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PBC Shanghai Head Office
China Financial Market Development Report Committee

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Part I Overview

In 2015, international situations were complicated and the Chinese economy was under growing downward pressure. Against this macro backdrop, China actively adapted to new circumstances by adopting new concepts and strategies in economic growth, managed the development of New Normal, and maintained a broadly stable growth momentum which saw progress and pick-up amid stabilization. Under new circumstances, China's financial market presented the following features in the process of continuous opening up and integration, namely, rapid growth and risks as well as challenges coexisted, market innovation was advanced along with institutional, and focus was put on both the depth and width of financial market opening up. It provided a strong support for the real economy when seeking steady development.

1.Analysis of the macro environment for China's financial market development in 2015

1.1 Analysis of international economic and financial conditions

In 2015, moderate economic recovery continued in advanced economies. Some emerging economies, in particular crude oil and commodity exporters were hit hard by falling oil and commodity prices. Global deflationary pressure rose markedly as a result of falling energy price. Volatility of international financial markets was high, commodity price continued to drop, the U.S. dollar strengthened, and currencies of some emerging economies depreciated substantially.

1.1.1 Divergence in global economic developments widened

1.1.1.1 Moderate economic recovery continued in major advanced economies

The U.S. economy continued mild recovery, but momentum seemed to drop. In the first three quarters of 2015, the average real gross domestic product (GDP) grew 2.58% in the U.S. on a seasonally-adjusted basis, higher than the growth rate of 2.41% in the same period of 2014. But the initial real GDP growth forecast for the fourth quarter was merely 1.8%, which caused the annual average growth rate to stand at 2.39%, slightly lower than 2.43% in 2014. Personal consumption expenditure and investment remained major drivers for economic growth. The jobless rate continued to decline steadily from 5.7% at the start of the year to 5% in December, a record low over the past more than seven years. Persistent and mild economic recovery began to gradually drive up wage levels, and the labor market was close to full employment.

Economic recovery in the euro area gained momentum slightly. In 2015, the average real GDP growth in the euro area posted 1.5%, higher than 0.88% in 2014. Household consumption was the major driving force. The jobless rate maintained mild improvement, gradually falling from 11.3% in January 2015 to

10.4% in December.

Japan had a hard time in resuming economic recovery. During the first three quarters of 2015, its real GDP edged up 0.45% on average, higher than 0.16% recorded in the same period of 2014. However, the initial real GDP growth forecast for the fourth quarter was only 0.66% year-on-year and -0.4% quarter-on-quarter. The major reason was that personal consumption expenditure and personal residential investment dropped 0.8% and 1.2% respectively. The labor market had been staying near full employment, and the jobless rate decreased from 3.6% earlier in the year to 3.3% in December.

Economy in the U.K. continued to recover moderately, but at a somewhat slower pace. Preliminary data showed that the real GDP added 2.18% in 2015, lower than 2.85% in 2014. The initial estimate for the real GDP growth in the fourth quarter grew 1.9% year-on-year, lower than 2.1% in the third quarter, a record low since the first quarter of 2013. The major contributor to slower GDP growth was the slowdown in the industrial and services sectors. The jobless rate continued to improve, posting 5.3% in the third quarter, the lowest since the second quarter of 2008.

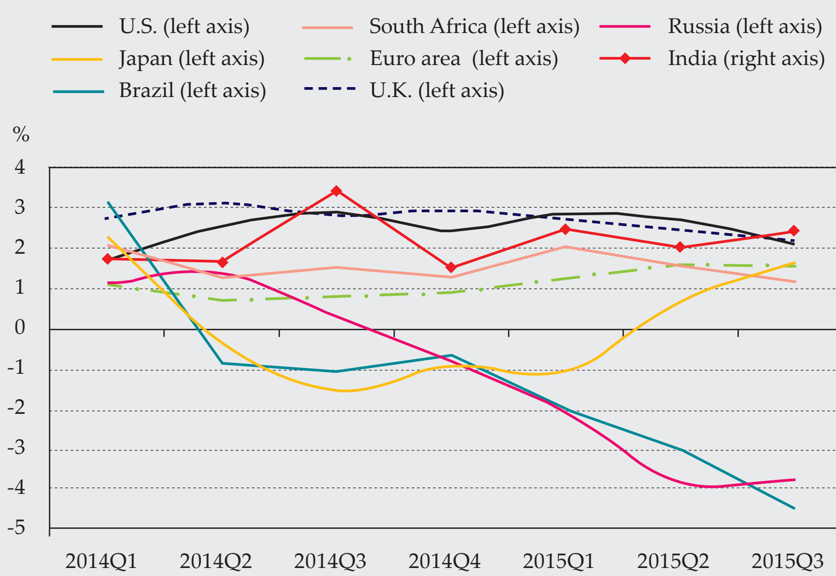
Advanced economies in the Asia-Pacific region witnessed mild but somewhat slower growth. Preliminary data indicated that the real GDP rose 2.6% and 2.1% respectively in Republic of Korea and Singapore in 2015. In the first three quarters of 2015, the average real GDP growth in Australia was 2.2%, lower than that in the corresponding period of 2014. Economic growth also slowed down slightly in Hong Kong China and Taiwan China. In particular, Taiwan China showed signs of a slight negative growth in the second half of 2015.

1.1.1.2 Economic growth in many emerging economies faced a higher downward pressue

Emerging economies broadly reported a higher downward pressure on economic growth except India. Some economies experienced a severe negative growth. In China, the downward pressure remained relatively high, and the economy grew 6.9% in 2015. In South Africa, economic growth was sluggish, as the GDP added 2%, 1.6% and 1.2% respectively in the first three quarters. After being hit hard by sanctions imposed by the U.S. and Europe, sharp exchange rate depreciation and collapse of oil price, the Russian economy shrank 2.2% in the first quarter, the first negative growth since the fourth quarter of 2009. Economic downturn worsened in the second and third quarters, as the manufacturing and services sectors both saw a big decline. The real GDP growth rate in these two quarters stood at -3.81% and -3.74% respectively. The falling commodity price took a heavy toll on the Brazilian economy. Coupled with fiscal consolidation by the Brazilian government, the economy grew -4.5% in the third quarter, shrinking for six quarters in a row, which was the worst performance since 1996. In the first two quarters of 2015, the real GDP in Brazil declined 2% and 3% respectively. In 2015, the real GDP in India jumped 7.5%, higher than that in 2014, which was mainly driven by growth in the services sector such as the financial sector, and manufacturing sector.

In 2015, growth in ASEAN emerging economies diverged markedly. The real GDP in Indonesia and the Philippines grew 4.8% and 5.8% respectively. In the first three quarters, the real GDP in Malaysia added 5.1% on average, decelerating slightly. In 2015, the real GDP in Vietnam went up 6.68%, a five-year high, and that in Thailand gained 2.8%, well above 0.8% in 2014.

Figure 1.1 Economic Growth Rates of Major Economies, 2014—2015



Note: The real GDP growth rates for India and Brazil are not seasonally adjusted.
Sources: Reuters DATASTREAM and staff calculations.

1.1.1.3 Deflationary pressure was pronounced, but inflation picked up in some economies

Due to falling energy price, deflationary pressure in advanced economies increased notably. In 2015, the consumer price index (CPI) in the euro area and the U.K. was almost the same as that in 2014. In December, the CPI in the euro area and the U.K. only grew 0.2% year-on-year. In Japan, inflation dropped sharply since the second quarter from 2.3% to 0.3% in December. Apart from lower energy price, a stronger dollar also contribtued to lower prices of imported goods in the U.S., which further pushed down the price level. In Japan, the CPI only advanced 0.7% year-on-year in November. Inflation dropped substantially in most advanced economies, such as Australia, New Zealand, Republic of Korea and Singapore.

By contrast, inflation in some emerging economies remained at high levels. Sharp currency depreciation coupled with the tax hike continuously pushed up inflation in Brazil. In 2015, the inflation stood at 9.3% on average. Moreover, it was 11.28% in December, the highest since the end of 2003. In Russia, inflation posted 15.9% on average in the first eleven months. In India, inflation climbed to 5.61% in December, the highest since October 2014. According to the forecast by the International Monetary Fund (IMF), inflation in Ukraine and Venezuela posted 50% and 159% respectively in 2015. Inflation in the Commonwealth of Independent States (excluding Russia) rose from 8.7% in 2014 to 16.3%, and that in Latin America and the Caribbean grew from 7.9% in 2014 to 11.2%.

1.1.1.4 Growth of global trade and direct investment was sluggish

In September 2015, the World Trade

Organization (WTO) revised down global trade growth forecast for 2015 to 2.8% from April forecase of 3.3%. The Baltic Dry Index (BDI), a leading indicator to gauge global trade activities, dropped steadily from 782 at the beginning of 2015, experienced a noticeable upturn before tumbling again between mid-July and mid-August, and was just 478 at end-December. In 2015, the average BDI slid to 720, as compared to 1100 in 2014. Factors, such as weaker import demand from emerging economies like China and Brazil, lower crude oil and major commodities prices, and exchange rate movements, were a drag on global trade growth. In addition, highly volatile international financial markets and increased uncertainties in global economic growth also weighed on the growth of global trade in the second half-year.

The report released by the Organization for Economic Cooperation and Development (OECD) in October 2015 indicated that global foreign direct investment (FDI) flows grew by 13% to $883 billion in the first half of 2015. Among them, the FDI inflows to the U.S. expanded substantially, rising from -$35.7 billion in the previous year to $266.3 billion. The FDI inflows to non-OECD countries declined. In China, it dropped from a high level of $165 billion in the second half of 2014 to $145 billion, a decrease of 12%. The FDI inflows to Brazil, Indonesia and Argentina slid 40%, 30% and 36% respectively to $31 billion, $9 billion and $3 billion. The U.S. replaced China as the largest recipient of FDI inflows worldwide in the first half of 2015.

1.1.1.5 Monetary policy remained accommodative but diverged further

The U.S. Federal Reserve (Fed) continued monetary easing but started the process of rate hikes. The U.S. economy continued mild recovery, the labor market kept improving, and the price level could meet the Fed's target of 2% over the medium term. On December 16, the Fed decided to kick off the rate hike process by raising the federal funds rate by 0.25 percentage points to a range of 0.25%–0.5%, and to keep the existing policy on reinvestment of principal payments unchanged. In the meantime, the interest rate on required and excess reserve balances was increased by 0.25 percentage points to 0.5% and discount rate was raised by 0.25 percentage points to 1%.

Most advanced economies maintained monetary easing. In particular, the European Central Bank (ECB) substantially increased the size of asset purchase. In March, the ECB revised the previous asset purchase program (APP) by expanding it to public sector securities and purchasing on a monthly basis a total of about 60 billion euros asset-backed securities (ABS), covered bonds and public sector securities until September 2016. In December, the ECB decided to cut the interest rate on the deposit facility from -0.2% to -0.3%, extend the APP until March 2017 and reinvest the principal payments on the securities purchased under the APP as they mature. Japan maintained large-scale quantitative and qualitative easing (QQE). On December 18, the Bank of Japan (BOJ) tweaked the QQE by purchasing longer-term government bonds, which extended the remaining maturities of government bond holdings from 7-10 years to 7-12 years. It would buy 300 billion yen certain types of exchange-traded funds (ETFs) each year in addition to the previous 3 trillion yen purchase program, starting from April 2016. The U.K. continued to adopt a relatively easy monetary policy, the Reserve Bank of Australia and Bank of Korea cut their policy rates twice, and the Reserve Bank of New Zealand lowered its policy rate four times.

Most emerging economies maintained accomodative monetary policy and cut policy rates. Given stabilizing ruble, the Bank of Russian cut interest rate five times, after which the policy rate dropped from 17% to 11% and remained unchanged until the year-end. As inflationary pressure eased, the Reserve Bank of India lowered the policy rate from 7.75% to 6.75% in four rate cuts. The policy rate in other countries, such as Indonesia and Turkey, were also reduced further.

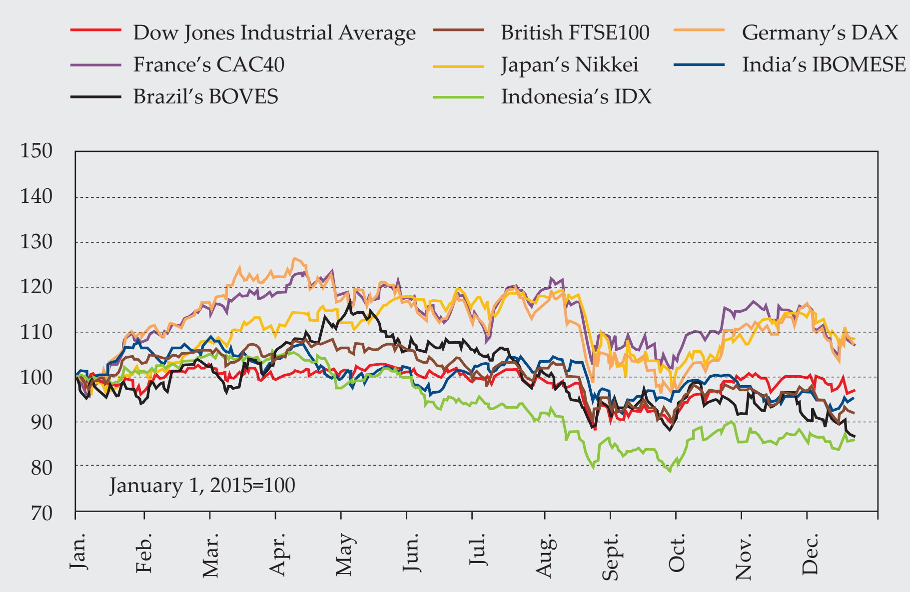
A strengthening dollar led to severe capital outflows in some emerging economies, such as Mexico, Argentina and South Africa. Thus, these economies had to respond by raising interest rates. In addition, as inflation rose persistently, the Central Bank of Brazil increased its policy rate five times from 12.25% to 14.25%. The Central Reserve Bank of Peru and South African Reserve Bank raised their benchmark rates twice by a total of 50 basis points (bps) to 3.75% and 6.25% respectively.

1.1.2 Volatility in international financial markets was significant

1.1.2.1 Stock markets in advanced economies saw gains in general

In early 2015, European stock markets saw large gains on market expectations for more sizable quantitative easing by the ECB. Japanese stock market continued to advance, as Japan also maintained massive quantitative easing. Between end-August and September, financial market risks rose sharply due to high market volatility in Asia-Pacific region and expectations for the Fed's rate hike in September. Stock markets tumbled across the board, and dropped substantially in some emerging economies. The stock market in Indonesia once slashed more

Figure 1.2 Movements of Stock Indices in Major Economies in 2015



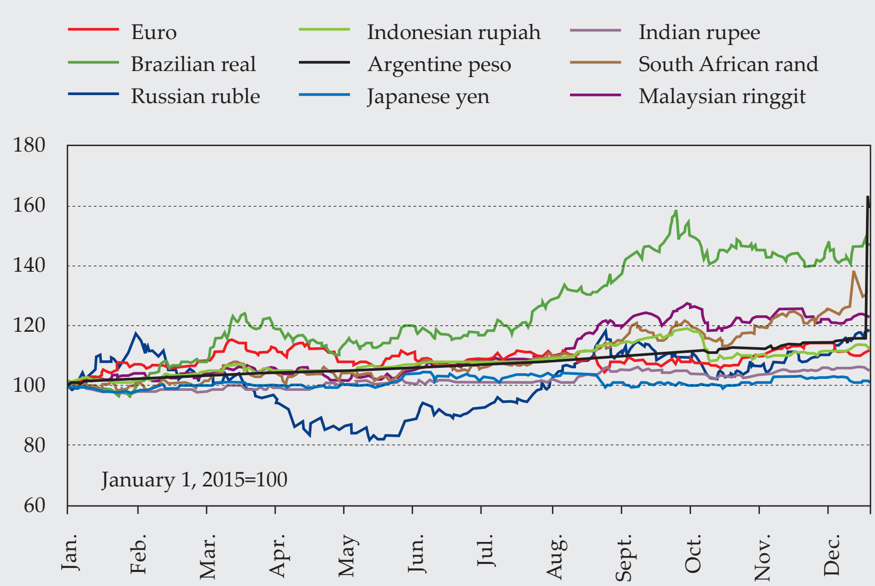
Sources: Reuters DATASTREAM and staff calculations.

than 20% as compared to early 2015. Stock markets rallied after the Fed did not raise the rate in September and fully communicated with the market. Shares in Germany, France and Japan maintained a clear upward trend. In 2015, the Dow Jones Industrial Average in the U.S. shed 2.2%, the British FTSE100 lost 5%, and the Germany's DAX, France's CAC40 and Japan's Nikkei went up 9.6%, 8.5% and 9.1% respectively. In emerging markets, the India's IBOMESE, the Brazil's BOVES and the Indonesia's IDX slid 3.4%, 13.7% and 12.% respectively, while the China's Shanghai Stock Exchange (SSE) Composite Index jumped 9.3%.

1.1.2.2 Currencies in emerging economies depreciated substantially

Downward pressure on economic growth in many emerging economies increased, and the U.S. dollar strengthened considerably against major currencies. The Indian rupee once appreciated slightly in the first quarter, but weakened by 4.8% in 2015. At the beginning of the year, the Russian ruble continued the sharp depreciating trend in 2014. In March, it stabilized and once appreciated by about 15%, but continued downward trend afterwards. At end-December, it depreciated 21.7% as compared to the start of the year. Currencies weakened substantially in South Africa and Brazil. As compared to early 2015, the Brazilian real and the South African rand depreciated 48.8% and 33.9% respectively at end-December. Currencies in Latin American economies weaked nearly 50% against the U.S. dollar. The Argentine peso depreciated 41% on December 17 when the country lifted exchange rate controls. At end-December, the Argentine peso depreciated 53% from the start of the year. Among major ASEAN economies, the

Figure 1.3 Movements of Major Currencies in 2015



Sources: Reuters DATASTREAM and staff calculations.

Indonesian rupiah and Malaysian ringgit also showed a weakening trend. At end-December, they depreciated 11.3% and 22.8% respectively as compared to early 2015.

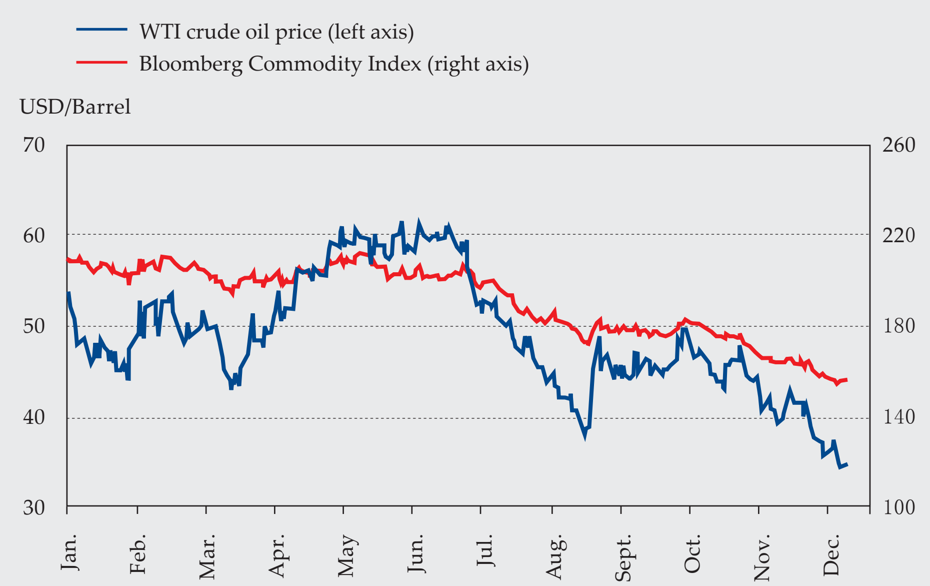
1.1.2.3 Commodity prices continued the losing streak

Demand for energy and commodities dropped substantially as global economic growth was anemic, in particular, downward pressure on economic growth in emerging economies increased. In addition, the U.S. dollar strengthened. Thus, commodity prices continued to drop at a faster pace. International crude oil price measured by the WTI once rebounded to nearly 60 dollars per barrel in the second quarter, but dropped steadily since August. As of end-December, the WTI had already declined to 37.2 dollars per barrel, a decrease of 31% as compared to the beginning of the year. The fall in the price of precious metals was moderate as a result of risk aversion, but that of common metals precipitated. On London market, the price of gold, silver and platinum lost 10%, 12% and 28% respectively, while that of aluminum, copper and nickel slumped 17.8%, 26.1% and 41.8% respectively. The price of agricultural products broadly remained stable. As compared to the beginning of the year, cotton price went up 5.9%, corn price declined 5.9% and sugar price edged up 0.2%. At end-2015, the Bloomberg Commodity Index slid 25% from the start of the year to 158.

