Hong Kong Monetary Authority (HKMA) jointly announced an agreement on establishing mutual bond market access between Hong Kong and Mainland China (referred to as Bond Connect) by the China Foreign Exchange Trade System (CFETS) & National Interbank Funding Centre (NIFC), CCDC, Shanghai Clearing House (SCH), together with Hong Kong Exchanges and Clearing Limited (HKEX) and Central Moneymarkets Unit. On the same day, the MOF and the Ministry of Land and Resources jointly issued a notice on the *Administrative Rules on Local Government's Land Reserve Special Bonds* (Interim) (〔2017〕No.62).

On May 26, 17 Yang Pu S1, the first small public-offered corporate bond for entrepreneurship and innovation in the exchange market, was listed on the Shenzhen Stock Exchange.

On May 26, CFETS announced the introduction of counter-cyclical factor in the RMB/USD central parity exchange rate pricing model. The central parity rate of RMB against the US dollar will be jointly determined by the closing price of the previous trading day, the exchange rate change of a basket of currencies and the counter-cyclical factor.

On May 26, CFETS completed the first write-off of foreign exchange options in China's interbank market, with a termination of 114 options contracts and a total amount of USD ＄4.063 billion. This is the first business of its kind on China's interbank market.

On June 2, the MOF issued *the Notice on the Pilot Development of Local Government Special Bonds with The Balance of Revenue and Financing* (〔2017〕No.89).

On June 6, the first DVP delivery service was successfully completed on the treasury bond futures market, which was a major progress in the delivery mechanism of the treasury bond futures market and the interconnection of the futures and spot markets.

On June 7, the MOF, the PBC and the CSRC jointly issued *Notice on Standardizing the Asset Securitization of Cooperative Projects between Government and Social Capital* (〔2017〕No.55).

On June 7, the CFETS and the HKEX announced the establishment of a joint venture company in Hong Kong, the Bond Connect Co. Ltd.

On June 8, five ministries and commissions, including the PBC, CBRC, CSRC, China Insurance Regulatory Commission (CIRC) and the Standardization Administration, jointly issued *the Construction and Development Plan for the Standardization of the Financial Industry (2016—2020).*

On June 15, the MOF issued the *Notice on Relevant Issues of the Operations in Support of Treasury Bonds Market-Making* (〔2017〕No.106), deciding to carry out the supportive operations of treasury bonds market-making.

On June 20, the MOF conducted operations in support of treasury bonds market-making for the first time, carrying out a purchasing operation with an amount of RMB 1.2 billion on the one-year 17 coupon-bearing bond 09.

On June 21, the PBC promulgated its Decree No.1〔2017〕, formulating and issuing the *Provisional Rules on the Mutual Bond Markets Access between Hong Kong and Mainland China*.

On June 21, the MSCI announced to include China's A share into the MSCI Emerging Market Index.

On June 26, the MOF and the Ministry of Transport jointly published *the Administrative Measures on Special Bonds for Local Tollway (Interim)* (〔2017〕No.97), coming into force on the day of issuance.

On June 28, the CSRC released the *Administrative Rules on the Appropriateness of Securities and Futures Investors*, coming into force on July 1.

On June 29, the NIFC, CCDC and SCH jointly issued the *Joint Notice on the Extension Of Settlement Period for Bond Transactions Of Overseas Institutional Investors.*

On July 1, the PBC published Public Notice 〔2017〕No.7), stipulating relevant issues on credit rating by overseas credit rating agencies on the interbank bond market.

On July 2, the PBC and the HKMA issued a joint announcement, approving CFETS&NIFC, CCDC, SCH, together with HKEX and Central Moneymarkets Unit to launch mutual bond market access between Hong Kong SAR and Mainland China (Bond Connect). Trial operation of Northbound Trading would commence on 3 July 2017.

On July 3, Agricultural Development Bank of China issued policy financial bonds at an amount of RMB 16 billion through the PBC bond issuance system to global investors, indicating the successful launch of the first Bond Connect.

On July 3, five enterprises, including Huaneng Group, Three Gorges Group, China Unicom, Aluminum Corporation of China Limited (CHALCO) and State Power Investment Co. Ltd. (SPIC), issued bonds to domestic and overseas investors as "pilot issuer of the first day". All first-day projects were successfully booked by July 6 with a total amount of RMB 7 billion.

On July 4, the CDB successfully issued Bond Connect financial bonds with an amount of RMB 20 billion to global investors.

On July 4, the CSRC released the *Guidance on the Pilot Bonds Issued by Entrepreneurship and Innovation Companies* (〔2017〕No.10).

On July 15, the Office of the State Council Financial Stability and Development Committee was established.

On July 26, Hungary successfully issued a 3-year RMB bonds with a total amount of RMB 1 billion in China's interbank bond market. This is the first bookkeeping RMB bond issued by foreign sovereign governments for domestic and overseas investors under the Bond Connect.

On August 1, General Office of the National Development and Reform Commission released notices on the *Guidelines on Issuance of Special Bonds for Public Sectors* (〔2017〕No.1340) and *Guidelines on Issuance of Special Bonds for Integrated Development of Rural Industries* (〔2017〕No.1341).

On August 11, CFLD Gu'an New Urbanization PPP-ABN was successfully launched, the first PPP asset securitization project on the interbank market.

On Auguse 11, CFETS launched regional trading between RMB and Mongolia Tugrik on the interbank market.

On August 18, Cotton yarn futures contracts were listed on the Zhengzhou Commodity Exchange.

On August 22, Fuyuan personal vehicles mortgage backed securities (2017, phase II) was successfully issued, the first asset backed securities in the interbank market with overseas investors involved under the Bond Connect (northbound trading).

On August 29, the MOF announced that special treasury bonds were issued for banks with an amount of RMB 600 billion, with the term of 7 years and 10 years. All the special treasury bonds were issued on roll-over.

On August 31, the PBC announced that, the term for inter-bank certificates of deposit should not exceed one year, and 2-year/3-year inter-bank certificates of deposit would not be issued any more, but existing inter-bank certificates of deposit with a term more than one-year (not included) could be hold to maturity.

On September 4, the PBC, the Office of the Central Cyberspace Affairs Commission (CAC), the Ministry of Industry and Information Technology (MIIT), the State Administration for Market Regulation (SAIC), CBRC, CSRC and CIRC jointly issued a public notice on preventing risks of fundraising through coin offering.

On September 8, the CSRC adjusted the issuance of convertible bonds and exchangeable bonds, and revised the *Administrative Measures on Securities Issuance and Underwriting* (CSRC Decree〔2017〕No.135).

On September 12, the CDB issued green financial bonds on pre-issuance for water resources protection of the Yangtze River Economic Belt on the interbank bond market.

On September 13, the CFETS launched regional trading for RMB against Cambodian Riel on the interbank market.

On September 18, Shaanxi Financial Asset Management Co., Ltd. issued a special debt-to-equity bond with an amount of RMB 500 million, the first of its kind in China.

On September 22, the CSRC revised *Code No.26 of Content and Format of Information Disclosure for Public Listed Companies: Material Asset Restructuring of Listed Companies (Revised in 2014)* (Public Notice [2014] No.53 of the CSRC), further improving information disclosure rules of merger and acquisition.

On September 22, Shanghai Stock Exchange and Shenzhen Stock Exchange, National Equity Exchange and Quotations, and China Securities Depository and Clearing Corporation Limited (CSDC) jointly released the *Implementation Rules for the Private Issuance of Convertible Corporate Bonds by Entrepreneurship and Innovation Companies (Interim).*

On September 25, the CFETS launched the lending transactions of GBP against Canadian dollar.

On September 30, the PBC decided to implement the policy of the targeted required reserve ratio cut to inclusive finance, to be effective from 2018.

On October 9, the CFETS launched simultaneous settlement service of RMB against Ruble with High Value Payment System, which marked the official establishment of the mechanism for simultaneous settlement of RMB against foreign currencies.

On October 16, the first round of convertible bonds for Entrepreneurship and Innovation was issued on Shanghai Stock Exchange.

On October 18, the project income backed bond issued by Yanan Cultural Tourism Industry Investment Co., Ltd. of Shaanxi Tourism Group, the first of its kind in China, was successfully listed and transferred on Shanghai Stock Exchange.

On October 19, local government bonds with an amount of RMB 37 billion were issued in Anhui and Yunnan provinces. In particular, two bonds issued in Yunnan province were roll-over ones. This was the first time that local governments rolled over local bonds.

On October 23, Zhonglian Qianhai Kaiyuan-Poly Housing Rentals REITS NO. 1 asset-backed special plan, China's first SOE rental housing REITs and first shelf-distributed REITs, got approval from the Shanghai Stock Exchange.

On October 26, the CDB tried to issue incremental financial bonds in the way of fixed price offer on the Shenzhen Stock Exchange, a pilot issuance by the CDB in domestic bond market.

On October 27, the PBC carried out reverse repo operation with an amount of RMB 140 billion in the way of interest rate bidding. In particular, the the successful bid rate of 63-day reverse repo of RMB 50 billion was 2.90%. This was the first 63-day reverse repo operation by the central bank on the open market, which was also the reverse repo operation with the longest maturity till now.

On November 3, the Supreme People's Court of Guizhou Province made a final adjudication to maintain the criminal judgment made by the Guiyang Intermediate People's Court on the fraud issuance of private placed bonds by Xiamen STDAWEE Costumes Co., Ltd. (hereinafter referred to as STDAWEE). Zhang, legal representative of STADWEE and Hu, former CFO of STDAWEE were sentenced three years and two years in prison respectively. This was the first case of criminal liability for fraud issuance of private placed bonds in China, which was of great significance to deter the crime in the field of bonds and maintain the healthy and stable development of bond market.

On November 9, the PBC issued the *Procedure for Overseas Commercial Institutional Investors Entering the Interbank Bond Market of China*. All kinds of overseas institutional investors could carry out cash bond trading on the interbank bond market at current stage, as well as bond lending and borrowing, bond forward, forward interest rate agreement and interest rate swap on the basis of hedging demand. Overseas RMB business clearing banks and participating banks could also carry out bond repo transactions on the interbank bond market.

On November 17, the PBC, CBRC, CSRC, CIRC, and SAFE jointly released *Guidelines on Regulating the Asset Management by Financial Institutions* (for public comment).

On November 22, the CBRC issued the *Notification on Regulating Bank-Trust Cooperation Business* (〔2017〕No.55).

On November 28, the CFETS launched write-offs for currency swap in the interbank market.

On December 1, the Shanghai Stock Exchange, Shenzhen Stock Exchange and CSDC jointly released the *Operational Rules for the Front-End Risk Control of the Securities Transaction Funds* and relevant rules, to be effective on June 1, 2018.

On December 11, 2017 Shenzhen Rail Transit Special Bond (Phase I),the first special bond for rail transit in China, was successfully issued on the Shenzhen Stock Exchange.

On December 15, the CBRC released the *Regulation on the Agricultural Development Bank of China* (CBRC Decree〔2017〕No.2), *Regulation on the Export-Import Bank of China* (CBRC Decree〔2017〕No.3), and *Regulation on the China Development Bank* (CBRC Decree〔2017〕No.4).

On December 18, the National Development and Reform Commission published the notice on the *Construction Plan for the National Carbon Trading Market (Power Generation Industry)* (〔2017〕No.2191).

On December 22, apple futures contracts were listed on the Zhengzhou Commodity Exchange. On the same day, the CBRC released the *Notification on Regulating the Bank-Trust Cooperation Business*.

On December 27, the PBC and CSRC jointly released the *Guidelines for the Assessment and Certification of Green Bonds* (Interim) (〔2017〕No.20).

On December 28, the special corporate bond for housing rentals applied by Chongqing Longhu Enterprise Development Co., Ltd. was approved by the CSRC, which marked the official launch of the first special public placed housing rentals corporate bond in China.

On December 29, the PBC decided to establish the Contingent Reserves Allowance (CRA) to make it possible for a nationwide commercial bank that accounts for a considerable proportion of cash injections to use up to 2 percentage points of the required reserves for 30 days when confronting contingent liquidity gaps around the period of the Spring Festival in 2018.

On December 29, the PBC, the CBRC, the CSRC, and the CIRC jointly released the *Notice on Regulating Bond Transactions by Bond Market Participants* (PBC〔2017〕No.302).

On December 29, the CBRC released the *Rules on the Capital Management of Financial Asset Management Companies* (Interim) (〔2017〕No.56).

Appendix II China Financial Market Statistics

Table 1 Major macroeconomic and financial indicators, 2000—2017 (Year-end Balance)

Item	2000	2001	2002	2003	2004	2005	2006	2007
Gross domestic product (GDP)	99,215	109,655	120,333	135,823	159,878	184,937	216,314	265,810
Growth rate	8.4	8.3	9.1	10	10.1	10.4	12.7	14.2
Exports & imports (US$100 million, RMB 100 million)	4,743	5,097.7	6,208	8,512	11,547	14,221	17,607	21,738
Growth rate	31.5	7.5	21.8	37.1	35.7	23.2	23.8	23.5
Exports (US$100 million, RMB 100 million)	2,492	2,661	3,256	4,384	5,934	7,620	9,690	12,205
Imports (US$100 million, RMB 100 million)	2,251	2,436.1	2,952	4,128	5,614	6,601	7,915	9,561
Foreign exchange reserves (US$100 million)	1,655.7	2,121.7	2,864	4,033	6,099	8,189	10,663	15,282
Foreign direct investment (US$100 million)	408	468.5	527	535	606	603	694.7	747.7
Fiscal revenue	13,380.1	16,371	18,914	21,691	26,355.9	31,628	38,760.2	51,304
Fiscal expenditure	15,879.4	18,844	22,012	24,607	28,360.8	33,708.1	40,222.7	49,565.4
Deficit/surplus	-2,499.3	-2,473	-3,098	-2,916	-2,004.9	-2,080.1	-1,462.5	1,738.6
Money supply (M2)	134,610.3	158,301.9	185,007	221,222.8	254,107	296,040.1	345,577.9	403,401.3
Growth rate	12.3	17.6	16.9	19.6	14.9	16.5	16.7	16.7
Money supply (M1)	53,147.2	59,871.6	70,822	84,118.6	95,969.7	107,279.9	126,028.1	152,519.2
Growth rate	15.9	12.7	18.3	18.8	14.1	11.8	17.5	21.0
Money supply (M0)	14,652.7	15,688.8	17,278	19,746	21,468.3	24,032.8	27,072.6	30,334.3
Growth rate	8.9	7.1	10.1	14.3	8.7	11.9	12.6	12
Per capita disposable income of urban residents (RMB)	6,280	6,859.6	7,703	8,500	9,422	10,493	11,759	13,786
Real growth rate	6.4	8.5	13.4	9	7.7	9.6	10.4	12.2
Net income of rural residents (RMB)	2,253	2,366	2,475.6	2,622	2,936	3,255	3,587	4,140
Real growth rate	2.1	4.2	4.8	4.3	6.8	6.2	7.4	9.5
Total deposits with financial institutions	123,804.4	143,617.2	170,917.4	208,055.6	241,424.3	300,208.6	348,015.6	401,051.4
Growth rate	13.8	16.0	19.0	21.7	16.0	24.3	15.9	15.2
Total loans by financial institutions	99,371.1	112,314.7	131,293.9	158,996.2	178,197.8	206,838.5	238,279.8	277,746.5
Growth rate	6.0	13.0	16.9	21.1	12.1	16.1	15.2	16.6
Consumer price index (CPI)	0.4	0.7	-0.8	1.2	3.9	1.8	1.5	4.8

Notes: 1. Past data have been adjusted according to latest statistical releases.