1.1.2.4 Movements of interest rates were mixed

In the first three quarters of 2015, the overall level of government bond yields in advanced economies kept the downward trend, but had moved up somewhat since the third quarter,

Figure 1.4 Movements of Crude Oil and Commodity Prices in 2015



Sources: Reuters DATASTREAM and staff calculations.

as prospects for economic growth in advanced economies improved and expectations for the Fed's rate hike were higher. At end-December, the yield of U.S. 10-year treasury bonds was 2.2695%, and that in the U.K., Germany and France was 1.9598%, 0.6345% and 0.981% respectively, all moving up slightly as compared to the beginning of the year. Under the persistent impact of debt crisis, the yield of Greek government bonds stayed at a relatively high level. In early July, the 10-year government bond yield once surged to 19% as the crisis escalated, and fell to 8.3409% at end-December. In terms of market rates, the Libor for major currencies continued to remain at low levels. On December 16, the overnight Libor for the U.S. dollar increased by about 21 bps after the Fed's rate hike. At end-December, the overnight Libor for the U.S. dollar, the British pound, the Japanese yen, the euro and the Swiss franc were 0.2745%, 0.4456%, 0.0364%, -0.28% and -0.783% respectively.

The level of interbank market rates in emerging economies was highly diverged. Take the interbank 3-month borrowing rate for instance, at end-December, the rate in Indonesia gradually went up from 7.17% at the beginning of the year to 8.86%, that in Malaysia remained largely stable at around 3.8%, that in Russia retreated from 21.38% to 11.58%, that in Turkey jumped from 9.8% to 11.47%, that in Mexico climbed from 2.9% to 3.3%, and that in Brazil advanced from 10.6% to 13.3%. In early 2015, the average rate on interbank borrowing less than 15 days on Argentina's interbank market was 23.06%. It once sank to 14.2%, but rose again in the second half of 2015. On December 15, the rate surged to 31%. In the wake of 41% one-time devaluation of the Argentine peso on December 16, the rate dropped gradually from 33% to 22.64% by end-December.

1.2 Analysis of domestic economic and financial conditions

In 2015, faced with weaker-than-expected global economic recovery and increased downward pressure on domestic economic growth, China further deepened reform and opening up, and vigorously pushed forward mass entrepreneurship and innovation. The performance of national economy was stable overall. In this context, financial sector reform was advanced steadily, and reform of financial institutions was deepened persistently with progress and desirable developments achieved amid stabilization.

1.2.1 The performance of national economy was stable overall

Positive changes occurred in China's economic restructuring in 2015, as consumption became a bigger driver, price increase was moderate and employment conditions were basically stable. During the year, the GDP posted 67.7 trillion yuan, a year-on-year increase of 6.9%. By breakdown, it grew 7%, 7%, 6.9% and 6.8% year-on-year in the four quarters respectively.

1.2.1.1 Demand structure was rebalanced

The previous investment- and export-oriented demand structure was shifting to one driven by consumption, investment and export in a well-coordinated manner. In particular, the contribution ratio of consumption to economic growth rose markedly. During the year, social retail sales of consumer goods added 10.7% year-on-year, hitting 30.1 trillion yuan. In particular, the monthly year-on-year growth rate rebounded for five months in a row. Consumption of emerging industries continued to expand rapidly. Online retail sales registered 3.9 trillion yuan, surging 33.3% year-on-year. During the year, the value of exports and imports totaled $3.9 trillion, sliding 8% year-on-year. Among it, the value of exports lost 2.8% from last year to $2.3 trillion, and that of imports slumped 14.1% from last year to $1.7 trillion. The export value of general trade edged up 1.2% year-on-year, while that of processing trade slashed 10.1% from last year. Exports moved towards the higher end of the value chain. Growth of fixed-asset investment stabilized after a decline. During the year, social fixed-asset investment (excluding rural households) stood at 55.2 trillion yuan, a year-on-year gain of 10%, falling 5.7 percentage points compared to the growth in 2014. Among it, investment in real estate development went up 1% over last year, losing 9.5 percentage points compared to that of 2014.

1.2.1.2 Increase in consumer price was moderate

National grain production totaled 620 million tons, rising 2.4%. Among it, total production of cereals posted 570 million tons, rising 2.7%. Prices remained basically stable. During the year, the CPI advanced 1.4% over last year, sinking 0.6 percentage points from the growth in 2014. Among it, growth of food price fell 0.8 percentage points, becoming a major contributor to lower CPI growth. The producer price index (PPI) continued to decline. During the year, the producer selling price lost 5.2% year-on-year, and the producer purchasing price retreated 6.1% year-on-year, up 3.3 and 3.9 percentage points respectively when compared to the drop in 2014.

1.2.1.3 Employment conditions were broadly stable

In 2015, 13.12 million new jobs were created in urban areas, slightly dropping by 100 thousand year-on-year. At the year-end, the registered urban unemployment rate was 4.05%. Household incomes maintained relatively fast growth. In 2015, the per capita disposable income of rural residents was 11422 yuan, a year-on-year increase of 8.9% in nominal terms and 7.5% in real terms. The per capita disposable income of urban residents was 31195 yuan, a year-on-year increase of 8.2% in nominal terms and 6.6% in real terms.

1.2.1.4 Economic structure continued to be optimized

In 2015, the value added of the tertiary industry in China accounted for 50.5% of the GDP, up 2.4 percentage points year-on-year and 10 percentage points higher than the share of the secondary industry. The industrial structure grew more optimized. The contribution ratio of final consumption expenditure to the GDP growth continued to increase, and the structure of domestic demand was improved further. The real growth of per capita disposable income of rural residents outpaced that of urban residents by 0.9 percentage points. The income disparity between urban and rural residents narrowed further, as the per capita disposable income ratio of urban residents to rural residents was 2.73, edging down 0.02 from that in 2014. Energy saving and consumption reduction efforts continued to see new progress. During the first three quarters, the energy consumption per unit of GDP was lowered by 5.7% compared to last year.

1.2.2 Financial environment was stable in general

1.2.2.1 Monetary environment was appropriately accomodative

At end-December, outstanding broad money supply (M2) posted 139.2 trillion yuan, jumping 13.3% year-on-year, 1.1 percentage points higher than the growth in the same period of last year. Outstanding narrow money supply (M1) stood at 40.1 trillion yuan, adding

15.2% over last year, up 12 percentage points compared to the growth in 2014. Outstanding currency in circulation (M0) registered 6.3 trillion yuan, gaining 4.9% compared to a year earlier. Monetary aggregates grew rapidly, and money supply was sufficient in general. At end-December, outstanding RMB and foreign currency-denominated deposits of all financial institutions (including foreign financial institutions, the same below) amounted to 139.8 trillion yuan, climbing 12.4% over last year. Among it, outstanding RMB deposits stood at 135.7 trillion yuan, rising 12.4% year-on-year, 0.3 percentage points higher than the growth in 2014. In general, growth of deposits at financial institutions was stable. At end-December, outstanding RMB and foreign currency-denominated loans of all financial institutions hit 99.4 trillion yuan, increasing 13.4% year-on-year. Among it, outstanding RMB loans grew 14.3% over last year to 94 trillion yuan, up 0.6 percentage points compared to the growth in 2014. At end-December, outstanding loans to households posted 27 trillion yuan, an increase of 3.9 trillion yuan compared to the beginning of the year. Outstanding loans to non-financial enterprises and government departments and organizations stood at 65.8 trillion yuan, adding 7.4 trillion yuan over the start of the year. Growth of loans to households continued to accelerate, while that to non-financial enterprises and other sectors was relatively stable.

1.2.2.2 Size of social financing remained reasonable

In 2015, social financing increased by 15.4 trillion yuan, 467.5 billion yuan less than that in 2014. By breakdown, RMB loans to real economy saw a marked increase, and its share in total social financing rose sharply. In 2015, RMB loans accounted for 73.1% of social financing in the corresponding period, up 13.7 percentage points year-on-year. The growth of equity financing by non-financial enterprises pushed up the share of direct finance. In 2015, domestic bond and equity financing by non-financial enterprises posted 3.7 trillion yuan when combined, representing 24% of new social financing during the corresponding period, up 6.7 percentage points compared to that of last year.

1.2.2.3 Lending and deposit rates at financial institutions dropped in general

The People's Bank of China (PBC) employed a mix of policy tools to keep the liquidity in banking system at a reasonable and adequate level, fully leveraged the price tool to anchor market expectations, and guided the drop of financing costs. During the year, lending rate declined steadily. In December 2015, the weighted average rate on loans to non-financial enterprises and other sectors was 5.27%, shedding 151 bps year-on-year. Among it, the weighted average rate on general loans stood at 5.64%, a year-on-year decline of 128 bps, that on bill financing was 3.33%, falling 234 bps from last year, and that on personal mortgage loans lost 155 bps from the previous year to 4.7%.

1.2.3 Overall performance of the financial sector was stable

1.2.3.1 Assets of banking financial institutions continued to grow, and the capital adequacy ratio was improved steadily

As of end-2015, RMB and foreign currency assets of China's banking financial institutions totaled 199.35 trillion yuan, surging 15.67% from last year, and total RMB and foreign currency liabilities jumped 15.07% year-on-year to 184.14 trillion yuan. As of the end of the third quarter, net profits of commercial banks stood at 1.5926 trillion yuan, and the capital adequacy ratio (CRA) was 13.45%. In particular, core tier-1 CRA was 10.91%. Outstanding non-performing loans (NPLs) posted 1.2744 trillion yuan, and the NPL ratio rose slightly to 1.67%.

1.2.3.2 Overall size of securities and futures institutions expanded rapidly, and profitability continued to grow substantially

As of end-September, total assets of 124 securities companies stood at 6.71 trillion yuan, net assets was 1.35 trillion yuan, and net capital was 1.16 trillion yuan. During the first three quarters, total operating revenues posted 438.043 billion yuan, cumulative net profits was 192.465 billion yuan, and 119 firms made a profit.

1.2.3.3 Premium income of the insurance sector grew steadily, and asset size continued to expand

As of end-2015, premium income of the insurance sector reached 2.43 trillion yuan cumulatively, a year-on-year increase of 20%. Cumulative payments on claims rose 20.2% from last year to 867.414 billion yuan. Total assets of the insurance sector hit 12.36 trillion yuan, surging 21.66% over the beginning of the year. Net assets reached 1.60897 trillion yuan, soaring 21.38% compared to the start of the year. Funds used amounted to 11.18 trillion yuan, jumping 19.81% from the beginning of 2015.

1.2.4 Financial reform was deepened

1.2.4.1 Financial sector reform continued

Key steps were made in the market-based interest rate reform. Interest rates were liberalized in a well-sequenced manner from expanding the upper limit of deposit rate floating band and lifting the upper limit of small value foreign currency deposit rate across China to removing the upper limit of the floating band of rates on time deposits above one year (excluding one-year) at financial institutions and to finally removing the upper limit of rates on demand deposits and time deposits under one year (including one-year) at such institutions as commercial banks and rural cooperative financial institutions. Key steps were made in the market-based interest rate reform. Besides, the Provisional Measures for the Administration of Large Value Certificates of Deposit was published, which allows financial institutions to issue large value certificates of deposit (CDs) to enterprises and individuals at market-based price. The scope of independent pricing was further expanded for financial institutions, and incentives for active liability management and the capacity for independent pricing were improved. Memership of national market rate pricing self-discipline mechanism was expanded in an orderly way, and provincial market rate pricing self-discipline mechanisms were put in place and improved. All this had laid a more solid institutional foundation for furthering market-based interest rate reform.

Instituional reform of foreign exchange administration was actively advanced. First, strong efforts were made to streamline administration and delegate power in foreign exchange administration. Foreign exchange registration and approval under direct investment were removed, the power to approve the qualification of insurance firms for foreign exchange activities was delegated to local bureaus of the State Administration of Foreign Exchange (SAFE), 50 foreign exchange administrative rules and regulations were announced to be revoked and void, and efforts were made to promote the law-based foreign exchange administration. Second, focus was put on improving the level of trade and investment facilitation. The nationwide pilot program of cross-border foreign exchange payment activities was launched among some payment institutions and reform of the administration of converting foreign currency capitals into RMB by foreign-invested enterprises was kicked off. *The Guidance of Foreign Exchange Administration in Insurance Sector* was published to further simplify procedures and process of foreign exchange insurance activities. Procedures for direct investment were simplified substantially, foreign exchange filing for overseas reinvestment were removed, and annual foreign exchange review for direct investment was abolished. Efforts were made to further adjust and optimize the policy for centralized foreign currency fund use by multinationals, streamline the requirements of account opening and use as well as foreign exchange receipt and payment procedures, and adopt on a trial basis self-discipline policy on the share of foreign debt of multinationals. Pilot of cross-border banknote transfer and wholesale business was launched among franchised institutions to provide diverse channels for domestic foreign currency banknotes supply. Institutional investors' quota was granted on reasonable grounds to support capital market development and promote two-way opening up of capital market. Third, capital account convertibility was pushed forward in a well-sequenced manner. Macro-prudential management of the self-discipline regarding the share of foreign debt in enterprises was introduced on a trial basis, the overall size of outstanding short-term foreign debt quota of domestic institutions in 2015 was increased substantially, the use of foreign debt was expanded, the administration of foreign debt account was relaxed, and support was extended to some new and high-tech enterprises by giving them the minimum foreign debt quota. Policy on voluntary conversion of foreign currency capitals into RMB by foreign-invested enterprises was expanded to give enterprises the independence and right to choose when converting foreign currency capitals. Fourth, regulation of cross-border capital flows was strengthened. The administration of overseas cash withdrawal from RMB-denominated China UnionPay card was enhanced, concurrent and ex post regulation was tightened, verification of the authenticity of foreign exchange purchases and sales was strengthened, and the monitoring and analysis of short-term volatility in cross-border funds were enhanced. Targeted regulation of key areas and channels was conducted. Ad hoc campaigns were launched to crack down on transfer of illegal funds through off-shore companies and underground banks to strictly combat illegal and non-compliant foreign exchange activities.

The deposit insurance scheme was implemented steadily. The *Regulations on Deposit Insurance* was released on March 31 2015, effective on May 1. As of June 30, nationwide deposit-taking banking financial institutions all had completed procedures for deposit insurance. As of July 20, premium payable for May and June 2015 had been collected. All work related to the implementation of deposit insurance scheme was carried out firmly and in an orderly way. The establishment of deposit insurance scheme plays an important role in improving financial safety net, clearly identifying the relationship between government and market, deepening financial reform, safeguarding financial stability and improving financial sector's competitiveness.

Institution building of the insurance sector gained speed. First, regulatory system was improved to enhance regulation of capital margins, connected trading, use of funds and Internet insurance. The *Measures for the Administration of Capital Margins at Insurance Companies*, the *Notice on Issues Concerning Further Regulating the Connected Trading by Insurance Companies* and the *Notice on Enhancing Information Disclosure in Connected Trading in Reinsurance by Insurance Companies* were published, which enhanced the administration of capital margins in insurance sector and the regulation of connected trading. The ceiling of investment in a single blue chip was adjusted, and the trading structure, operation framework, operational behaviors and administrative regulations were clearly identified for asset-backed schemes. It was clearly stated that a registration-based system be adopted for private equity fund established with insurance funds. Regulations on the type of fund and scope of investment, governance structure, and operation mechanism were also spelt out. Fundamental rules on Internet insurance activities were clearly identified, covering business conditions, business regions, information disclosure and supervision and regulation. Second, insurance rate reform was implemented, and the pilot of tax breaks for commercial health insurance was launched. Insurers were allowed to independently set the minimum guaranteed interest rate. Besides, the China Insurance Regulatory Commission (CIRC) increased the ceiling of valuation interest rate on required reserves to strengthen regulation of reserves and solvency. The *Opinions on Deepening the Reform of the Administration of Insurance Rate in Commercial Auto Insurance* was released, which clearly stated that the Insurance Association of China is to dynamically publish the benchmark risk premium list for commercial auto insurance, insurance companies would gradually be given a bigger right to price independently in commercial auto insurance, and a highly market-based rate formation mechanism would finally take shape. Rate reform of personal life insurance with bonus was kicked off, a decision was made to provide individual income tax breaks in commercial health insurance, and tax breaks for commercial health insurance were provided on a trial basis. Third, insurance sector was promoted to support economic and social development. Efforts were made to clearly identify and regulate business operation, investment management, risk control as well as supervision and regulation regarding old-age security management activities by old-age insurance companies. Insurance institutions were given support when participating in major project investments through such means as bonds and investment funds. Efforts were made to better safeguard the construction of major projects through project insurance, catastrophe insurance and reinsurance. The *Plan for Establishing China Insurance Investment Fund* was endorsed by the State Council. The establishment of China insurance investment fund would give play to the advantage of long-term investment with insurance funds, match with key national strategies and market demand, support the development of real economy, and increase public goods and services.

1.2.4.2 Reform of financial institutions continued to deepen

The plan for deepening the reform of Bank of Communications was endorsed by the State Council in June. It proposed several reform measures for improving corporate governance, deepening internal reform and strengthening external regulation, which would help the Bank of Communications to shift operation mechanism, improve market competitiveness, and enhance the capacity for supporting real economy. The deepening reform of financial services department for agriculture, farmers and rural areas in the Agricultural Bank of China was expanded nationwide, which further prompted it to improve financial services for agriculture, farmers and rural areas as well as at county levels. The China Development Bank (CDB) and the Export-Import Bank of China completed capital replenishment required by the reform plan. Other work under the reform plan of these three banks were also being implemented steadily, including the identification and division of business scope, improvement of governance structure, and revision of charter. Breakthroughs were made in the reform of policy and development financial institutions. Ownership reform of rural credit cooperatives was promoted steadily, a sustainable development mechanism basically took shape, asset quality was increased substantially, and agro-linked financial services were improved markedly.

2. Main features of China's financial market performance in 2015

In 2015, China's financial market performance and development encountered new challenges as the China's economic development entered a new stage. The volatility and risk in market itself bred new opportunities. Brand new developments were seen in institution building, market innovation and opening up. The old was reformed and the new was introduced. Under the complex and constantly changing macro environment at home and abroad, China's financial market followed the development path featuring innovation, reform, improvement and opening up in 2015. It continued to support the growth of real economy while seeking its own development.

2.1 Rapid development and risks as well as challenges coexisted

In 2015, size of deals concluded in financial markets grew tremendously. Trading on several sub-markets multiplied. Deals on money market grew sharply, including interbank borrowing, bond repurchases (repos), short-term financing bills, and commercial paper, with the monthly turnover close to 50 trillion yuan. For bond market, the primary market expanded rapidly, with total issuance close to 20 trillion yuan. Among it, corporate bonds issued on the exchange and bonds issued by small and medium-sized enterprises (SMEs) through private placement amounted to nearly 800 billion yuan, both growing by several fold. On the secondary market, full-year settlement of spot bond trade exceeded 70 trillion yuan, a year-on-year growth of more than one fold. On derivatives and futures market, trading of interest rate and exchange rate derivatives made a new record high. Incremental turnover of interest rate swaps exceeded 900 billion yuan for the first time. RMB exchange rate derivatives trading outgrew spot foreign exchange transactions. Trading of financial futures rose sharply by more than 150%. The trading value and volume of the exchange gold market surged 74.51% and 89.58% respectively from a year earlier.