2. From 2009 onwards, the total value of exports and imports, the value of imports, and the value of exports are denominated in RMB .

Sources: National Bureau of Statistics of China, People's Bank of China and Ministry of Finance of the People's Republic of China.

Units: RMB 100 million, %

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
314,045	340,903	408,903	484,124	534,123	595,244	643,974	689,052	743,585	8,27122
9.6	9.2	10.6	9.5	7.7	7.8	7.3	6.9	6.7	6.9
25,616	22,073	20,1723	236,402	244,160	258,168	264,242	245,503	243,386	2,77923
17.8	-13.9	34.7	17.2	3.2	5.7	2.39	-7	-0.9	14.2
14,307	12,016	107,023	123,241	129,359	137,131	143,884	141,167	138,419	153,321
11,326	10,059	94,700	113,161	114,801	121,037	120,358	104,336	104,967	124,602
19,460	23,992	28,473	31,811	33,116	38,213	38,430	33,304	30,105	31,399
924	900	1,057	1,160	1,117	1,176	1,196	1,263	1,260	1,310
61,330	68,518	83,102	103,874	117,254	129,210	140,370	152,269	159,605	172,567
62,593	76,300	89,874	109,248	125,953	140,213	151,662	175,768	188,793	203,330
-1,263	-7,782	-6,772	-5,374	-8,699	-11,003	-11,312	-23,499	-29,188	-30,763
475,166.6	606,223.6	725,851.79	851,590.9	974,148.8	1,106,524.98	1,228,374.81	1,392,278.11	1,550,066.67	1,676,768.54
17.8	27.6	19.7	13.5	14.4	13.6	11	13.3	11.4	8.2
166,217.1	220,004.5	266,621.54	289,847.7	308,664.2	337,291.05	348,056.41	400,953.44	486,557.24	543,790.15
9.0	32.4	21.2	7.9	6.5	9.3	3.2	15.2	21.4	11.8
34,218.96	38,245.97	44,628.17	50,748.46	54,659.77	58,574.44	60,259.53	63,216.58	68,303.87	70,645.6
12.8	11.8	16.7	13.8	7.7	7.1	2.9	4.9	8.1	3.4
15,781	17,175	19,109	21,810	24,565	26,955	28,844	31,195	33,616	36,396
8.4	9.8	7.8	8.4	12.6	9.7	6.8	6.6	5.6	8.3
4,761	5,153	5,919	6,977	7,917	8,896	9,892	11,422	12,363	13,432
8	8.5	10.9	11.4	13.5	9.3	11.2	7.5	6.2	7.3
478,444.2	612,005.1	733,382.03	826,701.35	943,102.27	1,070,587.72	1,173,734.59	1,397,752.11	1,555,247.07	1,692,727.15
19.3	27.9	19.8	12.7	14.1	13.5	9.6	19.1	11.3	8.8
320,048.7	425,622.6	509,225.95	581,892.5	672,874.61	766,326.64	867,867.89	993,459.69	1,120,551.79	1,256,073.74
15.2	33.0	19.6	14.3	15.6	13.9	13.3	14.5	12.8	12.1
5.9	-0.7	3.3	5.4	2.6	2.6	2	1.4	2.0	1.6

Table 2 Composition and growth of RMB and foreign currency deposits and loans, 2000—2017 (Year-end Balance)

Item	2000	2001	2002	2003	2004	2005	2006	2007
Total deposits with financial institutions	123,804	143,617.2	170,917.4	208,055.6	241,424.3	300,208.6	348,015.6	401,051.4
YoY growth	13.8	16.0	19.0	21.7	16.0	24.3	15.9	15.2
of which: Deposits of urban & rural residents	64,332.4	73,762.4	86,910.7	103,617.7	119,555.4	147,053.7	166,616.2	176,213.3
YoY growth	7.9	14.7	17.8	19.2	15.4	23.0	13.3	5.8
Corporate deposits	44,093.7	51,546.6	60,028.6	72,487.1	84,669.5	101,750.6	118,851.7	144,814.1
YoY growth	18.6	16.9	16.5	20.8	16.8	20.2	16.8	21.8
Total loans by financial institutions	99,371.1	112,314.7	131,293.9	158,996.2	178,197.8	206,838.5	238,279.8	277,746.5
YoY growth	6.0	13.0	16.9	21.1	12.1	16.1	15.2	16.6
of which: Short-term loans	65,748.1	67,327.2	76,822.4	87,397.9	90,808.3	91,157.5	101,698.2	118,898
YoY growth	2.9	2.4	14.1	13.8	3.9	0.4	11.6	16.9
Medium and long-term loans	27,931.2	39,238.1	51,731.6	67,251.7	81,010.1	92,940.5	113,009.8	138,581
YoY growth	16.5	40.5	31.8	30.0	20.5	14.7	21.6	22.6

Source: People's Bank of China.

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
478,444.21	612,005.1	733,382.03	826,701.35	943,102.27	1,070,587.72	1,173,734.59	1,397,752.11	1,555,247.07	1,692,727.15
19.3	27.9	19.8	12.7	14.1	13.5	9.6	19.1	11.3	8.8
221,503.47	264,756.9	307,166.39	357,901.58	415,549.87	471,090.18	512,790.14	551,928.92	606,522.23	651,983.38
25.7	19.5	16.0	16.5	16.1	13.4	8.9	7.6	9.9	7.5
164,385.79	224,360	252,960.27	423,086.61	478,730.2	541,793.87	591,069.28	455,208.83	530,895.41	571,640.83
13.5	36.5	12.7	67.3	13.2	13.2	9.1	-22.9	16.6	7.7
320,048.68	425,622.6	509,225.95	581,892.50	672,874.61	766,326.64	867,867.89	993,459.69	1,120,551.79	1,256,073.74
15.2	33.0	19.6	14.3	15.6	13.9	13.3	14.5	12.8	12.1
128,571.47	151,390.7	171,236.64	217,480.1	268,152.19	311,771.97	336,371.27	359,190.66	371,286.36	405,492.17
8.1	17.7	13.11	27	23.3	16.3	7.9	6.8	3.4	9.2
164,160.4	235,591.3	305,127.55	333,746.51	363,894.2	410,345.5	471,818.36	537,832.55	634,209.87	750,130.12
18.5	43.5	29.5	9.4	9	12.8	15	14	17.9	18.3

Table 3 Outstanding loans, outstanding bonds and stock market capitalization as percentage of GDP, 2006—2017

Units: RMB 100 million, %

Year	GDP	Outstanding loans	Outstanding loans/GDP	Outstanding bonds	Outstanding bonds/GDP	Stock market cap	Stock market cap/GDP
2006	216,314	238,280	110.2	92,740	42.9	89,404.0	41.3
2007	265,810	277,747	104.5	124,470	46.8	327,140.9	123.1
2008	314,045	320,049	101.9	151,648	48.3	121,366.4	38.6
2009	340,903	425,623	124.9	176,430	51.8	243,939.1	71.6
2010	397,983	509,226	128	205,481	51.6	265,422.6	66.7
2011	471,564	581,893	123	223,786	47.5	214,758.1	45.5
2012	519,470	672,875	130	262,058	50.4	230,357.6	44.3
2013	568,845	766,327	135	296,165	52.1	239,077.2	42
2014	636,463	867,868	136	355,778	55.9	372,546.9	59
2015	676,708	993,460	147	478,978	70.8	531,304.2	78.5
2016	744,127	1,120,552	151	636,614	85.6	508,245.1	68.3
2017	827,122	1,256,074	152	740,098	89.5	567,475.4	68.6

Notes: 1. *Outstanding loans* refers to the outstanding amount of all RMB and foreign currency loans of financial institutions.
2. *Outstanding bonds* includes bonds in custody in the interbank market and on the stock exchange.