As market size expanded rapidly, volatility in financial markets was higher in 2015, market-based risk events occurred, and large fluctuations were observed in several sub-financial markets. Credit risk of bond market was further released, and incidence of credit events increased. On stock market, the annualized volatility of the SSE Composite

Index increased sharply from the lowest level of 17.2% in 2014 to 38.8% in 2015, while that of growth enterprise board index was over 50%. High volatility reflected high risk in stock market. The yield of Chinese and U.S. treasury bonds moved in the same direction, interest rate differentials narrowed markedly, and pressure on RMB exchange rate expectation emerged. Multiple factors weighed on commodity prices across the year, including slower demand growth, a stronger dollar and excessive supply.

2.2 Market innovation an institutional reform were pushed forward at the same time

To cater to new demands arising from market development in 2015, several important market innovation measures were introduced. On the interbank market, capital replenishment bonds and green financial bonds were introducted to the interbank bond market. Under the private placement framework, targeted institutional investors were introducted to make it more convenient for enterprises to raise funds through private placement. The scope of issuers of super short-term financing bills was further expanded. Four types of non-incorporated investors regained access to the interbank bond market, including trusts, asset management plans of securities firms, fund managers and asset management plans of their subsidiaries, and asset management products of insurance firms. Private equity investment funds as well as futures companies and their asset management products became new investors. Bonds traded over-the-counter were diversified. Individual as well as small and medium-sized institutional investors's base was further expanded. X-Repo system and anonymous click in pledge repos were introduced to the interbank money market. The National Interbank Funding Center and the Shanghai Clearing House provided standard bond forwards and central clearing services to market members. Financial institutions such as securities firms and trust companies were given access to the interbank gold market. On the exchange market, the SSE 50ETF options were listed, structured fund developed rapidly, and the first domestic commodity futures fund was established. Throughout the year, five new products were listed for trading on the futures market, including nickel futures, tin futures, 10-year government bond futures, the SSE50 stock index futures and the China Securities Index (CSI) 500 stock index futures. Preparations for the listing of crude oil futures had been finished.

In line with the requirement of streamlining administration and delegating power as well as new stage in market development, several old-fashioned financial market operational institutions and administration mechanisms were replaced by new ones in 2015. On bond market, treasury bills were issued on a rolling basis. Issuance of large value CDs was resumed, the scope of issuers was broadened twice, and the interbank CD business was expanded to cross-border transactions in the Shanghai free trade zone. Approval of interbank bond trading and circulation was removed, market transparency and regularity were improved, and concurrent as well as ex post management was strengthened. Asset securitization activities were shifted from an approval-based system to a filing- and registration-based system, the scope of managers of asset securitization activities was widened, a negative list was adopted for underlying assets, and the asset securitization market was developed on an increasingly regular basis. The scope of corporate bond issuers on the exchange market was expanded, and efforts were made to diversify and reform the means of corporate bond issuance. On stock market, the arrangement of one account per person was abolished for natural person investors when they open the A-share account. The National People's Congress provided the legal basis for registration-based system reform in initial public offerings. A series of policies and regulations was unveiled to crack down on legal activities and non-compliance on capital market. On foreign exchange market, the quotation mechanism for central parity of RMB against the U.S. dollar was further improved, and the market was given a more decisive role in the movement of RMB exchange rate. Ex ante approval for financial institutions to access the interbank foreign exchange market was removed, and several new policies on foreign exchange purchase and sale as well as foreign debt management reform were implemented.

2.3 Importance was attached to both the depth and width of opening up

In the context of accelerating RMB internationalization in 2015, great strides were made in the depth of financial market opening up in China. After a policy change, overseas central bank type of institutions such as overseas central banks, international financial organizations and sovereign wealth funds could access the interbank bond market through a filing-based system. Investment quotas were removed along with restrictions on investment products. The ceiling on qutoas for qualified foreign institutional investors (QFIIs) was fully lifted. As of end-2015, the approved quota for RMB qualified foreign institutional investors (RQFIIs) had reached 1.21 trillion yuan, and the variety of investors was expanded to 16 countries and regions. The steady growth of RMB bond issuance on internaitonal financial markets had greatly enriched the variety of high-level RMB financial products on off-shore market. The number of qualified overseas players on the interbank foreign exchange market increased further, trading was expanded to include all products, and the operating hour of the foreign exchange market trading system was extended to cover European trading sessions. The memership on the international board of the Shanghai Gold Exchange continued to expand, and trading size kept growing. Domestic commercial banks such as the Bank of China and the China Construction Bank became price participants in the London Bullion Market Association (LBMA), who had been accredited to contribute to the LBMA gold price.

In 2015, the opening up of financial markets saw major breakthroughs in more than one area. The Executive Board of the International Monetary Fund (IMF) decided to include the RMB in the Special Drawing Rights (SDR) basket, along with the U.S. dollar, euro, Japanese yen, and British pound. On the interbank market, overseas clearing banks and participating banks gained access to repos on the interbank market, and overseas financial institutions as well as foreign governments issued RMB bonds on the interbank bond market for the first time. On stock market, the FTSE Russell launched China A-share index. Mutual recognition of funds between the Chinese Mainland and Hong Kong was launched. On gold market, the Shanghai-Hong Kong Gold Connect was launched, which activated the connectivity between two major gold markets in these two places. In the meantime, new achievements were made in various aspects of financial cooperation with countries such as Republic of Korea and Russia, including in RMB trading arrangements, RMB lending pilot, bond market financing, and capital market cooperation. In-depth and practical financial cooperation was forged with countries across the world.

2.4 Institutions and measures to support real economy were rolled out at the same time

Local government debt swap plan was launched, three batches of 3.2 trillion yuan local government debt swap quota and 600 billion yuan new local government bond issuance quota were granted, and the means, scope and price of debt swap were clearly identified. Local fiscal departments launched the pilot of treasury cash management, and the pledge of local government bonds was introduced. The Provisional Measures for the Administration of the Issuance of General Local Government Bonds and the Provisional Measures for the Administration of the Issuance of Earmarked Local Government Bonds were promulgated. The categorization of local government bonds into general bonds and earmarked bonds would give local governments the flexibility in choosing which to issue based on fund use arrangements. It encouraged investors to invest in local government bonds, and at the same time, fully allowed for the need of financial institutions for assets of varying maturities when allocating assets. The introduction of a series of institutions on local government debt properly addressed and resolved problems between issuing local government bonds and stabilizing growth in a market-based manner, which eased local fiscal pressure.

Issuance of debenture bonds grew tremendously, including short-term financing bills, super short-term financing bills, corporate bonds and asset-backed notes by non-financial enterprises. Many scientific and highly efficient policy measures on streamlining administration and delegating power were announced. All this had greatly optimized the process of debenture bond issuance, increased issuance efficiency, and provided practical and effective ways to meet enterprises' financing needs. Meanwhile, money market rates stayed low, financing costs on bond market dropped, and enterprises' difficulty in accessing less costly funding was effectively addressed. Development of asset securitization gained speed, underlying assets became more diversified, the scope of market players was expanded continuously, the securitization of loans repaid with housing provident fund was launched on a trial basis, and breakthroughs were made in securitizing non-performing assets. The asset-backed notes (ABNs) with future returns on billing and settlement plan (BSP) as the underlying assets and notes with project proceeds as the underlying assets were issued on the interbank bond market, which played an important role in supporting the financing of construction projects in urbanization. The first batch of special financial bonds for supporting infrastructure construction was issued. These bonds became an important tool for shoring up local infrastructures, which would in turn stablize investment and economic growth. Detailed rules for the administration of project proceeds bonds were unveiled, which provided a new channel for financing local infrastructures and public utilities projects.

3. Outlook on China's financial market development in 2016

2016 is the first year of China's 13th Five-Year Plan for economic development. Mild global economic recovery will gather momentum, China's economic development will fully enter the stage of New Normal, and future financial market development will actively adapt to world economic landscape as well as brand new changes and challenges in domestic economic development. Reform and innovation will grow more efficient, more scientific and better-regulated, China's financial market will get extensively and deeply integrated into the international financial market, and it will provide robust support for China's economic growth under the New Normal.

3.1 Financial market innovation will gain momentum

Financial services will play a bigger role in bolstering the national innovation-driven development strategy, and green finance, carbon finance and old-age finance, among other things, will point to the direction of market innovation. First, innovative financial market institutions will continue to be rolled out. Under the precondition of well-regulated market developments, market players and intermediaries will be incentivized to promote instrument and product innovation. Market making will be introduced to gold market's price inquiry market, efforts will be made to explore the development of medium and long-term gold price benchmark system, and central custody and clearing mechanisms will be put in place on gold market. Innovation mechanism for financial derivatives will be improved, and an endogenous market innovation mechanism based on reasonable market demands will be developed. Second, green credit mechanisms will be gradually put in place and improved at commercial banks. More commercial banks will explore the development of green credit. Green and environmentally-friendly collaterals and pledges, including emission right, pollutant discharge right and right to returns on carbon assets, will be introduced gradually along with investment and financing mechanisms. Guidance and incentives will be offered to channel more private capitals to green industries, such as environmental protection, energy conservation, clean energy and green transportation. Efforts will be made to promote an industrial system featuring green, low-carbon and circular developments. Third, work on launching innovative financial products will be stepped up in all areas. Green financial products including green bonds will become new investment products on the market, relevant rules and regulations will be further clarified, and market players including third parties will be fostered and developed. Product system on gold market is to be improved, and new products are to be developed based on market demands. Selected financial derivatives will continue to be diversified in a step-by-step manner. Fourth, personal accounts for workers' old-age insurance will see further developments and improvements. As investment channels for social insurance fund continues to widen, market-based, diversified and professional investment operation will further promote the development of a multi-tiered old-age insurance system.

3.2 Financial market regulatory system will be improved

Institution building in macro-prudential management for financial sector will be advanced actively, and financial regulatory framework will continue to be reformed and improved so as to adapt to the development of modern financial markets. First, financial management regime will be improved. Macro-prudential and micro-prudential regulation will put more focus on complementarity. Monetary policy and prudential management will be better coordinated. Various institutional arrangements will be further improved, including product issuance, trading, clearing, settlement and custody. Research will be carried out on documents containing regulations on the compliance of market players in trading activities. Efforts will be made to explore market-based ways to straighten out various regimes and mechanisms, improve financial market infrastructures and promote a sound and regulated market. Second, consolidated regulation will be tighter. Regulation of cross-sector and cross-market financial activities will be further enhanced to fully cover emerging financial activities. Third, a single regulatory data sharing platform as well as a timely and full information exchange mechanism will be set up and improved gradually. The comprehensive financial statistical system tailored to new market developments will be strengthened and improved, along with the smooth and highly-efficient communication mechanism among regulators. Fourth, the deposit insurance mandate will continue to be improved. Risk identification and early warning mechanisms as well as limits on financial penalties will be established one by one and adjusted as necessary. Fifth, the credit-enhancing mechanism will be enhanced. Institutional arrangements for listed companies and enterprises issuing bonds to disclose information on environment will continue to be strengthened.

3.3 Two-way integration in the process of financial market internationalization will be deepened

New mechanisms for financial opening up and development will be established in line with new economic and financial developments. Two-way opening up of the financial sector and deeper integration of domestic financial markets into international financial markets will bring about brand new looks to opening up. First, international cooperation among financial institutions will be deepened. The Asian Infrastructure Investment Bank, BRICS New Development Bank, and Silk Road Fund will invite financial institutions from home and abroad to cooperate extensively. Second, the development of financial cooperation platform serving "One Belt One Road" will be accelerated. Open cooperation among various financial institutions, such as policy banks, sovereign wealth funds, industrial investment funds, insurance firms, and venture capitals will provide "One Belt One Road" with a diversified, win-win and continuously reliable financial safeguard. Third, two-way deeper financing will become available on multiple levels and in various areas. Liberalize RMB capital account in an orderly way and gradually lift domestic and foreign investment quota limits will strongly promote the two-way opening up of capital market, and more eligible overseas institutions will raise funds on domestic securities market. Efforts will be made to further include more eligible investors, optimize and improve supporting policies like fiscal and tax policies, and channel more long-term funds to the interbank bond market. The improvement of the international board on the Shanghai Gold Exchange will be expedited, and research will be conducted on introducing RMB-denominated gold price fixing to attract more overseas investors to China's gold market and increase China's influence and voice in international gold market.

Part II Money Market

In 2015, the money market enjoyed stable performance with all of its sub-markets, including the interbank funding market, bond repo market, commercial paper market and bill market witnessing substantially expanding trading volume. The market rates were significantly lower as compared with the previous year. In particular, benchmark rates on the interbank funding market and repo market declined gradually while yields of commercial papers were cut on the whole and the interbank discounting rate fell amid phased fluctuation.

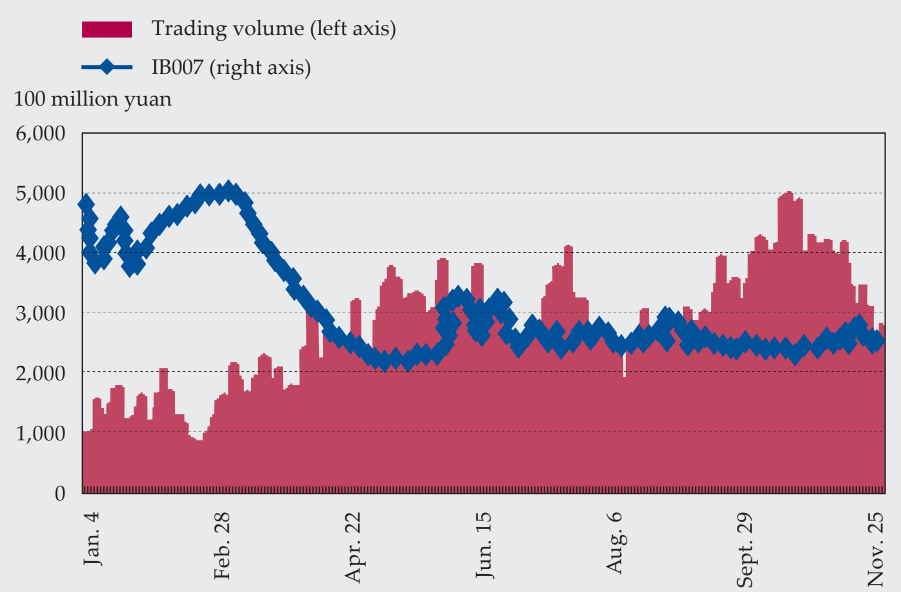
1. Interbank funding market

In 2015, the interbank funding market boasted stable performance, growing trading volume, declining benchmark rates and brisk trading with deepening market open-up.

1.1 Performance of interbank funding market

In 2015, the cumulative turnover of the interbank funding market reached 64.21 trillion yuan with an average daily turnover of 257.886 billion yuan, increased 71.18% as compared with 2014. The weighted average interbank funding rate of 2015 was 2.04%, 92 basis points (bps) lower than 2014. The maximum and minimum rates were 5.2% on March 9 and 2.1% on May 20, 144 bps and 23 bps lower than those of 2014 respectively. The annual spread was 310 bps, 120 bps lower than that of 2014.

Figure 2.1 Turnover and Interest Rates of the Interbank Funding Market in 2015



Source: National Interbank Funding Center.

Terms of interbank funding market transactions became increasingly shortened. The trading volume of transactions within 7 days hit 61.69 trillion yuan, taking a lion's market share of 96.08%, 1.55 percentage points higher over the previous year. Specifically, overnight trading represented 84.09% of the overall market transactions, 5.77 percentage points higher as compared with 2014. The trading volume of 7-day transactions accounted for 11.99% of the total or 4.22 percentage points lower than 2014. As for transactions with a term between 7 days and 3 months, the proportion of trading volume declined 1.58 percentage points to 3.79%. Trading volume of transactions with a term three months and beyond took up 0.13% of the market total, a modest increase of 0.04 percentage points as compared with 2014.

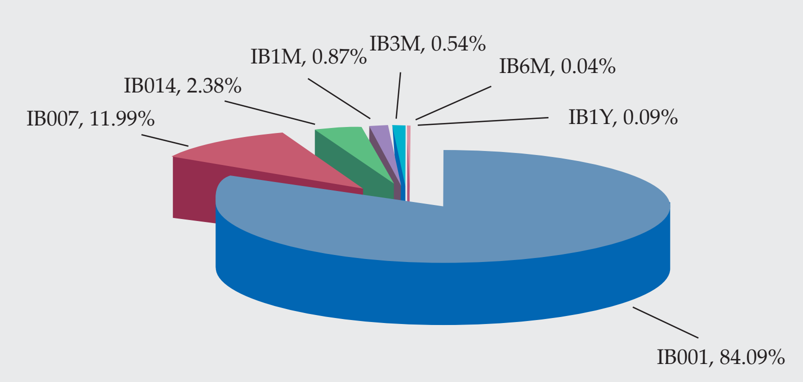
In 2015, banking institutions still dominate the interbank funding market. In terms of trading volume, the market share of banking institutions was as high as 85.55% while non-banking institutions took up 14.45%. Specifically, joint-stock commercial banks ranked the first place, accounting for 32.56% of the market total, which were followed by large-scaled commercial banks with a market share of 17.74%. Urban commercial banks, policy banks and foreign-funded banks took up 14.09%, 8.96% and 7.16% of the overall market trading volume respectively. As for non-banking institutions, securities companies and finance companies of conglomerates were active market participants, taking up a market share of 8.41% and 4.92% respectively.

1.2 Main features of interbank funding market performance

1.2.1 Trading volume enjoyed rapid growth

In 2015, trading volume of the interbank funding market grew substantially with monthly trading volume climbing up steadily. In the first half of the year, due to the factors such as monetary policy, rising financial asset prices, ballooning capital market size and falling financing cost for short-term funds, short-term

Figure 2.2 Terms of Interbank Funding Market Transactions in 2015



Source: National Interbank Funding Center.

liquidity demand was spiked, bolstering the funding activities on the interbank funding market. The market's monthly turnover climbed from 2 trillion yuan at the beginning of the year to around 6 trillion yuan in the middle of the year and maintained at the high level afterwards. In the forth quarter, liquidity on the money market sufficed as a result of the cumulative effects of the consecutive cutting of bench interest rate and required reserve ratio across the year and abundant liquidity in the bank sector released from the implementation of various monetary policy instruments. Moreover, since the formation regime of both interest rates and foreign exchange rates became more market-oriented, financial institutions were inclined to strengthening their liquidity management, stimulating the transactions on the interbank funding market with the market monthly turnover hitting its annul high of approximately 9 trillion yuan in November.

1.2.2 Interbank funding rate fell sharply with increasingly narrower fluctuation band

In 2015, the interbank funding rate declined after an initial climb-up and lingered around at a low level afterwards. The benchmark rate was much lower as compared with the previous year. At the beginning of the year, the seasonal effects on the short-term market were limited. Take the 7-day funding rate for example, the market rate climbed from 4% at the start of the year to reach its annul maximum of 5.2% before and after March. After that, the rate descended unilaterally to its annual minimum of 2.1% at end-May with the PBC's consecutive cutting of interest rates and required reserve ratio across the year. In the second half of the year, the short-term rate stabilized and descended slowly afterwards. The fluctuation band was narrowed down to 100 bps as compared with the first half of the year. The growing continuity and stability of the monetary policy as well as targeted presetting and fine-tuning of the policy played a positive role in adjusting liquidity and stabilizing market expectation.

1.2.3 The market structure remained almost the same

The interbank funding market was continuously featured by net lending from banking institutions and net borrowing from non-bank financial institutions. Specifically, large-scaled commercial banks were the most important net lenders with a cumulative annual net lending of 13.52 trillion yuan, accounting for 41.39% of the year's total. Policy banks and joint-stock commercial banks were the second and third largest market lenders and contributed an annual net lending of 10.61 trillion yuan and 8.16 trillion yuan, up 71.82% and 39.78% over 2014 and constituting a market share of 32.48% and 24.98% respectively. Among the non-bank financial institutions, securities companies and finance companies were the top 2 net borrowers with a cumulative net borrowing of 10.67 trillion yuan and 5.6 trillion yuan, a year-on-year increase of 183.78% and 216.38% and representing 32.67% and 17.14% of the market's total.