Sources: People's Bank of China, China Securities Regulatory Commission.

Table 4 Composition of incremental all-system financing aggregates, 2010—2017

Unit: RMB 1 trillion

Year	Incremental financing aggregates	RMB loans	Foreign currency loans	Entrusted loans	Trust loans	Undiscounted bank acceptances	Net bond financing by enterprises	Domestic equity financing by non-financial enterprises	Other
2010	13.94	7.86	0.49	0.88	0.39	2.34	1.11	0.58	0.29
2011	12.83	7.47	0.57	1.3	0.2	1.03	1.37	0.44	0.45
2012	15.76	8.20	0.92	1.28	1.28	1.05	2.26	0.25	0
2013	17.29	8.89	0.58	2.54	1.84	0.78	1.8	0.22	0
2014	16.41	9.78	0.36	2.51	0.52	-0.13	2.43	0.44	0
2015	15.29	11.27	-0.64	1.59	0.04	-1.06	2.82	0.76	0
2016	17.8	12.4	-0.56	2.18	0.86	-1.95	3	1.24	0.6
2017	19.44	13.84	0.0018	0.77	2.26	0.54	0.45	0.87	0.71

Source: People's Bank of China.

Table 5 Interbank funding and bond repo trading, 1997—2017

Unit: RMB 100 million

Year	Interbank funding	Pledged repo trading	Outright repo trading
1997	8,298	310	—
1998	1,978	1,021	—
1999	3,291	3,957	—
2000	6,728	15,785	—
2001	8,082	40,133	—
2002	12,107	101,885	—
2003	24,113	117,203	—
2004	14,556	93,105	1,263
2005	12,783	156,784	2,223
2006	21,503	263,021	2,892
2007	106,466	440,672	7,253
2008	150,492	563,830	17,376
2009	193,505	677,007	25,891
2010	278,684	846,533	29,402
2011	334,412	966,650	27,885
2012	467,044	1,366,174	50,966
2013	355,190	1,519,757	61,882
2014	376,626	2,124,191	120,035
2015	642,135	4,324,109	253,528
2016	959,131	5,682,693	330,335
2017	789,811	5,882,607	281,077

Source: China Foreign Exchange Trade System.

Table 6 Change in interbank funding market participants, 2000—2017

Unit: numbers

Year	Banks	Securities companies	Insurance companies	Trust companies	Finance companies	Leasing companies	Rural credit cooperatives	City credit cooperatives	Asset management companies	Auto finance companies	Consumer finance companies	Other	Total
2000	232	14	—	—	20	—	148	—	—	—	—	3	417
2001	246	18	—	—	25	—	198	—	—	—	—	3	490
2002	261	41	—	—	25	—	202	4	—	—	—	3	536
2003	289	56	—	—	32	—	229	10	—	—	—	1	617
2004	309	64	—	—	35	—	236	11	—	—	—	1	656
2005	323	66	—	—	38	—	239	12	—	—	—	1	679
2006	339	53	—	—	46	—	250	15	—	—	—	0	703
2007	326	56	—	3	49	—	267	16	—	—	—	0	717
2008	340	58	—	16	55	4	298	13	2	2	—	0	788
2009	348	65	6	26	68	6	320	9	3	3	—	0	854
2010	347	68	6	30	72	11	338	8	3	5	—	0	888
2011	347	70	7	38	77	11	369	7	4	6	—	1	937
2012	359	77	7	39	81	16	422	7	5	8	—	1	1,022
2013	368	82	9	45	98	16	482	7	5	9	—	1	1,122
2014	349	87	10	54	129	17	547	7	5	13	—	1	1,219
2015	355	90	15	57	154	20	661	7	5	16	—	2	1,382
2016	390	95	31	62	180	24	916	0	8	17	—	2	1,725
2017	497	96	43	62	213	40	973	0	8	21	3	2	1,958

Source: National Interbank Funding Center.

Table 7 Bill market, 2000—2017

Unit: RMB 1 Trillion

Year	Cumulative value of bills drawn	Cumulative value of bills discounted
2000	0.74	0.64
2001	1.28	1.55
2002	1.61	2.31
2003	2.77	4.44
2004	3.42	4.71
2005	4.45	6.75
2006	5.43	8.49
2007	5.87	10.11
2008	7.09	13.51
2009	10.27	23.16
2010	12.2	48.6
2011	15.1	25.0
2012	17.9	31.6
2013	20.3	45.7
2014	22.1	60.7
2015	22.4	102.1
2016	18.1	84.5
2017	17.0	40.3

Source: People's Bank of China.

Table 8 Spot trading and futures trading in the bond market, 2006—2017

Units: RMB 100 million, %

Year	Interbank market				Stock exchange market			
	Spot trading	YoY change (%)	OTC market trading	YoY change (%)	Spot trading	YoY change (%)	Treasury futures trading	YoY change (%)
2006	102,558.6	70.55	42.8	-34.86	1,977.83	—	—	—
2007	156,038.21	52.15	35.7	-16.59	2,051.75	3.74	—	—
2008	371,082.7	137.82	30.4	-14.85	4,294.73	109.32	—	—
2009	472,646.43	27.37	62.8	106.58	4,659.86	8.5	—	—
2010	640,418.98	35.5	41.7	-33.60	5,832.26	25.16	—	—
2011	636,422.9	-0.62	27.89	-33.12	6,839.9	17.28	—	—
2012	751,952.83	18.15	14.99	-46.25	9,852.7	44.05	—	—
2013	416,106.44	-44.66	18.72	24.88	17,387.6	76.48	3,063.89	—
2014	403,565.2	-3	71.7	283.01	27,874.4	60.31	8,785.17	186.73
2015	867,370.1	114.9	109.3	52.4	33,994.6	22	60,106.8	584.18
2016	1,270,918.3	46.5	87.6	-19.8	51,269.9	50.8	89,013.6	48.09
2017	1,028,351.7	-19.1	245	179.7	55,597.0	8.4	140,849.1	58.23

Source: People's Bank of China.

Table 9 Spot trading in the bond market, 2017

Units: RMB 100 million, %

Month	Interbank bond market					Stock exchange market		
	Spot trading	YoY change	Interbank bond aggregate index	OTC market trading	YoY change	Spot trading	YoY change	Shanghai Stock Exchange treasury bond index
Jan.	53,829.7	-42.2	116.75	3.7	85.9	3,615.9	26.6	159.71
Feb.	63,859.3	5.7	116.32	14.4	343.1	3,657.6	65.0	160.02
Mar.	89,691.9	-20.9	115.87	14.3	171.3	4,780.6	24.6	160.18
Apr.	69,993.5	-27.3	114.90	9.1	708.9	3,959.1	20.3	160.61
May	76,415.7	-23.1	113.79	7.9	8.5	4,788.9	15.6	160.15
Jun.	91,796.9	-15.2	114.79	16.4	77.2	5,283.3	40.0	160.41
Jul.	91,648.7	-20.5	114.75	22.0	295.7	4,476.6	3.7	160.36
Aug.	97,949.7	-28.7	114.28	16.9	2.9	4,934.8	-20.5	160.71
Sep.	101,985.2	-8.8	114.45	36.6	264.8	4,407.5	2.7	160.69
Oct.	81,686.3	-16.3	113.60	30.2	315.4	4,278.7	6.5	160.81
Nov.	106,247.5	-13.5	112.96	48.3	409.6	6,057.6	8.4	160.81
Dec.	103,247.3	-10.3	112.77	25.2	137.3	5,356.5	-20.5	160.85
Total	1,028,351.7	-19.11	—	245.0	179.7	55,597.0	8.4	—

Note: The *interbank bond aggregate index* refers to the clean price index of ChinaBond interbank bond aggregate index.

Sources: People's Bank of China, China Central Depository & Clearing Co., Ltd., Shanghai Stock Exchange and China Foreign Exchange Trade System.

Table 10 Bond market issuance, 2004—2017

Unit: RMB100 million

Year	Government debentures			Government-backed agency bonds	Central bank bills	Financial bonds				Interbank certificates of deposit	Corporate debentures				Asset-backed securities	International institutional bonds	Total
	Treasury bonds	Local government bonds	Sub-total			Policy bank bonds	Short-term financing bonds of securities companies	Other financial bonds	Sub-total		Debt financing instruments of non-financial enterprises	Enterprise bonds	Corporate bonds	Sub-total			
2004	7,318.8	0	7,318.8	0	17,037	4,348	0	748.8	5,096.8	—	0	326	209	535	—	—	29,988
2005	7,042	0	7,042	0	27,882	6,051.7	29	1,036.3	7,117	—	1,424	654	0	2,078	172.74	—	44,160.8
2006	8,883.3	0	8,883.3	0	36,574	8,980	0	525	9,505	—	2,919.5	995	142.9	4,057.4	280.01	—	59,135.3
2007	23,483.4	0	23,483.4	0	40,721	10,931.9	0	972.7	11,904.6	—	3,349.1	1,720	407.3	5,476.4	178.08	—	81,763.8
2008	8,546.3	0	8,546.3	0	42,960	10,809.3	0	974	11,783.3	—	6,075.5	2,367	976.5	9,419	302.01	—	73,010.6
2009	16,213.6	2,000	18,213.6	0	39,740	11,678.1	0	3,071	14,749.1	—	11,509.7	4,252	715	16,476.7	0	—	89,179.4
2010	17,778.2	2,000	19,778.2	1,090	46,608	13,192.7	0	979.5	14,172.2	—	11,863	3,627	1,320.3	16,810.3	0	—	98,458.6
2011	15,397.9	2,000	17,397.9	1,000	14,140	19,972.7	0	3,528.5	23,501.2	—	18,503.2	2,473.5	1,707.4	22,684.1	12.79	—	78,723.2
2012	14,360.4	2,500	16,860.4	1,500	0	21,399	561	4,233.7	26,193.7	—	26,547.2	6,499.3	2,722.8	35,769.3	224.42	—	80,515.9
2013	16,945	3,500	20,445	1,900	5,362	20,760.3	2,995.9	1,321	25,077.2	340	28,357.9	4,752.3	4,081.4	37,191.6	231.7	—	90,133.5
2014	17,047.3	4,000	21,047.3	2,100	0	22,900.5	4,246.9	5,459.5	32,606.9	8,985.6	41,217.6	6,952	3,483.8	51,653.4	3,220.63	—	110,201.1
2015	19,875.4	38,350.6	58,226	2,400	0	25,790.2	3,515.6	14,794.9	44,100.7	52,975.9	53,660.6	3,431	13,292.4	70,384.1	6,157.2	115	234,358.9
2016	29,457.7	60,428.4	89,886.1	2,250	0	33,529.7	1,178.6	12,717.9	47,426.2	129,931	50,297.9	5,917.7	25,770	81,985.5	8,647	1,330.4	361,456.2
2017	38,661.8	43,580.9	82,242.7	2,860	0	32,814.8	392	16,961	50,167.8	201,872.4	39,813.5	3,731	11,460.2	55,004.7	15,398.4	666	408,212

Notes: 1. *Treasury bonds* includes book-entry government bonds and electronic savings bonds.

2. *Other financial bonds* includes interbank and exchange-traded financial bonds. *Asset-backed securities* includes interbank and exchange asset-backed securities.

3. *International institutional bonds* refers to bonds issued in China by overseas institutional entities, including sovereign, quasi-sovereign institutions, and overseas financial and non-financial institutions.

Source: People's Bank of China.

Table 11 Bond custody, 2006—2017

Unit: RMB 100 million

Year	Government debentures			Government-backed agency bonds and others	Central bank bills	Financial bonds				Interbank certificates of deposit	Corporate debentures				Credit asset-backed securities	International institutional bonds	Interbank custody	Exchange custody	Total custody
	Treasury bonds	Local government bonds	Sub-total			Policy bank bonds	Short-term financing bonds of securities companies	Other financial bonds	Sub-total		Debt financing instruments of non-financial enterprises	Enterprise bonds	Corporate bonds	Sub-total					
2006	29,048	0	29,048	30	32,300	22,836	0	2,552	25,388	0	2,667	2,832	288	5,786	188	—	88,910	3,830	92,740
2007	46,503	0	46,503	30	36,587	28,784	0	3,486	32,270	0	3,203	4,422	1,131	8,756	324	—	120,102	4,368	124,470
2008	48,753	0	48,753	30	48,121	36,720	0	4,255	40,975	0	5,875	6,803	539	13,218	551	—	148,100	3,548	151,648
2009	55,411	2,000	57,411	40	42,326	44,498	0	6,454	50,952	0	13,196	10,971	1,135	25,301	399	—	172,476	3,954	176,430
2010	62,628	4,000	66,628	1,130	40,909	51,604	0	6,662	58,266	0	20,271	14,511	3,584	38,366	182	—	199,019	6,462	205,481
2011	67,839	6,000	73,839	2,130	21,290	64,778	0	9,785	74,563	0	29,047	16,799	6,023	51,869	95	—	214,260	9,526	223,786
2012	74,236	6,500	80,736	8,532	13,440	78,582	295	13,126	92,003	0	40,327	19,310	7,441	67,078	269	—	250,014	12,044	262,058
2013	83,165	8,615	91,780	10,067	5,522	88,720	810	13,535	103,064	340	51,483	23,359	10,553	85,394	354	—	277,128	19,377	296,505
2014	91,450	11,624	103,073	11,706	4,282	99,874	1,134	17,213	118,221	5,995	67,901	29,513	12,335	109,749	2,751	—	329,803	25,975	355,778
2015	101,503	48,255	149,757	13,275	4,282	110,069	436	32,174	142,678	30,274	85,910	31,632	15,582	133,123	5,463	125	440,640	38,337	478,978
2016	114,663	106,250	220,913	14,605	60	124,070	82	42,026	166,178	62,761	87,771	35,305	42,312	165,387	6,174	531	563,292	73,316	636,608
2017	129,028	147,419	276,447	16,045	60	135,437	152	52,300	187,889	80,051	83,741	35,067	50,652	169,460	9,132	1,013	654,324	85,774	740,098

Notes: 1. *Treasury bonds* includes book-entry government bonds and electronic savings bonds.
2. *Other financial bonds* includes interbank and exchange-traded financial bonds.

Source: People's Bank of China.