1.2.4 The market's opening-up accelerated

In recent years, against the background of accelerating RMB internationalization, the interbank funding market, with its ever-increasing opening-up, has become an important bridge and belt between domestic and overseas financial institutions. Noteworthy progresses have been made in promoting the funding scale, trading briskness and scope for qualified counterparties of overseas clearing banks on the interbank funding market. As of end-2015, a total of 6 overseas clearing banks had been granted the access to the interbank funding market with a cumulative trading volume of 744, 13 times that of 2010. The trading value grew 93 times from 2010 to 1.65 trillion yuan in 2015. In 2010, only state-owned commercial banks and joint-stock commercial banks could make qualified trading counterparties, which turned out to be only 3 commercial banks, while in 2015, 18 commercial banks made trading counterparities, which could be large-scaled commercial banks, joint-stock commercial banks, urban commercial banks and foreign-funded banks.

1.3 Outlook for interbank funding market

After years of development, the interbank funding market has established a mature regulatory framework with continuously improving infrastructure and increasingly diversified market participants. With the steadily growing trading volume and orderly opening up of the market, the market plays an important role in cultivating the liquidity management and pricing capabilities of financial institutions. Against the background of market-based reform and RMB internationalization, the interbank funding market will continue to complete infrastructure construction, promote the building of a market-based regulatory system and boost market opening-up both on the domestic and overseas market so as to nurture a fair, transparent and efficient market environment for market participants.

2. Bond repo market

In 2015, the trading size of the bond repo market witnessed substantial increase. The average transaction terms shortened as compared with the previous year and the repo rate substantially fell down. Policy financial bonds became the most important underlying assets of bond repo transactions. Large-scaled commercial banks, policy banks and joint-stock commercial banks were net lenders of the market.

2.1 Performance of bond repo market

In 2015, the cumulative turnover of the repo transactions on the interbank bond market hit 457.76 trillion yuan, a year-on-year increase of 104.2%. In particular, the cumulative turnover of the pledged repo grew 103.56% year-on-year to 432.41 trillion yuan, while the cumulative turnover of the outright repo reached 25.35 trillion yuan, an increase of 115.74% over that of 2014. The cumulative turnover of exchange bond market standard coupon amounted to 15.04 trillion yuan, up 40.7% over the previous year.

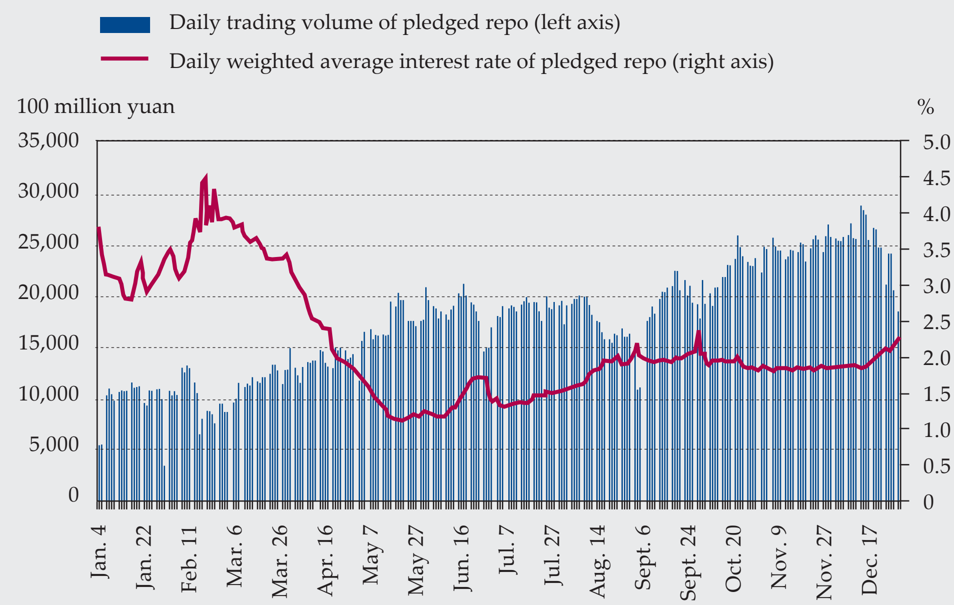
In 2015, the repo rate declined with narrower fluctuation band. The weighted average interest rate of the pledged repo descended 79 bps year-on-year to 2.19%. The maximum and minimum rates reached 4.51% on February 17 and 1.13% on May 20 respectively with a noteworthy annual spread of 338 bps. The weighted average interest rate of the outright repo fell 81 bps to 2.63% with an annual spread of 363 bps.

2.2 Main features of bond repo market

2.2.1 Market size of the bond repo market grew significantly

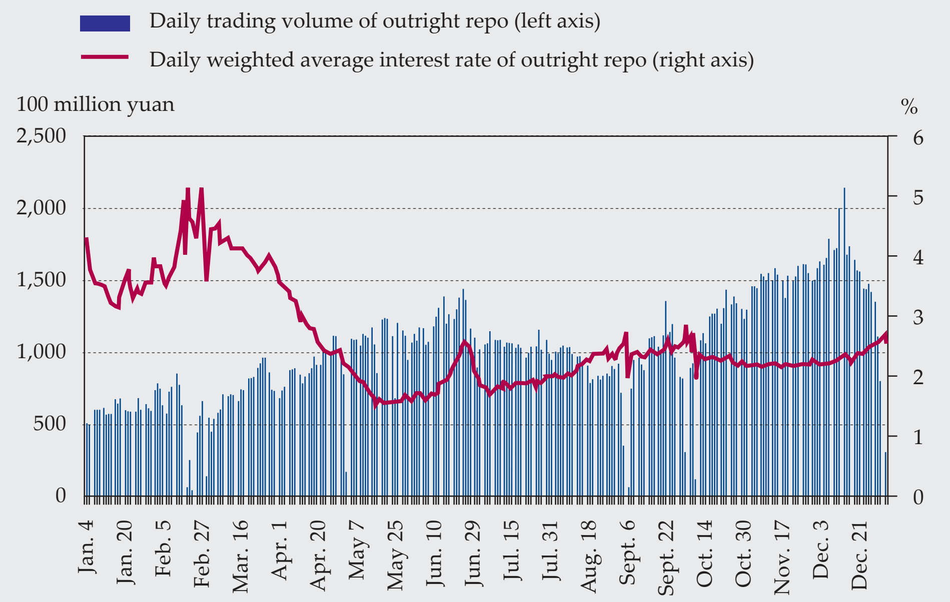
In 2015, market size of the interbank bond repo market witnessed substantial expansion. The market's turnover increased by 104.2% over the year earlier, 62.47 percentage points higher than the 41.73% of 2014. Turnover of the outright repo and pledged repo grew 115.74% over that of 2014.

Figure 2.3 The Turnover and Interest Rates of the Pledged Repo in 2015



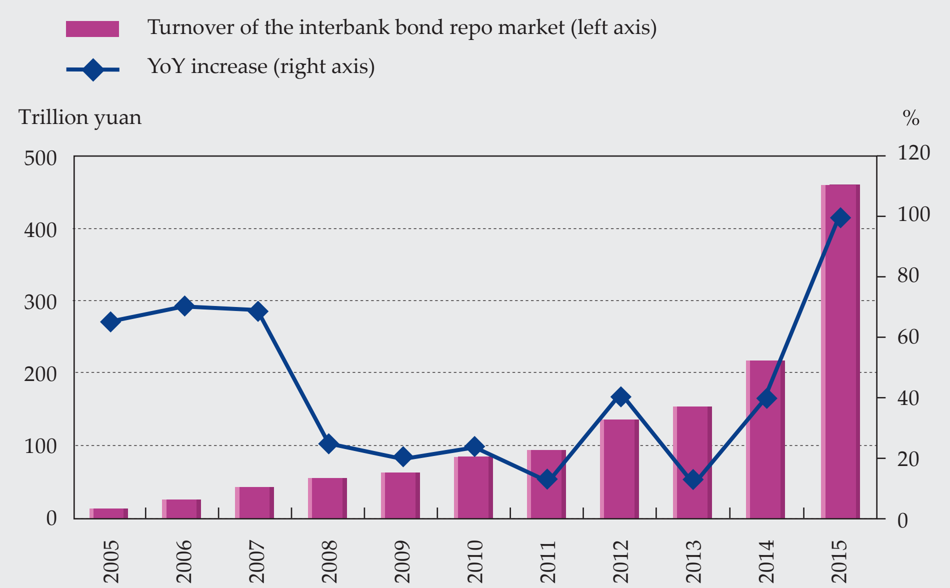
Source: www.chinamoney.com.cn.

Figure 2.4 The Turnover and Interest Rates of the Outright Repo in 2015



Source: www.chinamoney.com.cn.

Figure 2.5 Market Size and Growth Rate of the Bond Repo Market, 2006—2015



Source: www.chinamoney.com.cn.

2.2.2 Maturity of bond repo transactions shortened

In terms of the term structure, less-than-7-day products accounted for 96.26% of the overall pledged repo transactions, 4.25 percentage point higher than that of 2014. Specifically, overnight products continued to trade briskly with an annual turnover of 370.09 trillion yuan, 85.59% of the total and 7.01 percentage points higher than that of 2014. 7-day products represented 10.67% of the total, down 3.47 percentage point over that of the previous year. 14-day-and-plus products saw a modest decline in market share. In particular, turnover of 14-day products accounted for 2.64% of the overall pledged repo transactions, down 1.88 percentage point over that of 2014,while the proportion of the turnover of 21-day-and-plus products declined 2.63 percentage point from 2014 to 1.09%.

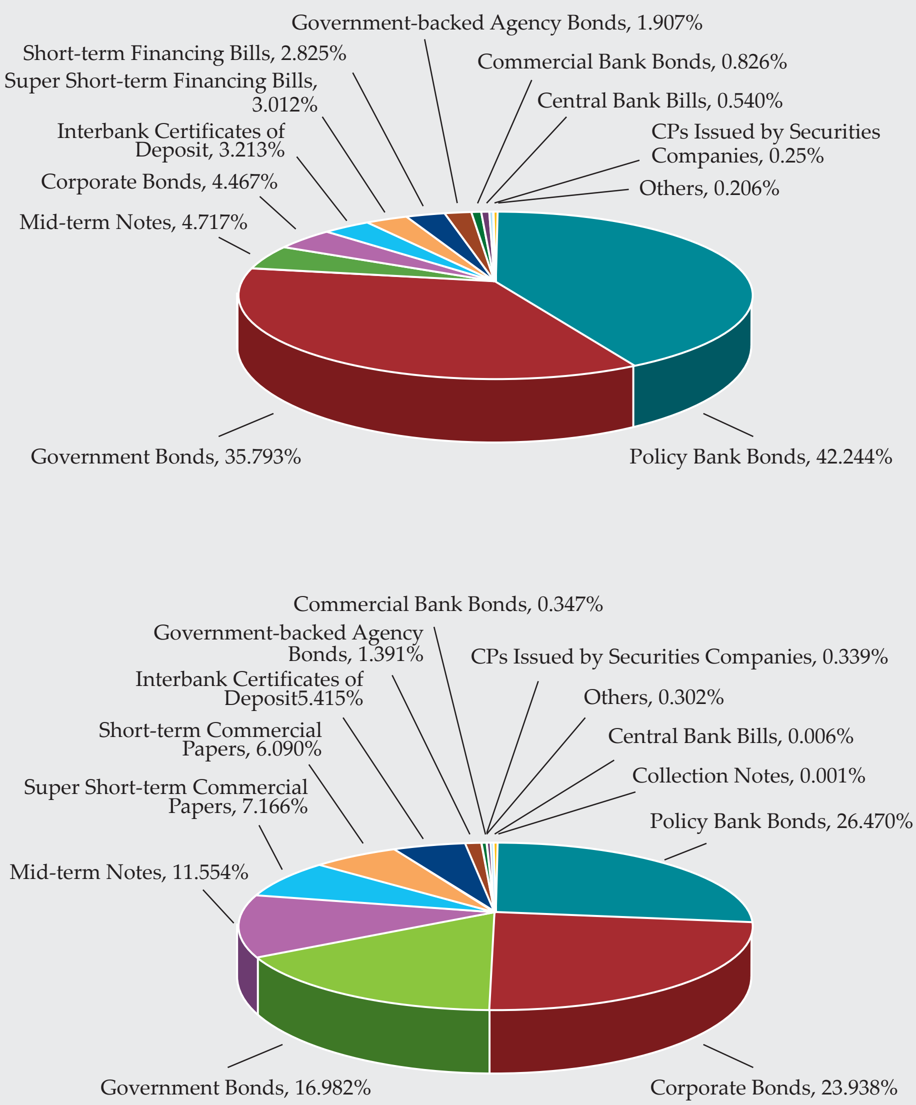
The maturity of outright repo transactions continued the shortening trend that started in the year earlier. 7-day and less-than-7-day products took up 92.49% of the total outright repo transactions, growing 9.47 percentage points over 2014.

2.2.3 Policy bank bonds became the most important underlying assets for bond repo transactions

In 2015, treasury bonds, central bank bills and policy financial bonds accounted for 76.75% of the underlying bonds for pledged repo, down 2.34 percentage points over that of 2014. Specifically, the proportion of central bank bills as underlying assets for repo transactions decreased from 0.76% in 2014 to 0.54%, maintaining the declining trend that started from 2009, whereas the proportion of commercial papers (CPs), super short-term commercial papers (SCPs), mid-term notes and corporate bonds amounted to 14.99% altogether, maintaining almost the same level as compared with 2014.

In 2015, the added-up proportion of treasury bonds, central bank bills and policy financial bonds as the underlying assets for outright repo transactions stood at 43.57%, 1.87 percentage point lower than that of 2014. The proportion of CPs, SCPs, mid-term notes, collection notes and corporate bonds as the underlying assets for outright repo transactions grew from 51.3% in 2014 to 54.03%, 2.73 percentage points higher than that of 2014. Corporate debenture bonds were gradually accepted as the collaterals of repo transactions.

Figure 2.6 Structure of Underlying Assets of Pledged Repo (Left) and Outright Repo (Right) on the Interbank Bond Market in 2015



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

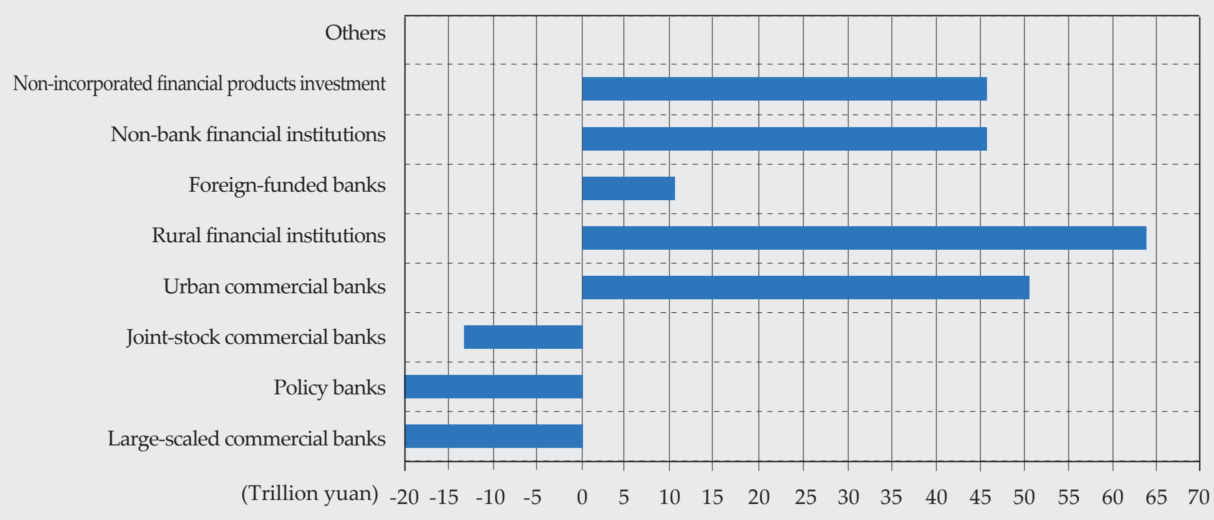
2.2.4 Large-scaled commercial banks were net lenders

In terms of the fund flow of the repo market in 2015, large-scaled commercial banks, policy banks and joint-stock commercial banks were the top three lenders, which contributed a net lending of 102.99 trillion yuan, 101.29 trillion yuan and 13.31 trillion yuan respectively. The top three borrowers were urban commercial banks, rural commercial banks and rural cooperative banks as well as securities companies with a net borrowing of 50.55 trillion yuan, 40.6 trillion yuan and 36.46 trillion yuan respectively.

2.2.5 The repo rate and the interbank funding rate were highly synchronized

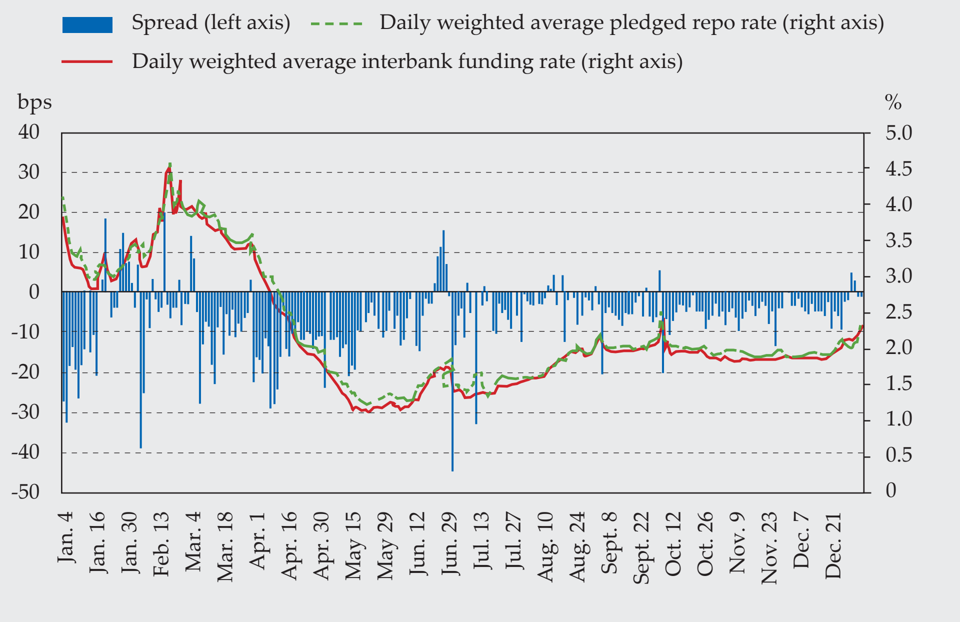
In 2015, the correlation coefficient between the daily weighted average rate of pledged repo and the interbank funding rate was 0.99. The repo rate and the interbank funding rate were highly synchronized in movement. In terms of the spread, the average spread of the two rates was 9 bps, 1 bp higher than that of the previous year. 66.27% of the 250 trading days across the year saw a spread narrower than 10 bps.

Figure 2.7 Turnover of Institutional Investors on the Bond Repo Market in 2015



Note: 1. The numbers illustrated in the figure were net turnovers, which equal to the turnovers of repo transactions minus those of reverse repo transactions.
2. Large-scaled commercial banks include Industrial and Commercial Bank of China, Construction Bank of China, Agricultural Bank of China, Bank of China, Bank of Communications and Postal Savings Bank.
3. Policy Banks still include China Development Bank.
4. Joint-stock commercial banks exclude Bank of Communications.
5. Rural financial institutions include rural commercial banks, rural cooperative banks, rural credit unions and village banks.
6. Non-bank financial institutions include securities companies, fund companies, finance companies, insurance companies, asset management companies affiliated to insurance companies, asset management companies and trust & investment companies.
7. Non-incorporated financial products investment include funds, asset management businesses for designated clients of fund companies, securities asset management businesses of securities companies, insurance products of insurance companies, social insurance funds, pension funds, asset management businesses of commercial banks, financial products of trust companies and other investment products.
Source: www.chinamoney.com.cn.