Table 12 Number of interbank bond market participants, 2014—2017

			2014	2015	2016	2017
Domestic participants	Incorporated entities	Depository financial institutions	1,088	1,302	1,560	1,745
		Other banking financial institutions	158	182	242	278
		Securities financial institutions	169	171	179	185
		Insurance financial institutions	148	152	154	163
		Non-financial institutions	278	280	274	274
		Other	7	7	21	20
		Sub-total	1,848	2,094	2,430	2,665
	Unincorporated entities	Securities investment funds	1,556	2,151	3,137	3,919
		Corporate annuities	1,275	1,431	1,528	1,625
		Social Security Fund	105	105	106	163
		Insurance products	145	311	641	976
		Trust products	569	666	684	869
		Specific asset management portfolios of fund companies	176	1,140	3,061	3,425
		Asset management schemes of securities companies	560	1,388	2,743	3,586
		Wealth management products of banks	48	48	445	679
		Other	0	0	114	216
		Sub-total	4,434	7,240	12,459	15,458
Overseas participants			180	302	407	617
Total			6,462	9,636	15,296	18,740

Source: People's Bank of China.

Table 13 Interbank bond market settlement agents

Serial number	Institution	Serial number	Institution
1	Industrial and Commercial Bank of China	26	Bank of Dalian
2	Agricultural Bank of China	27	Bank of Qingdao
3	Bank of China	28	Bank of Chengdu
4	China Construction Bank	29	Bank of Chongqing
5	Bank of Communications	30	Bank of Hebei
6	China Merchants Bank	31	Xiamen Bank
7	China Minsheng Bank	32	Fudian Bank
8	China Everbright Bank	33	Jinshang Bank
9	China CITIC Bank	34	Haixia Bank of Fujian
10	Huaxia Bank	35	Bank of Guiyang
11	Industrial Bank	36	Bank of Xi'an
12	Shanghai Pudong Development Bank	37	Bank of Dongguan
13	China Guangfa Bank	38	Harbin Bank
14	Bank of Beijing	39	Shunde Rural Commercial Bank
15	Hengfeng Bank	40	Bank of Ningbo
16	Bank of Nanjing	41	Changshu Rural Commercial Bank
17	Bank of Shanghai	42	Baoshang Bank
18	Bank of Hangzhou	43	Hankou Bank
19	Shanghai Rural Commercial Bank	44	HSBC Bank (China) Co., Ltd.
20	Bank of Tianjin	45	Standard Chartered Bank (China) Ltd.
21	Qishang Bank	46	BNP Paribas (China) Ltd.
22	Ping An Bank	47	Deutsche Bank (China) Co., Ltd.
23	Qilu Bank	48	Citibank (China) Co., Ltd.
24	Bank of Urumqi	49	J.P. Morgan Chase Bank (China) Co., Ltd
25	Bank of Changsha		

Note: By the end of Dec.31, 2017.

Source: Website of the China Foreign Exchange Trade System.

Table 14 Primary dealers for open market operations, 2017

Industrial and Commercial Bank of China	Agricultural Bank of China
Bank of China	China Construction Bank
Bank of Communications	Postal Savings Bank of China
China Development Bank	Export-Import Bank of China
China CITIC Bank	China Everbright Bank
China Minsheng Bank	China Guangfa Bank
Shanghai Pudong Development Bank	Industrial Bank
China Merchants Bank	Ping An Bank
Huaxia Bank	China Zheshang Bank
Hengfeng Bank	Bank of Beijing
Bank of Shanghai	Bank of Nanjing
Bank of Hebei	Bank of Zhengzhou
Qishang Bank	Bank of Jiangsu
Bank of Luoyang	Huishang Bank
Bank of Guangzhou	Bank of Xi'an
Bank of Dalian	Fujian Haixia Bank
Bank of Tianjin	Xiamen Bank
Shengjing Bank	Bank of Changsha
Harbin Bank	Beijing Rural Commercial Bank
Shanghai Rural Commercial Bank	Guangzhou Rural Commercial Bank
Shunde Rural Commercial Bank	HSBC Bank (China) Co., Ltd.
Citibank (China) Co., Ltd.	Standard Chartered Bank (China) Ltd.
CITIC Securities Co., Ltd.	China International Capital Co., Ltd.
Guotai Junan Securities	First Capital Securities

Source: People's Bank of China.

Table 15 Stock market statistics, 2000—2017

Year	Number of listed companies	Listed share capital (100 million shares)	Market cap (RMB 100 million)	Free –float market cap (RMB 100 million)	Total capital raised via the A-share market (RMB 100 million)	Turnover (RMB 100 million)	Average turnover ratio (%)		Average P/E ratio		Investor accounts (10,000)
							Shanghai	Shenzhen	Shanghai	Shenzhen	
2000	1,088	3,791.7	48,090.9	16,087.5	—	60,826.6	492.9	509.1	58.2	56	6,123.2
2001	1,160	5,218.0	43,522.2	15,228.8	—	38,305.2	269.3	227.9	37.7	39.8	6,898.7
2002	1,224	5,875.5	38,329.1	12,484.6	737.23	27,990.5	214.0	198.8	34.4	37	6,841.8
2003	1,287	6,428.5	42,457.7	13,178.5	665.07	32,115.3	250.8	214.2	36.5	36.2	6,981.2
2004	1,377	7,149.4	37,055.6	11,688.6	642.78	42,333.9	288.7	288.3	24.2	24.6	7,215.7
2005	1,381	7,629.5	32,430.3	10,630.5	339.03	31,663.1	274.4	320.6	16.3	16.4	7,336.1
2006	1,434	14,897.6	89,403.9	25,003.6	2,335.22	90,468.7	541.1	671.3	33.4	33.6	7,854.0
2007	1,550	22,416.9	327,140.9	93,064.4	7,791.57	460,556.2	927.2	1,062.1	59.2	72.1	9,280.6
2008	1,625	24,522.85	121,366.44	45,213.9	2,619.71	267,113.0	392.5	—	14.86	17.13	10,449.7
2009	1,718	26,162.85	243,939.12	151,258.7	3,894.53	535,986.7	—	—	28.73	46.01	12,037.7
2010	2,063	33,184.35	265,422.59	193,110.41	8,954.99	545,633.54	—	—	21.61	44.69	13,391.04
2011	2,342	36,095.52	214,758.10	164,921.3	5,073.07	421,649.72	—	—	13.4	23.11	14,050.37
2012	2,494	38,295.0	230,357.62	181,658.26	1,380.42	314,667.41	—	—	12.3	22.01	14,054.91
2013	2,489	40,569.08	239,077.19	199,579.54	2,802.76	468,728.6	—	—	10.99	27.76	13,247.15
2014	2,613	43,610.13	372,546.96	315,624.31	4,856.43	743,912.98	—	—	15.99	34.05	14,214.68
2015	2,827	49,997.26	531,304.20	417,925.40	8,329.89	2,550,538.29	—	—	17.63	52.75	21,477.57
2016	3,052	55,820.50	508,245.11	393,266.27	18,910.35	1,267,262.64	—	—	18.94	62.36	—
2017	3,482	60,919.15	567,475.37	449,105.31	15,213.81	1,124,625.07	—	—	19.67	39.53	—

Sources: China Securities Regulatory Commission, Shanghai Stock Exchange and Shenzhen Stock Exchange.