Figure 2.8 The Movement of the Repo Rate, the Interbank Funding Rate and the Spread in 2015



Source: www.chinamoney.com.cn.

In 2015, the repo rate descended drastically after fluctuating upwards and crawled back within a narrow band afterwards. In terms of the weighted average daily pledged repo rate, the rate soared from the beginning of the year to hit its annual maximum of 4.51% in February and crawled back afterwards to reach its annual minimum of 1.13% on May 22. The rate spiraled up within a narrow fluctuation band afterwards.

2.3 Perspectives on the future development of the bond repo market

Looking into 2016, with the start of the 13th Five-year Plan and the implementation of development concepts of innovation, coordination, green, openness and sharing, China's economy will enter into a new development stage and the monetary policy stance will remain prudent, creating a moderately easy monetary environment for economic restructuring and transformation. In 2016, the interbank bond repo market will maintain stable and sound growth momentum. First, against the backdrop of ample liquidity and low market interest rates, the interbank bond repo market will continue to witness brisk trading and steadily expanding market scale. Second, due to the promotion of the two-way opening-up of China's financial sector and the implementation of the strategy of building Shanghai into an international financial market based on the pilot work in Shanghai Pilot Free Trade Zone, more and more overseas institutions will take part in the interbank bond repo market and the trading volume is expected to grow. Third, with ballooning market scale and increasing domestic and overseas market participants, institutional construction of the interbank bond repo market will undergo further improvement. The market's legal regulations, accounting standards, regulatory rules and infrastructure construction will gradually be in line with international practices.

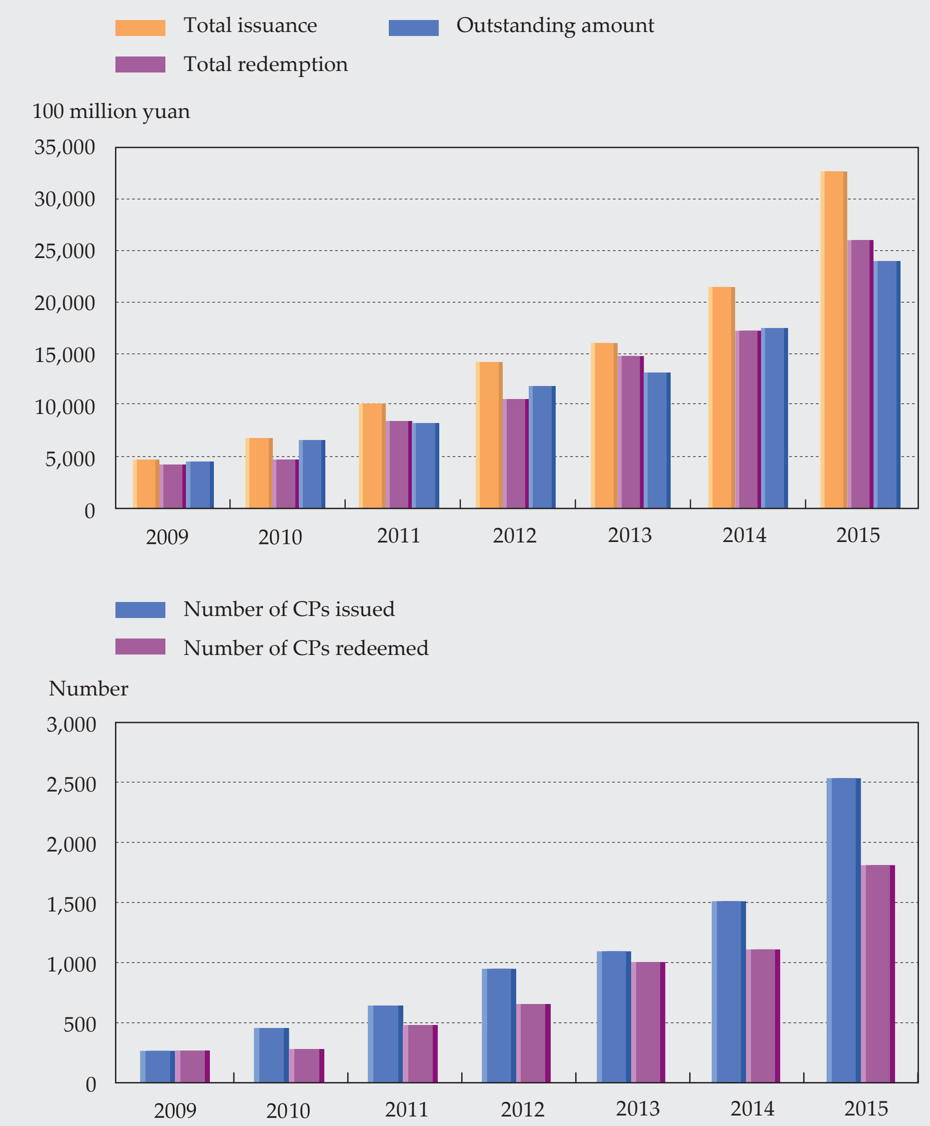
3. Commercial paper market

In 2015, the CP market maintained sound growth momentum. On the primary market, the issuance volume witnessed a substantial growth and the market stock continued to expand. The secondary market boasted stable operation with the turnover of spot trading increasing continuously. The yields on the secondary market dipped across the year.

3.1 Performance of commercial paper market

In 2015, non-financial enterprises issued cumulatively 2,538 commercial papers, a year-on-year increase of 67.3%, with the face value growing 50.35% year-on-year to 3,272.73 billion

Figure 2.9 Issuance and Redemption of CPs, 2009—2015



Source: National Association of Financial Market Institutional Investors (NAFMII).

yuan. Over the year, a total of 2,342.083 billion yuan was redeemed. In 2015, the outstanding CPs amounted to 2,598.96 billion yuan, a year-on-year increase of 49.92%. In 2015, the average issuance volume of each CP hit 1.289 billion yuan, 145 million yuan less as compared with 2014. In 2015,a total of 39 securities companies issued 171 CPs, 81 less as compared with the year earlier, with the cumulative issuance value dropping 33.1% from 2014 to 275.36 billion yuan.

The operation of the secondary market of CPs remained stable with spot trading climbing up month-on-month. For the year of 2015, the monthly spot trading volume of non-financial institutions increased from 639.354 billion yuan in January to 1,468.94 billion yuan in December, a growth rate of 129.75%. The annual spot trading volume accumulated to 11.8 trillion yuan over the year, 120.62% higher than that of the previous year.

3.2 Main features of CP market performance

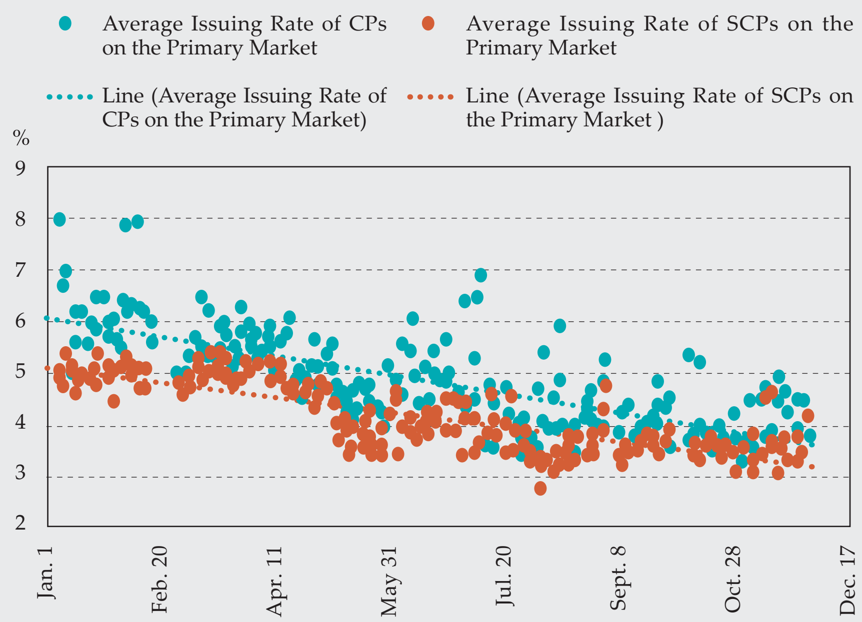
3.2.1 SCPs enjoyed rapid development

In 2015, the proportion of the issuance of SCPs was noticeably raised. In terms of the issuance number, SCPs took up 56.38% of the total CPs issued by non-financial enterprises (including SCPs), up 27.11 percentage points over 2014. As for the issuance value, SCPs represented 70.41% of the total, 19.67 percentage points higher than that of 2014. The rapid growth of the market size of SCPs helps meet the super short-term liquidity demand of issuers and enables issuers to mange liquidity more flexibly.

3.2.2 Issuing rates and market yields declined

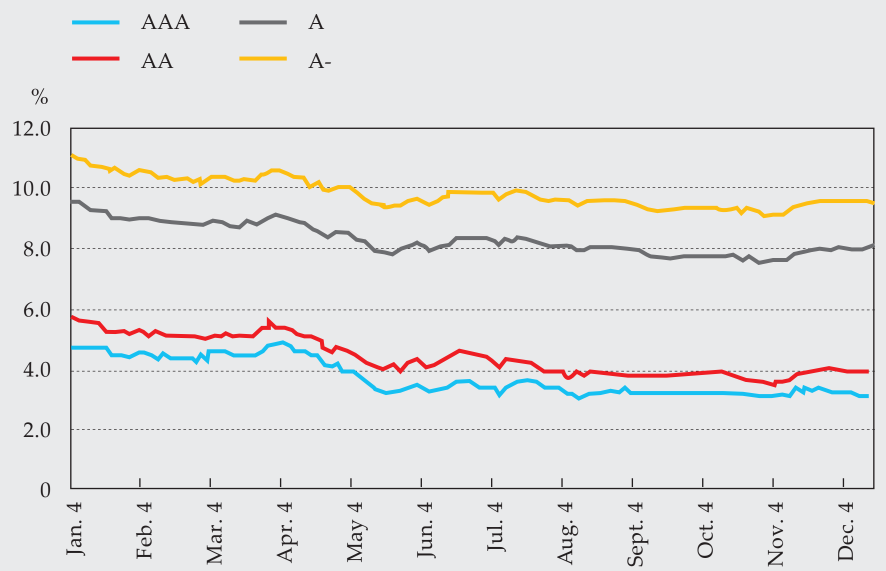
In 2015, the movement of the issuing rates of CPs synchronized with that of money market rates, bringing into full play the role of debt financing instrument market in transmitting interest rate policies. For the year of 2015, the

Figure 2.10 Issuing Rates of CPs on the Primary Market in 2015



Source: Shanghai Clearing House.

Figure 2.11 Movement of Yields of CPs on the Secondary Market in 2015



Source: China Central Depository & Clearing Co., Ltd.

weighted average issuing rate of CPs (including SCPs) stood at 4.02%, 1.77 percentage points lower as compared with the lending rate (5.79%). Taking into account the annual issuance value of 3.09 trillion yuan and the average maturity of 0.73 year, we can calculate around 39.9 billion yuan that have been saved as a result form lower interest payments.

In terms of the yields on the secondary market, the yields of the CPs issued by non-financial institutions fell substantially from January to March and picked up in mid and late March. From the beginning of April, the yields resumed the downward path. As of end-2015, yield on the secondary market of one-year AAA, AA and A CPs reached 2.8734%, 3.7234% and 8.0934%, down 184 bps, 190 bps and 144 bps as compared with the beginning of the year respectively, resuming the declining trend that started in 2014.

3.2.3 Credit ratings of issuers upgraded

In 2015, credit ratings of CP issuers continued to climb up with the number of issuers with credit ratings of AA and plus, the number of issuance and issuance value on the rise. Specifically, AA-and-plus enterprises issuers took up 93.6% of the total, a year-on-year growth of 7.71%, with the total number of issuance growing 74.19% over the year earlier to 2,268 and the cumulative issuing value hitting 3,243.4 billion yuan, up 41.27% as compared with the previous year.

3.2.4 Investor structure underwent further diversification

The structure of the holders of CPs (including SCPs) was further optimized. As of end-2015, collective investors including wealth management products of banks, funds, trusts and asset management products had become the largest holders of CPs, taking up 65.44% of the total, a substantial increase of 9.08%

over end-2014. The proportion of holdings by commercial banks drastically declined 10.69 percentage points over the end of 2014 to 25.42%. Non-banking institutions such as securities companies and credit unions continued to increase their holdings of CPs. To be specific, insurance companies, credit unions and securities companies representing 3.82%, 1.72% and 2.93% of the market total.

3.3 Development outlook of CP market

The year of 2016 marked the start of the 13th Five-year Plan. In line with the keynote of economic development, i.e. to make progress while ensuring stability, the government will go to great length to maintain the economic growth rate within a proper range and promote structural reform. From the perspective of issuers, demand for fund raising of non-financial institutions will remain stable and scale of the CP market is expected to grow steadily. Since the restrictions on the qualification of SCP issuers was eliminated in November 2015, all the incorporated non-financial enterprises are entitled to registration for issuance of CPs. Therefore, it is foreseeable that SCPs will enjoy greater market popularity in 2016. In terms of investors, trust products, asset management schemes of securities companies, asset management schemes of funds and their subsidiaries as well as asset management products of insurance companies were approved by the PBC to go back to the interbank bond market in December 2014. After that, in June 2015, private equity funds were also granted the market access. The participation of new qualified investors in the debt-equity market will help enrich the investors on the CP market and optimize the investor structure.

4. Bill market

4.1 Performance of bill market

4.1.1 The growth rate of bill issuance decelerated

In the midst of economic slowdown and continuous advancing of economic restructuring, banking institutions attached greater importance to the selection of clients regarding the acceptance business of commercial drafts. In 2015, 22.4 trillion yuan worth of commercial drafts were issued, a year-on-year increase of 1.3%. The balance of undue commercial drafts reached 10.4 trillion yuan at the year-end, up 5.4% year-on-year. In comparison with the previous year, the growth rate of issuance value and outstanding balance declined 7.6 and 3.9 percentage points respectively. On the contrary, issuance of electronic commercial drafts continue to maintain high growth momentum, with the cumulative issuance volume and issuance value hitting 1,340.8 thousand and 5.6 trillion yuan respectively, up 58.7% and 78.9% over the year earlier.

4.1.2 Bill financing business continued to witness fast expansion

Against the backdrop of mounting downward pressure on economic operation and aggravated credit risks, banks went to great lengths to conduct the discounting businesses of commercial drafts, bringing into full play the role of bill business as the adjustor of credit scale, and hence the bill discounting businesses boomed. In 2015, the cumulative value of bill discounting businesses of financial institutions stood at 102.1 trillion yuan, a year-on-year growth of 68.2%, while discounted bill balance amounted to 4.6 trillion yuan at the year-end, 56.9% more than the previous year. In particular, electronic bill financing business continued to enjoy rapid growth. The discounting volume of electronic commercial drafts posted 495.4 thousand with a cumulative discounting value of 3.73 trillion yuan, up 110.5% and 148.8% over 2014 respectively. A total of 1,557.1 thousand interbank discounting businesses were handled with a cumulative value of 22.13 trillion yuan, a year-on-year growth of 217% and 360.4% respectively.

4.1.3 Interest rates on the bill market declined

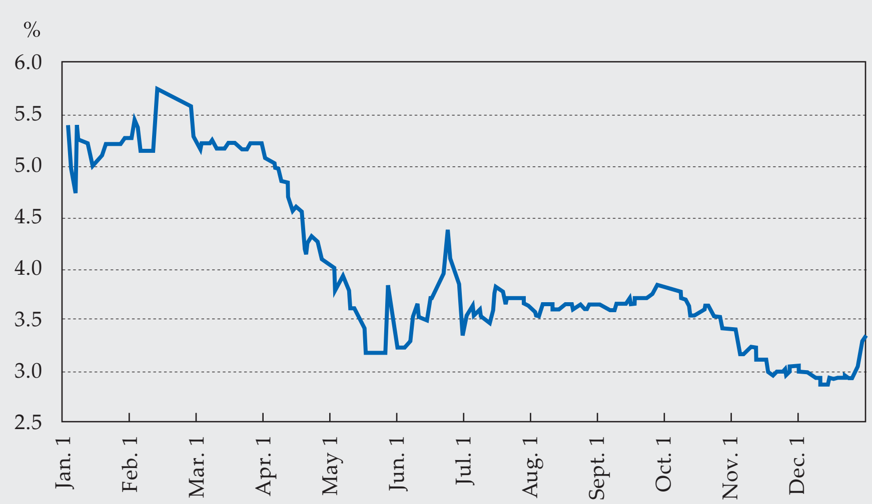
Due to the ample liquidity of the banking system, the money market rate continued to decline across the year. Besides, the credit policy stance remained loose, reinforcing institutions' willingness to allocate bill assets. Therefore, oversupply on the bill market pushed down the discounting and interbank discounting rates with volatility. On the whole, the movement of bill market rate could be divided into the following five stages. The rate lingered at the high level in the first quarter and plummeted in April and May. The rate witnessed a sharp rally followed by a quick retreat in June. After that, the rate fluctuated narrowly at a low level in the third quarter. In the fourth quarter, the rate marched quickly lower and rebounded a little bit afterwards.

4.2 Main Features of bill market performance

4.2.1 The bill market played a noticeably supporting role for the real economy

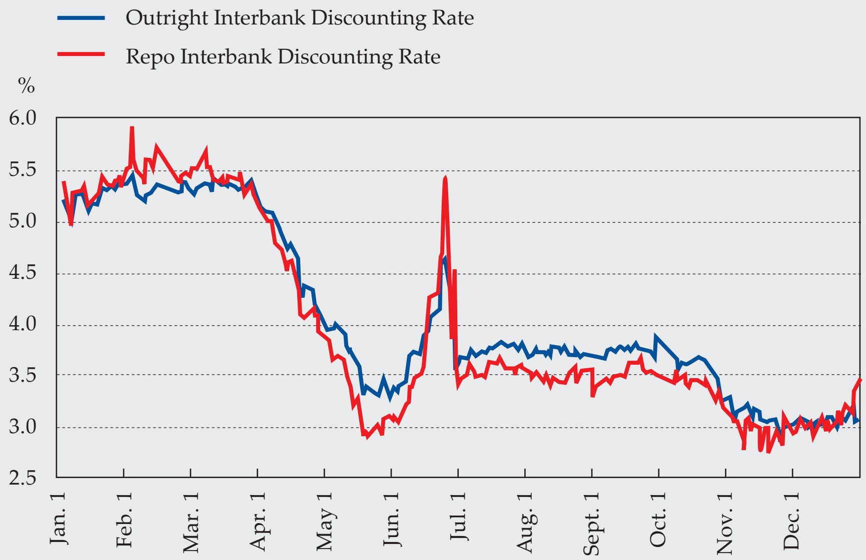
Since 2015, with the continuous slowdown of economic growth and growing pressure on traditional large-scaled enterprises to draw down stocks and deleverage, the bad debt ratio of the banking sector continued to climb up, dampening banks' willingness to lend. Therefore, bill financing business, with its characteristics of low cost, low capital constraint

Figure 2.12 Movement of 6-month Discounting Rate in 2015



Source: Wind Info.