Table 16 Change in stock market turnover and indices

Unit: RMB 100 million

Year	Turnover	Average daily turnover	SSE composite index				SZSE composite index			
			Open	High	Low	Close	Open	High	Low	Close
2000	60,826.6	254.5	1,368.69	2,125.72	1,361.21	2,073.48	402.71	654.37	414.69	635.73
2001	38,305.2	159.6	2,077.08	2,245	1,515	1,645.97	636.62	664.85	439.36	475.94
2002	27,990.5	118.1	1,643.49	1,748.89	1,339.2	1,357.65	475.14	512.38	371.79	388.76
2003	32,115.3	133.25	1,347.43	1,649.6	1,307.4	1,497.04	386.61	449.42	350.74	378.63
2004	42,333.9	174.21	1,492.72	1,783.01	1,259.43	1,266.5	377.93	470.55	315.17	315.81
2005	31,663.1	130.84	1,260.78	1,328.53	998.23	1,161.06	313.81	333.27	237.18	278.75
2006	90,468.7	375.39	1,163.88	2,698.9	1,161.91	2,675.47	278.99	710.14	278.99	706.01
2007	460,556.2	1,903.12	2,728.19	6,092.06	2,612.54	5,261.56	555.26	1,567.74	547.89	1,447.02
2008	267,113.0	1,085.82	5,265	5,497.9	1,706.7	1,820.81	1,450.33	1,584.39	452.33	553.08
2009	535,986.7	2,196.67	1,849.02	3,478.01	1,844.09	3,277.14	560.09	1,234.12	560.1	1,201.34
2010	545,633.54	2,254.68	3,289.75	3,306.75	2,319.74	2,808.08	1,207.33	1,412.64	890.24	1,290.87
2011	421,649.72	1,728.06	2,825.33	3,067.46	2,134.02	2,199.42	1,298.59	1,316.19	828.83	866.65
2012	314,667.41	1,294.93	2,212.00	2,460.69	1,959.77	2,269.13	871.93	1,020.29	724.97	881.17
2013	468,728.6	1,969.45	2,289.51	2,434.48	1,950.01	2,115.98	887.37	1,106.27	815.89	1,057.67
2014	743,913.0	3,036.38	2,112.13	3,239.36	1,974.38	3,234.68	1,055.88	1,504.48	1,004.93	1,415.19
2015	2,550 538.29	10,453.0	3,258.63	5,178.19	2,850.71	3,539.18	1,419.44	3,156.96	1,408.99	2,308.91
2016	1,267 262.64	5,193.7	3,536.59	3,538.69	2,638.3	3,103.64	2,304.48	2,304.49	1,618.12	1,969.11
2017	1,124 625.07	4,609.1	3,105.31	3,450.50	3,016.53	3,307.17	1,972.55	2,054.02	1,753.53	1,899.34

Sources: China Securities Regulatory Commission, Shanghai Stock Exchange and Shenzhen Stock Exchange.

Table 17 Market makers for rmb trading in the interbank spot foreign exchange market

Serial number	Institution	Serial number	Institution
1	Industrial and Commercial Bank of China	17	Bank of Nanjing
2	Agricultural Bank of China	18	Bank of Ningbo
3	Bank of China	19	BNP Paribas (China) Ltd.
4	China Construction Bank	20	Shanghai Pudong Development Bank
5	Bank of Communications	21	DBS Bank (China) Ltd.
6	China CITIC Bank	22	Bank of America, Shanghai Branch
7	China Merchants Bank	23	HSBC Bank (China) Co., Ltd.
8	China Everbright Bank	24	Bank of Montreal (China) Co., Ltd.
9	Huaxia Bank	25	Citibank (China) Co., Ltd.
10	China Guangfa Bank	26	Standard Chartered Bank (China) Ltd.
11	Ping An Bank	27	J.P. Morgan Chase Bank (China) Co., Ltd
12	Industrial Bank	28	Societe Generale (China) Limited
13	China Minsheng Bank	29	Banque de lIndochine (China) Co., Ltd
14	China Development Bank	30	Deutsche Bank (China) Co., Ltd.
15	Postal Savings Bank of China	31	Mizuho Bank (China), Ltd.
16	Bank of Shanghai	32	Bank of Tokyo-Mitsubishi UFJ (China), Ltd.

Source: China Foreign Exchange Trade System.

Table 18 RMB/FX central parity rates, 1994—2017

Year	USD	EUR	JPY	HKD	GBP	MYR	RUB	ZAR	KRW	AED	SAR	HUF	PLN	DKK	SEK	NOK	TRY	MXN	AUD	CAD	NZD	SGD	CHF
1994	844.91	—	7.78	112.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1995	831.79	—	8.0703	107.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1996	829.92	—	7.1613	107.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1997	827.98	—	6.3627	106.81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1998	827.87	—	7.1719	106.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1999	827.93	—	8.0933	106.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	827.81	—	7.2422	106.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2001	827.66	—	6.3005	106.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002	827.73	863.6	6.9035	106.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003	827.69	1,033.8	7.7263	106.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004	827.65	1,126.3	7.9701	106.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005	807.02	957.97	6.8716	104.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2006	780.87	1,026.7	6.563	100.47	1,532.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2007	730.46	1,066.7	6.4064	93.638	1,458.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2008	683.46	965.9	7.565	88.189	987.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2009	682.82	979.71	7.3782	88.048	1,097.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2010	662.27	880.65	8.126	85.093	1,021.8	46.649	462.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2011	630.09	816.25	8.1103	81.07	971.16	50.279	508.6	—	—	—	—	—	—	—	—	—	—	—	640.93	617.77	—	—	—
2012	628.55	831.76	7.3049	81.085	1,016.1	48.865	485.28	—	—	—	—	—	—	—	—	—	—	—	653.63	631.84	—	—	—
2013	609.69	841.89	5.7771	78.623	1,005.6	54.141	539.85	—	—	—	—	—	—	—	—	—	—	—	543.01	572.59	—	—	—
2014	611.9	745.56	5.1371	78.887	954.37	56.737	905.36	—	—	—	—	—	—	—	—	—	—	—	501.74	527.55	480.34	463.96	—
2015	649.36	709.52	5.3875	83.778	961.5	66.051	1131	—	—	—	—	—	—	—	—	—	—	—	472.76	468.14	444.26	458.75	640.18
2016	693.7	730.68	5.9591	89.451	850.94	64.406	869.06	196.75	17,371.0	52.938	54.062	4,247.68	60.355	101.71	131.16	124.27	50.757	298.64	501.57	514.06	483.08	479.95	679.89
2017	653.42	780.23	5.7883	83.591	877.92	62.224	881.4	189.5	16,369.0	56.212	57.397	3,973.0	53.576	95.43	126.24	126.24	57.834	301.65	509.28	520.09	463.27	488.31	667.79

Notes: 1. Listed in the table are central parity rates on the last trading day of the year.

2. The central parity rates of CNY/MYR, CNY/RUB, CNY/ZAR, CNY/KRW, CNY/AED, CNY/SAR, CNY/HUF, CNY/PLN, CNY/DKK, CNY/SEK, CNY/NOK, CNY/TRY, CNY/MXN are under indirect Quotation; the central parity rates of CNY against the other 10 currencies are under direct Quotation.

Sources: China Foreign Exchange Trade System.

Table 19 Futures market trading, 1993—2017

Units: RMB 100 million, 10,000 lots

Year	Commodity futures market		Financial futures market	
	Trading value	Trading volume	Trading value	Trading volume
1993	5,521.99	890.69	—	—
1994	31,601.41	12,110.72	—	—
1995	100,565.30	63,612.07	—	—
1996	84,119.16	34,256.77	—	—
1997	61,170.66	15,876.32	—	—
1998	36,967.24	10,445.57	—	—
1999	22,343.01	7,363.91	—	—
2000	16,082.29	5,461.07	—	—
2001	30,144.98	12,046.35	—	—
2002	39,490.16	13,943.26	—	—
2003	108,389.03	27,986.42	—	—
2004	146,935.31	30,569.76	—	—
2005	134,448.38	32,284.75	—	—
2006	210,046.34	44,947.41	—	—
2007	409,722.43	72,842.68	—	—
2008	719,141.94	136,388.71	—	—
2009	1,305,107.20	215,742.98	—	—
2010	2,269,852.69	304,194.19	821,397.94	9,147.66
2011	937,503.93	100,372.53	437,659.55	5,041.62
2012	952,862.59	134,546.42	758,406.78	10,506.18
2013	1,264,695.80	186,827.38	1,410,066.21	19,354.93
2014	1,279,712.50	228,343.25	1,640,169.73	21,758.10
2015	1,356,307.36	323,715.31	4,173,852.33	34,052.95
2016	1,774,124.99	411,943.24	182,191.10	1,833.59
2017	1,633,042.09	305,155.38	245,922.02	2,459.59

Note: Starting from 2011, futures trading volumes are single counted. Data in the table exclude Exchange for Physical transactions.
Source: China Futures Association.