Figure 2.13 Movement of Interbank Discounting Rate in 2015

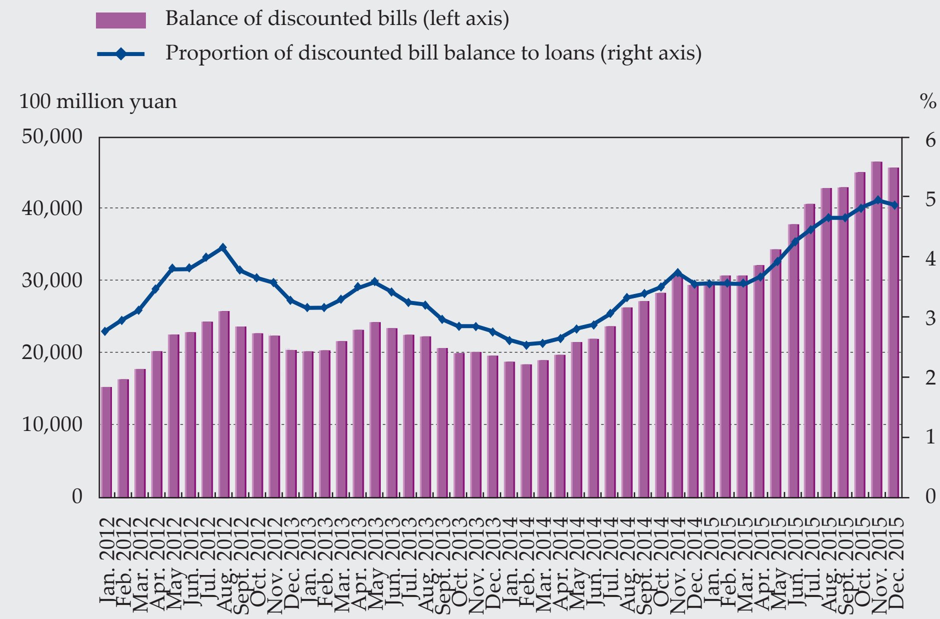


Source: www.chinacp.com.cn.

and low risks, became more and more popular among enterprises and banks. The bill financing scale ballooned and so did the proportion of bill financing balance to RMB loans. The cumulative annual discounting value hit 102.1 trillion yuan, surpassing 100 trillion yuan for the first time. As of end-December, the nationwide bill financing balance of financial institutions amounted to 4.6 trillion yuan, 170 million yuan more as compared with the end of the previous year, while the proportion of bill financing balance to loans climbed 1.3 percentage points over end-2014 to 4.9%. Taking the view from different quarters, the nationwide bill financing balance of financial institutions grew by 164.3 billion yuan, 704.8 billion yuan and 531.1 billion yuan in the first three quarters, or quarter-on-quarter growth rate of 5.6%, 21.9% and 14.1% respectively. The bill financing scale added up to 326.2 billion yuan in October and November, while in December, the bill financing scale shrank 63.4 billion yuan or 1.37% as compared with the previous month, marking the first month in the year to witness a declining bill financing scale.

In terms of the structure of issuers, bank acceptance issued by SMEs accounted for 2/3 of the total. Therefore, the rapid development of the bill market alleviated the financing burden of SMEs to a great extent and hence the bill market boasted irreplaceable advantages as compared with other markets. First, the access threshold to the bill financing market was relatively low. Enterprises that had real trade background and could provide relevant documents including contracts and invoices and find acceptors with appropriate credit ratings were entitled to raising funds on the bill market. Second, bill financing was also cost-efficient. When applying for the issuance of bank acceptance, enterprises only easily obtained

Figure 2.14 Overview of Bill Financing, 2012—2015



Source: PBC.

bank credit after paying a small amount of commission charge. Moreover, when enterprises applied for the discounting business of bank acceptance, the applicable discounting rate was usually lower than the lending rate with the same maturity. Last, bill financing could boost the credit rating of small and medium-sized as well as micro-sized enterprises. When issuing bank acceptance, enterprises got credit increment with bank credit. Therefore, micro and small-sized enterprises could enjoy market recognition and in this way promote the completion of transactions and the circulation of commodities.

4.2.2 Interbank discounting business enjoyed brisk trading and the bill market rates slumped

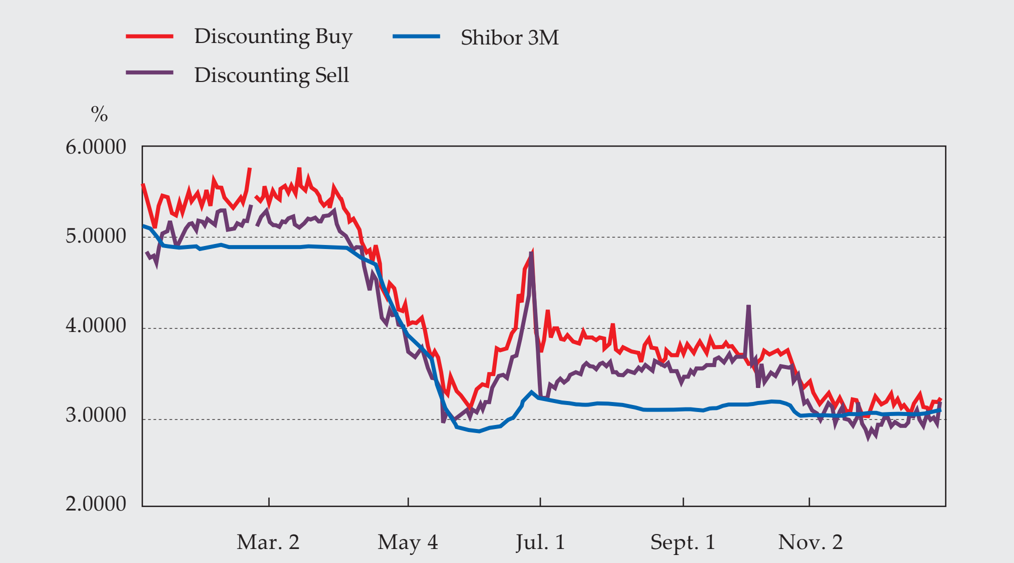
The PBC has cut the benchmark deposit rate and lending rate as well as the required reserve ratio for a number of times amid sluggish macro economy since the beginning of the year, creating an easy environment for both credit scale and market liquidity and pushing down the bill market rates on a continuous basis. In a bid to lift the overall yields of he bill businesses, financial institutions were actively involved in bill asset transactions, gaining spread from the fluctuation of bill rates. According to the data on www.chinacp.com.cn, in 2015, the cumulative quotation outright buy value and outright sell value hit 7.33 trillion yuan and 4.67 trillion yuan respectively and the proportion of outright buy value to outright sell value stood at 1.57, a manifest demonstration of commercial banks' strategy of purchasing bills to expand credit scale in the midst of current loose credit and monetary environment and sluggish economy.

With market rates declining continuously, interbank discounting rates sank, hitting a historic new low since 2011. According to the quotation value on www.chinacp.com.cn, the weighted average interbank discounting buy rate and sell rate posted 5.4% and 5.05% respectively in January 2015, down 50 bps and 45 bps as compared with December 2014. The financial market policies were relatively stable and interbank discounting rate fluctuated within an increasingly narrower band from February to March. In the second quarter when the central bank started to cut the RRR and interest rates, the interbank discounting rate reentered into the downward path. The weighted average interbank discounting buy rate on www.chinacp.com.cn stood at 4.84% in April, a month-on-month decline of 64 bps. The rate dipped again to reach 3.7% in May. From June to early July, due to the end-of-half-year effects, IPO of large-cap stocks and sharper volatility of the stock market, the regulatory authorities strengthened their efforts to maintain the stability of the financial market, pushing up the interbank discounting rate. The rate rebounded to 3.8%-3.9% in a short period of time. The rate fluctuated downward after that due to the sufficiency of market liquidity. At end-October, the central bank once again cut both the required reserve ratio and interest rates and the rate dipped to below 3%. The rate lingered around 3% at the year-end when market participants were more prudent and market liquidity more balanced.

The reasons for the slump of bill market rates were as follows:

First, the bill assets, as investment products, led the downward movement of bill market rates. The bill market, a sub-market of the money market, is featured by the characteristic of investment and hence the bill market rate is correlated with the interbank funding rate and the repo rate. Wide spread will trigger market arbitrage, keeping the price difference at a proper level. In term of market liquidity, the

Figure 2.15 Quotation of Discounting Buy and Sell Rates in 2015



Source: www.chinacp.com.cn.

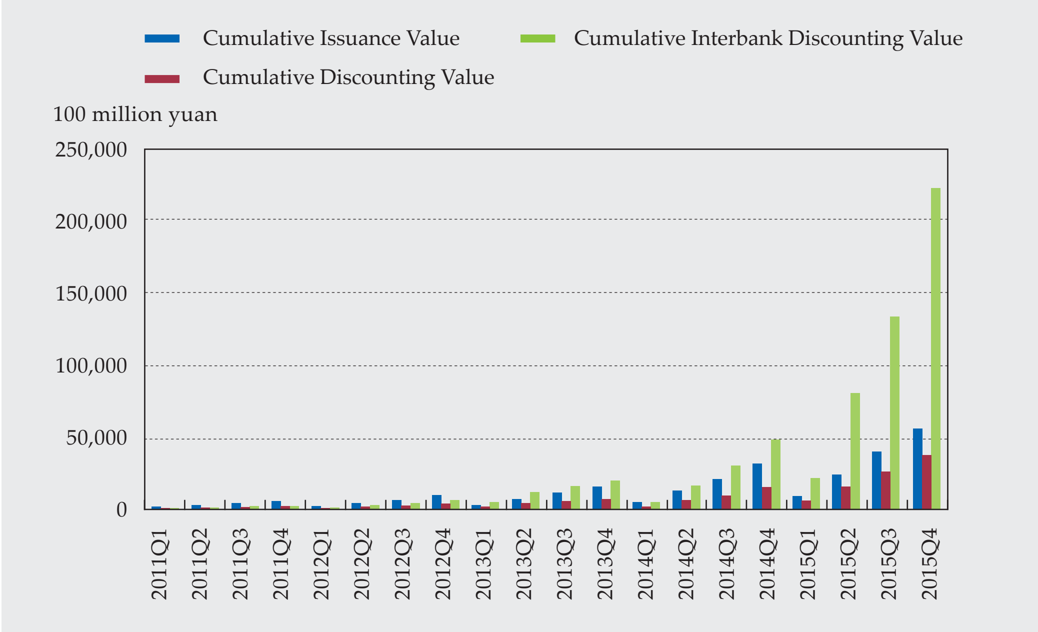
PBC continued to implement prudent monetary policy in 2015, cutting the required reserve ratio and interest rates for a number of times. Ample market liquidity brought down the money market rates including the bill market rates.

Second, institutional investors' strong willingness to purchase bill assets cut back on the bill rates. With the macro economy entering into New Normal, the availability of assets with high yields and relative safety including the loans of regional financing platform and real estate development was impaired. Commercial banks were plagued with asset hunger, giving the bill assets advantages over other assets. On one hand, commercial banks could employ bill assets to maintain the desirability credit scale at times of insufficient credit injection. On the other hand, bill assets, as interbank assets, could effectively save the capital and raise the yields on capital. Therefore, in the midst of current economic downturn, commercial banks' battle for bill assets brought down the bill market rates.

4.2.3 Electronic bill market witnessed rapid development

In recent years, the bill market became increasingly electronicalized, as the electronic commercial draft businesses enjoyed fast development. The cumulative acceptance value, discounting value and interbank discounting value of electronic commercial drafts grew from 536.9 billion yuan, 171.6 billion yuan and 215.1 billion yuan in 2011 to 5.6 trillion yuan, 3.73 trillion yuan and 22.13 trillion yuan in 2015 respectively. On the whole, electronic commercial drafts saw fast growing acceptance value and acceleratingly expanding trading volume, reflecting that they became widely recognized among enterprises and their liquidity on the interbank market had been

Figure 2.16 Quarterly Cumulative Issuance Value, Discounting Value and Interbank Discounting Value of Electronic Commercial Drafts, 2011—2015



Source: PBC.

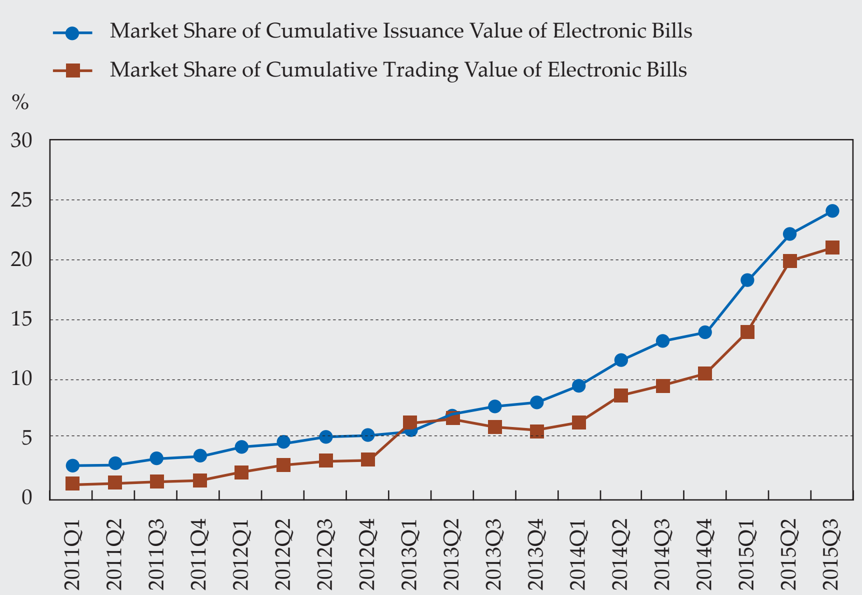
substantially improved.

In terms of the market share of electronic bill businesses, the proportion of electronic commercial drafts grew from 3.6% in 2011 to 25% in 2015, while the proportion of the trading volume (the added-up value of discounting and interbank discounting) climbed from 1.2% in 2011 to 25.3% in 2015. Therefore, the market share of the electronic bill businesses shore up acceleratingly. The main reasons were that the bill market witnessed a growing demand while greater risks of paper-based bill transactions were exposed and the credit scale factor was weakening. Therefore, as the electronic bill businesses were effective, convenient and secure, financial institutions were more willing to conduct the electronic bill businesses. More and more commercial banks sought for proxy access to the electronic commercial draft system.

4.2.4 The "Internet plus" Initiative pushed forward the innovation of the bill market

In an era of "Internet plus", commercial bills, as a traditional fund raising business, become increasingly electronicalized and networked. Apart from the commercial electronic draft system developed by the PBC, intranet electronicalized systems of paper-based bills and trading platforms also come into being in some banks so as to realize the system-wide electronicalized and networked bill transactions. The trading platform can be employed to sell bill-related asset management products. Some banks also provide to institutions outside the system comprehensive services related to the electronicalization of paper-based bills, including the custody, quotation, trade matching, clearing, risk control and statistics. Some bill business agent institutions, Internet companies, P2P platforms and e-commerce

Figure 2.17 Market Share of Quarterly Cumulative Issuance Value and Trading value of Electronic Bills, 2011—2015



Source: PBC.

enterprises also make use of their client or platform advantages to be actively involved in bill businesses and set up online bill businesses brokerage platform, providing the services of information transmission, trade matching, transaction and back-office support or participating into the bill businesses on their own.

The booming of "Internet plus" bill businesses is the inevitable two-way selection of the trading counterparties in the era of Internet. Against the backdrop of both individual and banks plagued with asset hunger amid sluggish macro economy, huge amount of funds flow from large banks to large-scaled enterprises to seek for humble interest income. As for the vast number of SMEs, their financing channels remain choked and financing demand can hardly be met, forcing them to resort to alternative financing channels other than the banks. Internet bill wealth management products make a bridge between the investors and SMEs seeking for funding, provide a platform for two-way selection of the trading counterparties and boost the market efficiency. Although the policy compliance and legality of bill financing are still uncertain, it undoubtedly meets the growing funding demands of SMEs and partly solves their problems in fund raising. At the same time, bill financing also provides the investors with an investment channel that is featured by easy access and low risks.

4.3 Outlook for bill market development

As the macro economy enters into New Normal and financial reform marches forward, the bill market also asks for reforming the regulatory system and boosting infrastructure construction. Right now, the bill market is the only market that still operates in a low-efficient manner and with outdated infrastructure. The existing operation mode of the bill market is centered on paper-based intermediary, over-the-counter transactions, inquiry trading and collection reliant on mankind. Therefore, it is imperative to improve the bill market infrastructure construction and reform the regulatory mechanism, which will bring both opportunities and challenges to the traditional bill businesses of commercial banks.

4.3.1 Infrastructure construction of the bill market will advance steadily

The current bill market, centered on paper-based bills and OTC transactions, is confronted with many problems, including market segmentation, low-efficiency in resource allocation, hefty transaction costs, lack of information transparency and regulatory loopholes. At the same time, the market is tasked with the responsibilities of serving the development of the real economy and providing funding for SMES, all of which and especially the latter can hardly be achieved under the existing market conditions. Although banks, bill business agents and Internet companies are striving to develop various bill information platforms so as to meet market demand, those platforms are riddled with the problems of lack of necessary functions, lack of authorization and lack of public credibility. Accordingly, only when the market infrastructure construction is further improved can the market's role of serving the real economy be brought into full play with dispersed risks. The establishment of a unified nationwide platform for bill registration, custody and trading will mark an important stride forward in the development of the bill market and will for sure exert far-reaching impact on the future development of the bill market. First, the market liquidity will be substantially improved while both market access barrier and interest rate will be cut, promoting the effectiveness of the bill market service for the real economy. Second, the market segmentation can be broken down so as to solve the problem of overly concentration of resources in developed countries and promote the coordinated development of the market and realize appropriate allocation of resources. Third, the bill businesses will be more regulated and standardized and market participants will be diversified so as to guide funds outside the banking system to flow directly to the real economy and raise the proportion of direct financing. Forth, electronicalization of the bill businesses and market transparency will be further enhanced and operating risks and transaction costs will be cut back, boosting the market performance and regulatory efficiency. Fifth, the development of bill market derivatives will be spurred, giving rise to more risk management instruments and investment products.

4.3.2 Bill businesses of commercial banks will be confronted with greater risks

As the economic operation enters into New Normal, structural adjustment will surely break down the original market framework, asking for the corresponding reform of financial policies and regulatory mode. It is foreseeable that financial reform will be deepened while the market-based reform of interest rate formation regime and RMB internationalization will be pushed forward. In the meanwhile, macro economic adjustment and financial regulation will be further improved, exerting far-reaching impact on the bill market. On one hand, as the economic growth slows down, SMEs are faced with mounting pressure and exacerbating operating environment, pushing forward the credit risk and moral hazard of bill businesses. Moreover, with the continuous deepening of market-based interest rate formation regime, the banking sector will witness rising cost of obligations and narrower interest spread. RMB internationalization, market-based reform of foreign exchange rate regime as well as sharp fluctuation of the securities market aggravated the frequency and range of financial market volatility, giving rise to greater market risks and liquidity risks of financial institutions, particularly some small-and-medium-sized financial institutions that operate based on maturity mismatch of assets and obligations. On the other hand, bills, as an prime asset with acceptors' guarantee, are widely popular on the market. More and more investment and funding activities are conducted by means of bills. In particular, Internet finance with bills as its underlying assets of trading enjoys rapid growth. Therefore, the bill market participants have be enlarged to incorporate various financial institutions and enterprises, leading to the cross transmission of bill business risks among different markets and different institutions. The traditional bill businesses of commercial banks will be posed with great challenges.

Box 1 Interbank Money Market Launched New Trading Mechanism X-Repo

In August 2015, the interbank money market launched the X-Repo system and anonymous click business of pledged repo. The anonymous click business of pledged repo refers to a transaction mode in which the trading counterparties are matched by the system according to their credit lines and based on the price quotations of repo and reverse repo submitted by market *participants. Buyers of repo will submit the collateralized bonds in line with the rules after the deal is made. In comparison with the traditional inquiry transactions, the anonymous click business of pledged repo changes the original transaction mode based on one-to-one negotiations between institutions. The new trading mechanism greatly boosts the efficiency of repo transactions between institutions, enhances market transparency and optimizes the formation regime of repo rate, which marks a great stride forward of the repo market in the market-based reform of interest rate formation regime.*

1. Background

The interbank money market, which was established in 1997, is a funding venue for financial institutions. After 18 years of development, the market has evolved into the most importance platform for financial institutions to manage liquidity with the average daily turnover of pledged repo exceeding 2 trillion yuan and the number of market participants climbing up to approximately 10000. The market also gave birth to the benchmark interest rate, an important index on the money market.

The growing demand for higher trading efficiency of repo transactions, increasing market participants and brisker market activities made the problem of monotonous market trading mechanism more prominent. Prior to the adoption of the new trading mechanism, the repo transactions on the interbank market were based on two-way inquiries, i.e. the trading counterparties need to negotiate relevant trading information, including the trading volume, interest rate, the type of bonds as collaterals as well as conversion rate. However, with the expanding market breadth and width, more and more problems of the above-mentioned trading mechanism were exposed. First, the one-to-one inquiry restricted the number of potential trading partners. The Efficiency of market participants seeking a trading counterparty remained low. Second, the counterparties in every single transaction had to take time to negotiate the conversion rate of collateralized bonds, incurring higher management costs for buyers of repo transactions. Third, due to the lack of transparency of pricing mechanism, a single factor of an individual institution might influence the price movement of the day.

Against this backdrop, the Nationwide Interbank Funding Center (the Funding Center) introduced innovative measures into the trading machanism of pledged repo transactions, giving rise to the anonymous click business. Under this new trading *mechanism, buyers of both repo and reverse repo transactions could submit a limit order involving the price and trading volume. The system, according to the priorities of price and time, will automatically match the corresponding trading counterparties based on the credit constraints of the two parties. Once the deal is made, buyers of the repo transaction will submit the pledged bonds according to the conversion rate published by the Funding Center so a complete trading contract comes into being.*

2. Business characteristics

In comparison with the traditional inquiry mechanism, the anonymous click business of pledged repo is featured by the following characteristics:

First, the trading efficiency is boosted and the scope for trading counterparties is expanded. After the participating institutions submit the *orders for repo or reverse repo transactions, the system will automatically match the orders. Therefore, participating institutions need not to look for trading counterparties one-by-one nor do they need to negotiate the trading elements by themselves, which will greatly cut the transaction costs. Moreover, based on bilateral credit constraints, the system will also help expand the scope for trading counterparties in line with the internal risk control of participating institutions so as to raise the market liquidity on the whole.*

Second, the electronicalized trading process enhances market transparency. In terms of the anonymous click business, the whole trading process from sending order, matching deals, submitting pledged bonds to credit management is conducted through the centralized electronic system. Institutions' trading will and the transactions can be spotted real-time on the system. Market demands can be reflected through the system promptly and accurately and the whole trading process becomes more transparent.

Third, the price formation regime is more market-based and the role of the repo rate as the market benchmark is reinforced. Price formation regime based on the priorities of price and time makes the formation of repo rate more market-based and avoids the impact on the market price that may be exerted by an individual institution. Therefore, the role of short-term repo rate as the market benchmark is further enhanced.

Forth, a unified conversion rate of pledged bonds is adopted and the management efficiency of collaterals is boosted. Bonds with high credit ratings are acceptable collaterals in the anonymous click business and the standard conversion rate of a specific bond is released by the Funding Center on a daily basis. It has been the first time for the interbank market to adopt a unified conversion rate of pledged bonds. Compared with the inquiry transactions in which the trading elements need to be negotiated one by one, the management efficiency of collaterals is greatly enhanced.

3. Operation of the System

On August 3, 2015, the anonymous click business of pledged repo, or the X-Repo system, was officially unveiled. As of the year-end, a total of 437 institutions got access to the X-Repo system, including policy banks, large-scaled commercial banks, joint-stock banks, urban commercial banks, rural commercial banks, securities companies, insurance companies and fund companies, etc. The participating institutions were increasingly actively involved in quotation and trading.

Ever since the operation of the X-Repo system kicked off, the market trading remained brisk. The average daily trading volume amounted to 130 with the peak number reaching 397. The average daily trading value posted 150 billion yuan with the highest daily trading value hitting 561.2 billion yuan, accounting for 7% of the market's average. In terms of the maturity of the transactions, overnight transaction took up over 94% of the market total.

In terms of the participating institutions, borrowing institutions were relatively dispersed, consisting of joint-stock banks, state-owned large-scaled banks, urban commercial banks as well as rural credit unions, while policy banks and large-scaled commercial banks were the main lenders. As for the buyers of repo, the anonymous click business provided a stable funding channel

Figure 2.18 Trading Volume and Value of the Anonymous Click Business of Pledged Repo

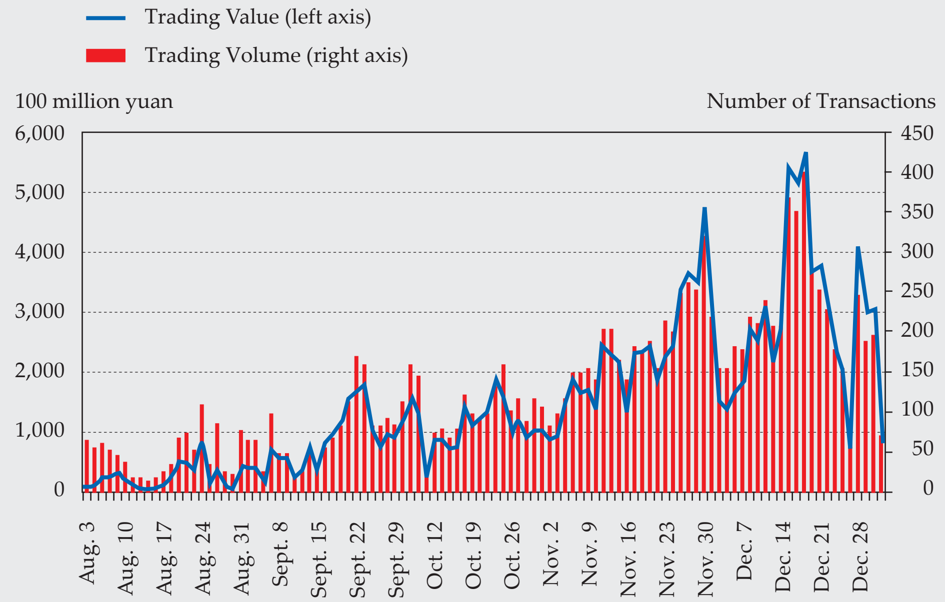
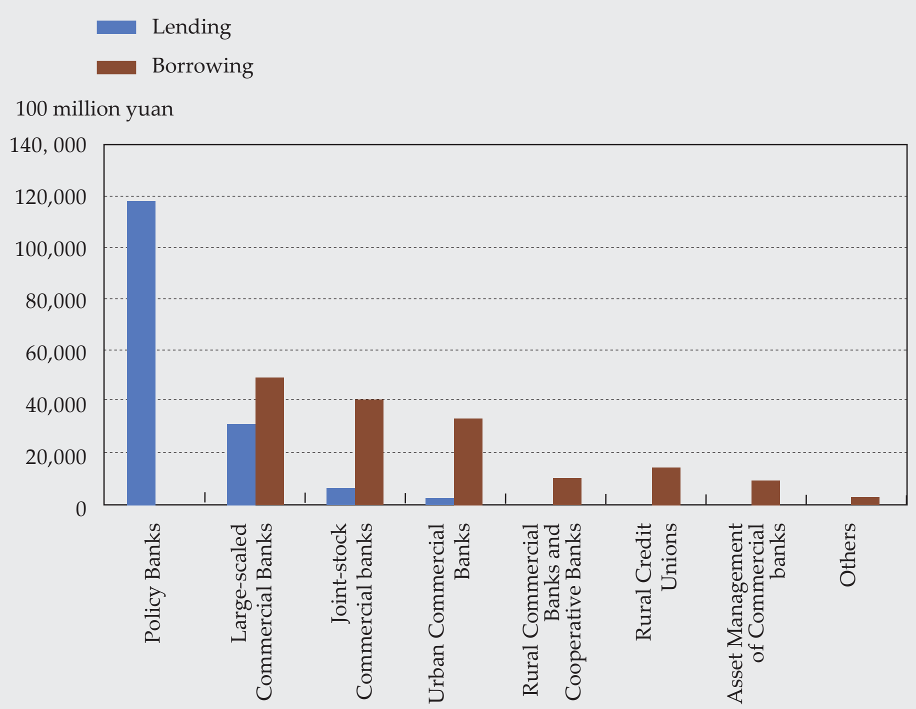


Figure 2.19 Type of Funding Institutions



and boosts efficiency in position management. As far as the buyers of reverse repo concerned, the business eliminated the process of pledged bond verification and made more convenient lending of funds. In terms of the timing of the transactions, tradings were brisker in the morning session. Transactions in the first trading hour (9:00-10:00) accounted for 40%-50% of the daily trading volume, playing a positive role in leading the movement of market interest rate in the day to some extent. As for the interest rate, the weighted average interest rate of anonymous click business was 7 bps lower as compared with that of inquiry transactions. Apart from higher credit ratings of institutions and the high-quality pledged bonds, the lower interest rate also reflected that the reform of the trading mechanism played a positive role in promoting the market-based formation of interest rates.

Box 2 Interbank Certificates of Deposit and Analysis of the CD Market

1. Certificates of Deposit Market

1.1 Introduction

On June 2 2015, the PBC promulgated the Interim Rules on Certificates of Deposit Management (the Rules) and the Administrative Bylaws on Certificates of Deposit Management, marking the restart of issuance of Certificate of Deposit(CD) after its 18-years suspension. CDs, which existed from as early as 1980s, refers to RMB-denominated book-entry certificates of deposit issued by deposit-taking financial institutions to non-financial institutional investors. CDs are deposit-like financial products of banks, but compares with common deposits, CDs boast higher yields and higher liquidity, making it possible to be transferred and pledged.

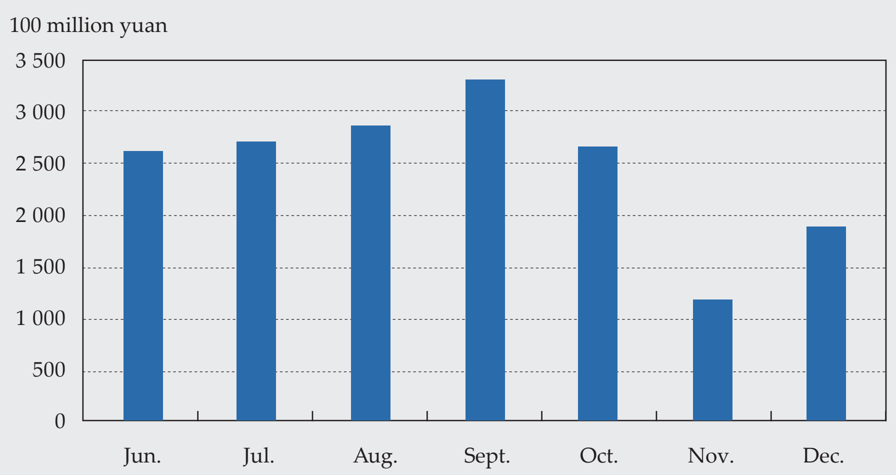
In terms of investors, apart from participants of the interbank funding market, securities and funds management companies, funds and insurance institutions, individual investors and non-financial institutions are also made investors of the CD market. The minimum investment quota for individuals and institutions stands at 300 thousand yuan and 10 million yuan respectively. Since the ceiling of individual deposit is set at 500 thousand yuan in Deposit Insurance Scheme, the rights of individual investors on the CD market are securely protected. As for the issuers, the scope for qualified issuers on the CD market has been expanded twice since the release of the Rules. The Nationwide Interbank Funding Center promulgated a document on July 30, stipulating that qualified issuers on the CD market could be expanded from the original 9 core members of the self-discipline mechanism of market interest rate pricing to incorporate 102 member of the mechanism, including nationwide financial institutions and regional incorporated financial institutions and foreign-funded banks that had experience in issuing CDs. On December 4, qualified issuers were further increased from 102 to 243, covering regional incorporated financial institutions and foreign-funded banks that had issued CDs prior to end-November.

With regard to the financial market as a whole, the restart of the issuance of CDs provided a reference for pricing on the deposit market and laid an institutional foundation for further promoting the reform of the market-based interest rate formation *regime. As for banks, the restart of CD issuance transformed commercial banks' traditional operation mode of passively absorbing deposits, enriched the sources of funds and enabled banks to actively adjust the structure of obligations in tackle with the impact from Internet finance and other non-banking financial institutions. Besides, it also provided an alternative source to supplement the liquidity of commercial banks, enhanced the stability of liabilities and the accuracy of liabilities management. In terms of enterprises and individuals, the restart of CD issuance enriched asset allocation instruments and wealth management products with its higher security, higher liquidity and greater convenience, playing a positive role in cutting down social financing costs.*

1.2 Performance of the CD market

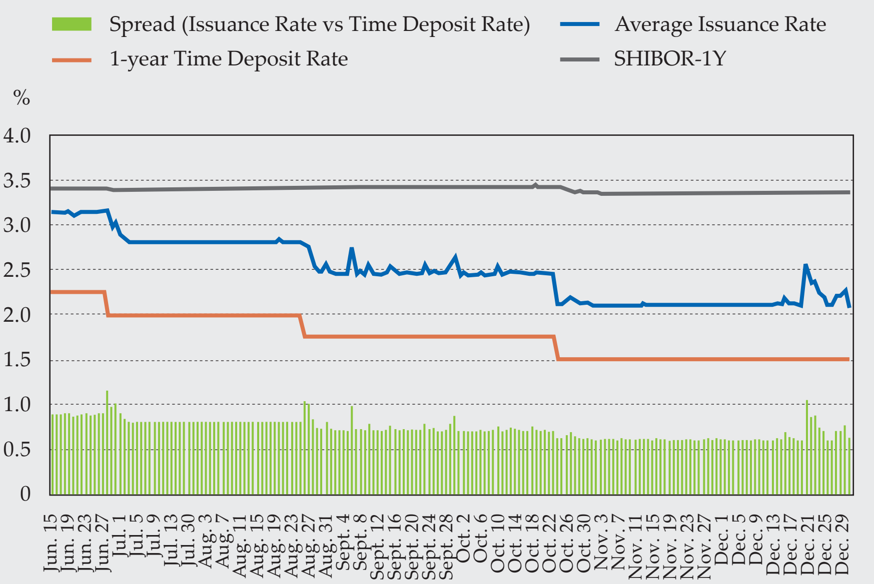
CDs made their debut on June 15, 2015. As of December 31, 2015, a total of 71 institutions had issued 3,187 CDs. The actual issuance value stood at 1,731.827 billion yuan, accounting for 27.57% of the planned issuance value, which amounted to 6280.96 billion yuan. CDs were issued both to individuals and to institutions and enterprises. To be specific, 1,565 CDs were issued to individuals and 1,622 CDs to institutions and enterprises. The planned issuance value of CDs to individuals and to institutions and enterprises posted 1,517.008 billion yuan and 4,763.952 billion yuan respectively, while the actual issuance value stood at 406.745 billion yuan and 1,325.082 billion yuan. In terms of the monthly movement of issuance value of CDs, the peak season of CD issuance came within five

Figure 2.20 Monthly Issuance Value of CDs in 2015



Source: Shanghai Clearing House.

Figure 2.21 Movement of Issuance Rate, Benchmark Rate and Spread of One-year CDs in 2015



Source: Shanghai Clearing House.

months after the initial issuance, with an average monthly issuance value over 250 billion yuan, and the CD issuance value slided at the year-end.

In 2015, deposit-taking financial institutions issued all the CDs on the market. Specifically, state-owned commercial banks and joint-stock commercial banks accounted for 80% and 18.49% of the total issuance value respectively. The maturity of CDs covered 1 month, 3 months, 6 months, 9 months, 1 year, 18 months, 2 years, 3 years and 5 years and concentrated on 1 year and less than 1 year. As for CDs with maturities within one year, one-year CDs took up the largest market share of 33.44% while 1-month, 3-month and 6-month products accounted for over 15% respectively of the market total.

As for the issuance interest rate, take the one-year CD as an example, the issuance rate of CD was within the range between the interest rate of time deposit with the corresponding maturity and the interbank funding rate and coincided with the movement of interest rate of one-year time deposit. The spread between the issuance rate and the interest rate of time deposit was narrowed down across the year and maintained at 0.75% at the year-end. As far as the issuing banks concerned, actively making obligations by means of issuing CDs did not add up to the costs substantially as compared with absorbing deposits.

Moreover, according to the yield curve of CD issued in 2015, spread of CD products with various maturities remained substantial except that of 1-month and 3-month CD products.

2. Interbank CD market

2.1 Introduction

Interbank certificates of deposit, officially launched on December 7, 2013, refer to book-entry time deposit certificates issued by deposit-taking financial institutions on the interbank market. The issuing rate of NCD, a money market instrument, is market-based. In comparison with CDs, publicly issued interbank CDs are tradable and can serve as the underlying assets of repo transactions. Investors and market participants of interbank CDs are comprised of members of the interbank funding market, funds companies and fund products. Qualified issuers of interbank CDs have been expanded from the core members and members of the self-discipline mechanism of market-based interest rate formation regime on December 4 to 643, incorporating all the observers of the mechanism.

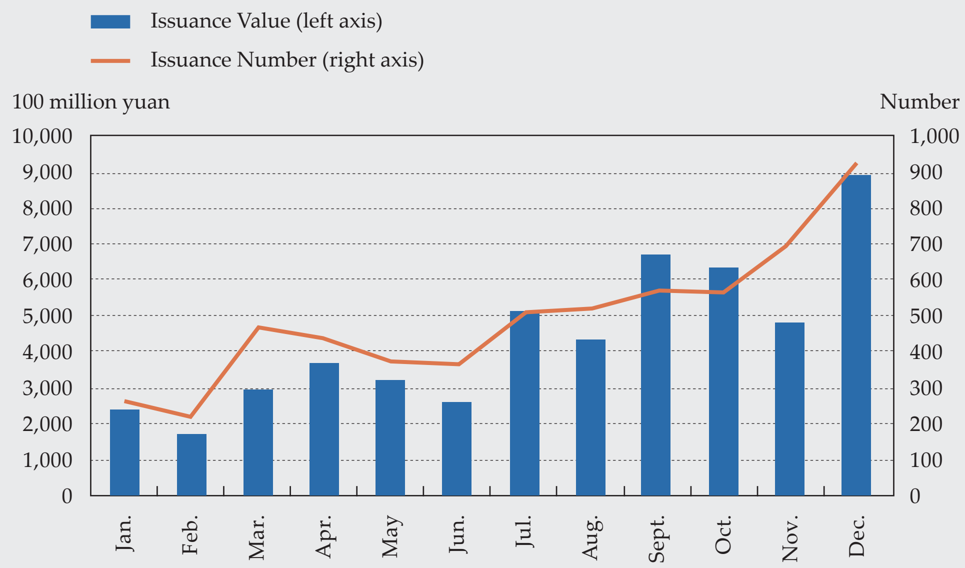
In a bid to support the financial innovation and opening-up of Shanghai Pilot Free Trade Zone (FTZ), based on earlier investigation and planning made by the PBC Shanghai Head Office and Shanghai Clearing House, the PBC promulgated the Operation Guidance in September 2015, marking the official launching of interbank CDs in Shanghai FTZ. On October 12, eight pilot banks, i.e. Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, Construction Bank of China, Merchants Bank, Everbright Bank, Pudong Development Bank and Huarui Bank, successfully issued interbank CDs in Shanghai FTZ, all of which were subscribed by 15 institutions, including 6 overseas institutions. The cumulative issuance value of the interbank CDs stood at 2.9 billion yuan. The interbank CDs were publicly issued with a maturity of 3 months. The issuance rates were based on SHIBOR of the corresponding periods and 5 to 10 bps lower than those of interbank CDs on the domestic market.

The launch of cross-border interbank CDs in Shanghai FTZ has far-reaching impact in terms of both market value and financial reform. First, the issuance of interbank CDs in Shanghai FTZ provides deposit-taking financial institutions with an active liquidity management tool, broadens their financing channel and improves the money market functions of the free trade account system. Second, it will facilitate overseas financial institutions' participation in financial activities within the zone, promote the two-way flow of funds between the overseas market and the FTZ and boost financial market activities in Shanghai FTZ so as to lay a solid foundation for the launch and trading of other interest rate and foreign exchange rate products in the zone and accumulate experience for the innovation and development of the interbank businesses in the zone, including the bond transactions, interbank funding businesses and transactions of derivatives. Last, it will also contribute to the improvement of the interest rate pricing mechanism of the free trade account system, boost the concentration of global RMB funds in Shanghai, push forward the market-based reform of the financial sector in Shanghai FTZ and enhance the connectivity of RMB domestic and overseas markets and the internationalization of the RMB businesses.