Table 20 Gold market trading, 2003—2017

Units: RMB 100 million, tonnes

Year	Trading value	Trading volume
2003	459.2	470.7
2004	731.0	665.3
2005	1,069.8	906.4
2006	1,947.5	1,249.6
2007	3,164.9	1,828.1
2008	8,683.9	4,457.6
2009	10,288.8	4,710.8
2010	16,157.8	6,051.5
2011	24,772.2	7,438.5
2012	21,506.3	6,350.2
2013	32,133.8	11,614.5
2014	45,891.6	18,486.7
2015	80,083.9	34,067.3
2016	130,240.6	48,676.6
2017	149,751.9	54,292.0

Source: Shanghai Gold Exchange.

Table 21 OTC gold businesses of commercial banks, 2007—2017

Business type		Account gold		Physical gold			Other								
Product (Units)		USD-denominated (10,000 oz, US$100 million)	RMB-denominated (tonne, RMB 100 million)	Proprietary (tonne, RMB 100 million)	Agent (tonne, RMB 100 million)	Gold accumulation and regular investment (tonne, RMB 100 million)	Gold leasing (tonne, RMB 100 million)	Gold lending/ borrowing (tonne, RMB 100 million)	Gold pledging (tonne, RMB 100 million)	Domestic USD gold forwards (10,000 oz, US$100 million)	Domestic USD gold options (10,000 oz, US$100 million)	Domestic USD gold swaps (10,000 oz, US$100 million)	Domestic RMB gold forwards (tonne, RMB 100 million)	Domestic RMB gold swaps (tonne, RMB 100 million)	Domestic RMB gold options (tonne, RMB 100 million)
2007	Trading volume	157.68	352.71	6.09	3.96	—	33.11	1.20	—	204.93	8.48	—	—	—	—
	Trading value	11.08	607.05	11.20	7.16	—	56.40	2.31	—	11.84	0.60	—	—	—	—
2008	Trading volume	293.09	1,332.55	33.12	4.13	—	73.99	11.40	—	574.85	6.28	—	—	—	—
	Trading value	25.37	2,546.30	66.68	8.18	—	141.50	20.16	—	54.44	0.58	—	—	—	—
2009	Trading volume	579.96	1,381.16	40.73	3.43	0.54	91.29	7.56	—	162.06	2.29	—	—	—	—
	Trading value	57.34	2,923.48	89.90	7.64	1.30	191.98	15.09	—	15.98	0.22	—	—	—	—
2010	Trading volume	418.67	1,205.15	80.40	3.06	12.27	155.80	10.63	0.27	257.82	1.74	—	3.09	—	—
	Trading value	51.47	3,227.49	222.90	8.53	35.29	413.25	28.85	—	32.75	0.21	—	8.78	—	—
2011	Trading volume	447.20	1,864.40	129.50	6.16	30.30	301.30	31.99	4.56	407.04	6.06	17.99	5.09	—	—
	Trading value	72.21	6,271.71	428.50	21.49	102.18	970.55	104.92	—	64.69	0.90	2.74	17.59	—	—
2012	Trading volume	424.35	1,458.89	126.20	10.55	59.85	465.01	54.80	7.43	1,331.50	61.46	49.93	20.95	—	—
	Trading value	70.71	4,947.18	443.70	41.20	205.82	1,583.70	187.23	—	222.01	10.17	8.35	70.91	—	—
2013	Trading volume	497.26	1,864.54	198.63	24.89	298.24	947.65	407.23	39.85	991.99	146.88	524.56	29.76	18.63	—
	Trading value	70.39	5,159.69	618.25	87.76	838.09	2,656.29	1,094.43	78.96	136.48	20.39	75.63	79.86	60.86	—
2014	Trading volume	250.37	910.78	91.36	25.16	594.24	1,370.69	474.80	17.14	1,735.95	40.87	341.08	197.29	10.35	0.03
	Trading value	31.59	2,289.79	250.76	94.19	1,483.77	3,438.19	1,180.97	32.83	218.64	5.18	43.68	496.33	26.01	0.07
2015	Trading volume	377.34	1,109.83	128.18	27.54	535.02	1,582.71	849.22	27.47	2,414.39	28.74	1,314.93	737.86	309.82	0.31
	Trading value	43.95	2,609.08	321.01	100.54	1,252.41	3,739.06	2,009.87	74.63	281.36	3.37	151.75	1,767.57	7,101.86	0.74
2016	Trading volume	685.04	1,889.54	143.47	34.40	463.96	1,827.78	1,242.59	3.42	1,359.40	50.53	1,814.90	799.26	32.01	0.08
	Trading value	86.47	5,064.28	396.04	135.83	1,239.66	4,855.60	3,319.76	6.00	168.84	6.34	217.35	2,134.97	85.47	0.21
2017	Trading volume	577.48	1,951.19	101.47	27.97	378.72	1,778.05	1,216.60	0.83	707.64	73.92	3,280.59	1,074.17	98.92	1.16
	Trading value	72.87	5,344.52	288.74	117.22	1,044.04	4,901.43	3,367.16	1.66	89.45	9.28	414.87	2,982.79	277.73	3.34

Notes: 1. Proprietary trading and agent trading of physical gold comprise sales and repos. Volume of gold accumulation (regular gold investment) comprises sales and redemptions. Volume of gold leasing, comprising leases and repayments for the years 2007—2013, covers leases only from 2014 onwards. Volume of gold lending/borrowing, comprising gold lending and borrowing for the years 2007—2013, covers lending only from 2014 onwards. Volume of gold pledging is the weight of gold received as pledge.

Source: Gold Market Monitoring and Analysis System of PBC Shanghai Head Office.

Table 22 Interest rate derivatives trading, 2006—2017

Unit: RMB 100 million

Year	Interest rate swaps		X-swap		Bond forwards		Standard bond forwards		Forward rate agreements	
	Number of trades	Notional principal amount	Number of trades	Notional principal amount	Number of trades	Trading volume	Number of trades	Trading volume	Number of trades	Notional principal amount
2006	103	355.7	—	—	398	664.5	—	—	—	—
2007	1,978	2,186.9	—	—	1,238	2,518.1	—	—	14	10.5
2008	4,040	4,121.5	—	—	1,327	5,005.5	—	—	137	113.6
2009	4,044	4,616.4	—	—	1,599	6,556.4	—	—	27	60.0
2010	11,643	15,003.4	—	—	967	3,183.4	—	—	20	33.5
2011	20,202	26,759.6	—	—	436	1,030.1	—	—	3	3.0
2012	20,945	29,021.4	—	—	56	166.1	—	—	3	2.0
2013	24,409	27,277.8	—	—	1	1.01	—	—	1	0.5
2014	43,071	40,384.51	207	393	—	—	—	—	—	—
2015	64,812	82,587.33	996	5,024	83	19.6	59	17.2	—	—
2016	87,882	99,306.95	8	8	7	14.9	8	1.0	1	1.0
2017	138,404	144,057.59	0	0	15	12.0	0	0	0	0.0

Source: China Foreign Exchange Trade System.