2.2 Performance of the interbank CD market

As of December 31, 2015, a total of 5,947 interbank CDs had been issued with a cumulative issuance value of 5,302.75 billion yuan, 490.79% more than that of the previous year. The number of institutions taking part in the issuance reached 289, 200 more than that of the year earlier. In

Figure 2.22 Monthly Issuance of Interbank CDs in 2015



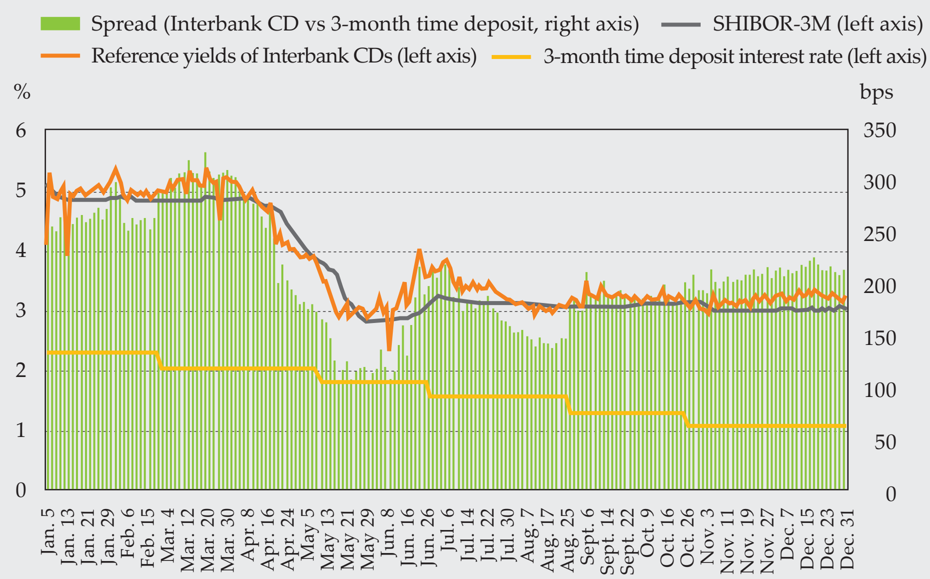
Source: Shanghai Clearing House.

terms of the movement of issuance value across the year, the monthly issuance value picked up an upward trend, with the cumulative issuance value in the second half of the year 118.09% higher than that in the first half of the year.

Different from the maturities of the interbank CDs issued in 2014 that were highly concentrated in 3 months and 6 months, maturities of interbank CDs issued in 2015 were evenly distributed within one year, i.e. 1 month, 3 months, 6 months and 1 year. As for the credit ratings of issuers, issuers of interbank CDs in 2015 were highly ranked in terms of credit ratings, with over 85% issuers ranked AA+ and plus and 71.11% ranked AAA. According to the issuance data in 2015, most institutional issuers witnessed a year-on-year growth of over 100%. Joint-stock commercial banks and urban commercial banks were the largest issuers of interbank CDs, representing a market share of 55.41% and 33.59% respectively. The cumulative issuance value of rural commercial banks and rural cooperative banks stood at 439.35 billion yuan, accounting for 8.29% of the market total. State-owned commercial banks were less active on the interbank CD market with an issuance value of 59 billion yuan, up only 1.47% over the previous year. Besides, foreign-funded banks took up a market share of approximately 1%. Domestic institutions within the FTZ also participated in the issuance of the interbank CDs, pushing forth the market-based pricing regime of interbank CDs.

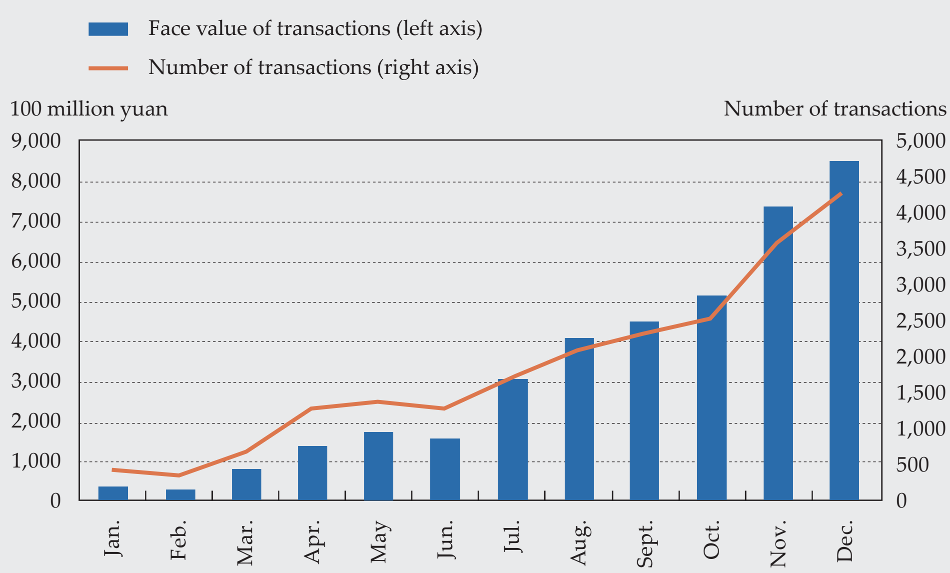
As of end-2015, 744 institutions and non-incorporated institutions took part in the initial subscription of interbank CDs, a substantial

Figure 2.23 Reference Yields, Benchmark Interest Rates and Spreads Movement of 3-month Interbank CDs in 2015



Source: Shanghai Clearing House.

Figure 2.24 Monthly Transactions of Interbank CDs in 2015



Source: Shanghai Clearing House.

increase over 165 in 2014. Subscribers were also increasingly diversified. The subscription value of deposit-taking financial institutions and non-incorporated products amounted to 3,140.29 billion yuan and 1,555.23 billion yuan, accounting for approximately 60% and 30% of the total respectively.

Among all the interbank CDs issued in 2015, 5,892 were discounted interbank CDs while 55 were interbank CDs with interest payment. To be specific, 3 were with floating interest rate and 52 were with fixed interest rate.

In terms of the price, take the 3-month interbank CD as an example, the reference yields of the 3-month interbank CD fluctuate within a small band of the benchmark yield curve of SHIBOR_3M. Spread between the interest rate of time deposit and the reference yield of interbank CD lingered around 210 bps at the year-end, 50 bps lower than that at the beginning of the year.

As of end-2015, a total of 22,333 transactions had taken place in the interbank CD market, involving 2,540 interbank CDs. The cumulative face value of all the interbank CDs reached 3,874.624 billion yuan, 16.33 times that in 2014. Specifically, the face value of 20,102 spot transactions hit 3,569.335 billion yuan, accounting for 92.12% of the total, while 2,231 repo transactions boasted a cumulative face value of 305.289 billion yuan. The ratio of trading value to issuance value stood at 73.06% as compared with 26.43% in 2014, indicating that the interbank CD market had been more liquid than before.

As far as the monthly movement of market transactions, monthly trading value of interbank CDs climbed up across the year. In the second half of the year, monthly trading volume spiraled up, exceeding 700 billion yuan and 800 billion yuan consecutively.

In 2015, deposit-taking financial institutions took up 78.01% of the total trading volume of the market, while non-incorporated products and securities companies contributed a market share of 18%.

As of end-December 2015, the outstanding trust value of interbank CDs hit 3,027.44 billion yuan, involving 781 investors and 3,197 products. Different from disproportionately high market share of deposit-taking institutions in terms of trading volume, the holdings of interbank CDs were evenly distributed among deposit-taking financial institutions, non-incorporated products and non-banking financial institutions.

In terms of price and liquidity, price movement on the primary market and the secondary market converged with the spread declining. Due to their own characteristics, interbank CDs witnessed a lower turnover ratio as compared with commercial papers and other corporate debenture bonds, but its liquidity was higher than the average level of previous year.

Part III Bond Market

In 2015, China's bond market maintained sound growth momemtum amid regulated and innovation-driven development. Bond market continued to grow both in incremental and stock terms. The issuance of local government bonds grew most rapidly, and that of corporate debenture bonds also rose sharply. Bond price continued the upward trend, while the interest rate level on the bond market continued to drop. New types of bonds kept emerging, new rules and regulations were rolled out one after another, and the openness of the market increased.

1.Bond market performance

1.1 Bond issuance market

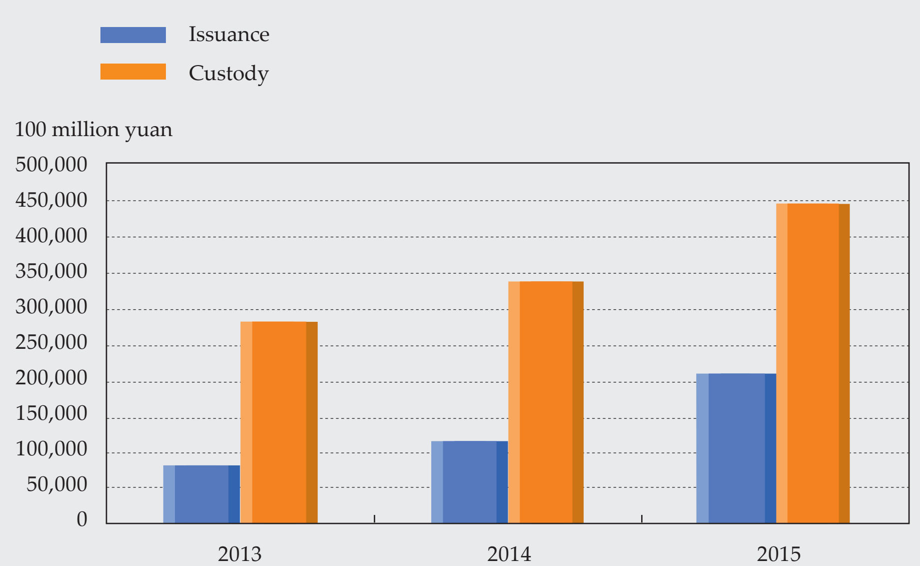
1.1.1 Size of annual bond issuance expanded rapidly

In 2015, national total issuance on bond market posted 22.3 trillion yuan, a year-on-year increase of 10.24 trillion yuan or 87.5%. Among it, 13,145 new bonds were registered and issued on national interbank bond marekt with a total value of 21 trillion yuan, adding 81.3% year-on-year and accounting for 94.17% of the total. 1,144 corporate bonds valued at 1.3 trillion yuan were issued on the exchange, representing 5.83% of the total.

1.1.2 Total bond custody continued to grow steadily

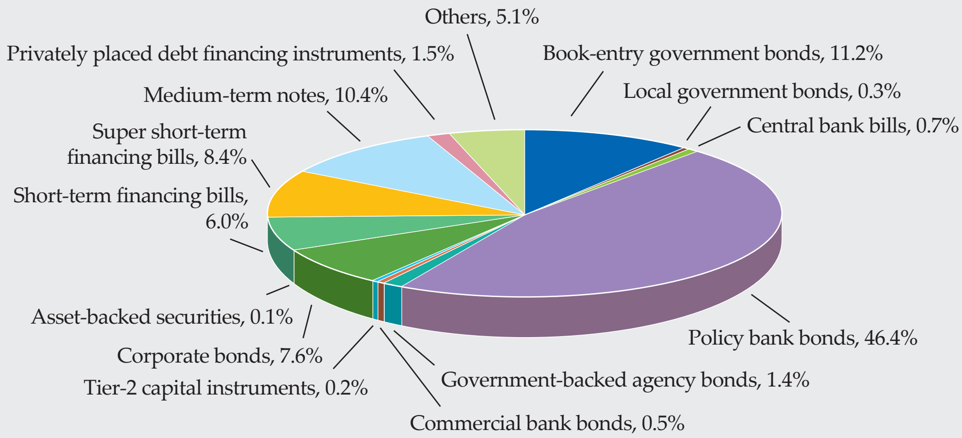
As of end-2015, national total bond custody reached 47.9 trillion yuan, a year-on-year

Figure 3.1 Changes in the Size of Bond Issuance and Custody on Interbank Bond Market, 2013—2015



Sources: China Central Depository & Clearing Co., Ltd. (CCDC) and Shanghai Clearing House (SCH).

Figure 3.2 Structure of Spot Bond Trade on Interbank Bond Market in 2015



Sources: CCDC and SCH.

gain of 10.95 trillion yuan or 34.6%. Among it, bond custody on national interbank bond market jumped 33.2% from a year earlier to 43.9 trillion yuan, accounting for 90.45% of the national total, while corporate bond custody on exchange market surged 122.72% over last year to 4 trillion yuan, comprising 8.18% of the national total. Bond custody over the counter went up 11.87% compared with the prior year to 664.082 billion yuan, taking up 1.37% of the national total.

1.2 Bond transaction market

1.2.1 Size of spot bond trade grew substantially

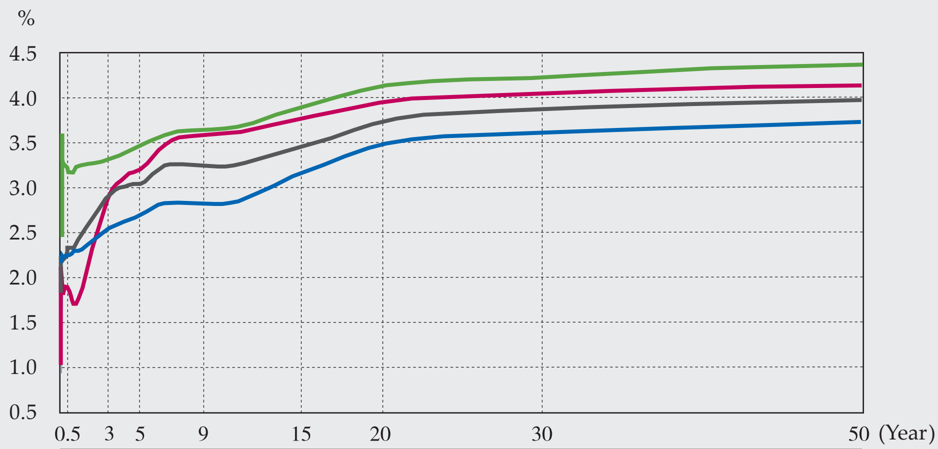
In 2015, settlement of spot bond trade on bond market totaled 90.17 trillion yuan, soaring 109% year-on-year. By breakdown, settlement of spot bond trade on national interbank bond market surged 114.9% over last year to 86.8 trillion yuan, that on exchange market jumped 22% from a year earlier to 3.4 trillion yuan, and that over the counter added 52.42% compared with last year, posting 10.928 billion yuan.

Structure of spot bond trade on the interbank bond market showed that the China Development Bank (CDB) financial bonds and policy bank bonds, book-entry government bonds, medium-term notes, super short-term financing bills and corporate bonds were the five top performers in terms of trading volume, respectively accounting for 46.44%, 11.24%, 10.39%, 8.41% and 7.59% of the total trading volume on interbank bond market and representing 84.08% of the total when combined.

1.2.2 Bond price index continued to rise

The People's Bank of China (PBC) had continued to adopt a prudent monetary policy since 2015 by cutting reserve requirement ratio (RRR) four times and benchmark lending rates five times. It guided the downward trend of the market rate while keeping overall liquidity at a proper and adequate level. The ChinaBond Index rose persistently, while bond yield curve

Figure 3.3 Yield Curves of Interbank Fixed-Rate Government Bonds in 2015



Color	Date	Remaining maturity (year)	Yield (%)
■	Sept. 30	0.0	1.4948
■	Mar. 31	0.0	2.4677
■	Jun. 30	0.0	1.0503
■	Dec. 31	0.0	1.777

Source: CCDC.

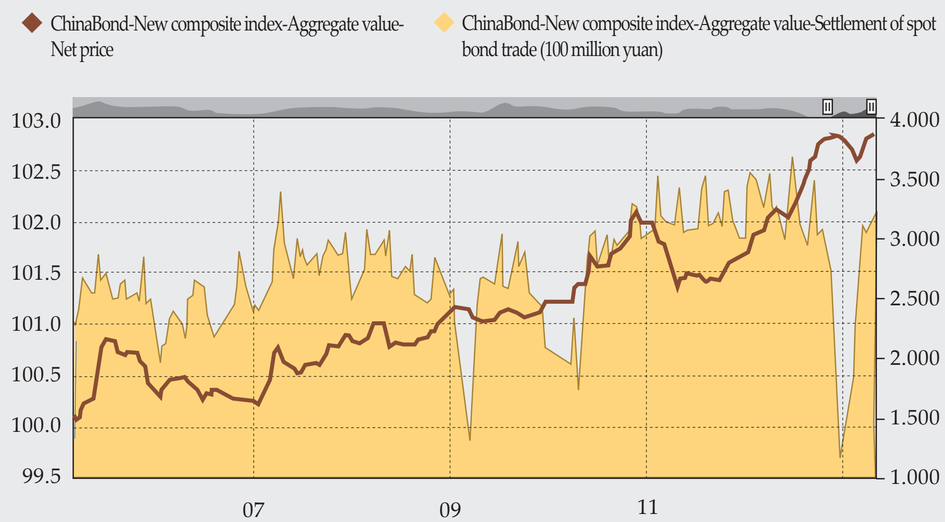
fluctuated downwards. As of end-2015, the ChinaBond New Composite Index (net price) was 102.8321 points, rising 3.37% compared with 99.4821 points at end-December 2014. The ChinaBond New Composite Index (Wealth) was 169.9023 points, up 8.18% compared with 157.0586 points at end-December 2014.

On secondary market, the average yield of ChinaBond fixed-rate government bonds, policy financial bonds, corporate bonds (AAA) and short and medium-term notes (AAA) dropped 84, 129, 159 and 181 bps respectively from the end of last year. Bond's credit spread narrowed, as the yield of five-year ChinaBond short and medium-term notes with AAA, AA+ and AA ratings lost 154 bps, 159 bps and 153 bps resepctively. Lower interest rate on bond market would help reduce enterprises' financing cost through bond market.

1.2.3 Investor structure on the interbank bond market remained stable

Compared with end-2014, bond investor structure changed moderately at end-2015, basically remaining stable. As of end-2015, bonds held by commercial banks posted 22.12 trillion yuan, accounting for 39.29% of the total outstanding bonds, sinking only 0.25% compared with end-2014, making it the largest investor on the interbank bond market. Among all commercial banks, those with national presence were the bulk of bond investors. At end-2015, commercial banks with national presence held 17.38 trillion yuan bonds, representing as high as 30.88% of the total. Among other major institutional investors, the share of fund companies rose from 7.13% at end-2014 to 8.54%, that of insurance institutions slid from 4.98% to 4%, that of urban commercial banks advanced from 4.37% to 5.13%, and that

Figure 3.4 Movements of the ChinaBond Composite Index (Net Price) in 2015



2015-12-31 Inquiry

Indicators	Aggregate	Under 1 year	1-3 years	3-5 years	5-7 years	7-10 years	Above 10 years
Wealth	168.3888	152.0159	163.8104	174.9593	180.6218	174.2828	184.9349
Gross price	117.1239	141.8418	106.7828	111.2596	115.0111	108.8323	107.6549
Net price	102.0957	97.9533	99.2303	102.5237	107.5406	103.2898	103.3626

Source: CCDC.

of rural commercial banks went up from 2.3% to 2.6%.

1.2.4 Bond transactions over the counter increased sharply

Since 2014 when products available for trading over the counter increased, there were four types of bonds traded over the counter for the time being, inlcuding book-entry government bonds, local government bonds, policy financial bonds and corporate bonds. In 2015, the cumulative trading of the above-mentioned four types of bonds over the counter posted 10.928 billion yuan, surging 52.42% year-on-year. Sales volume over the savings bonds counter stood at 185.918 billion yuan, shedding 1.32% from the same period of last year.

2. Main features of bond market performance

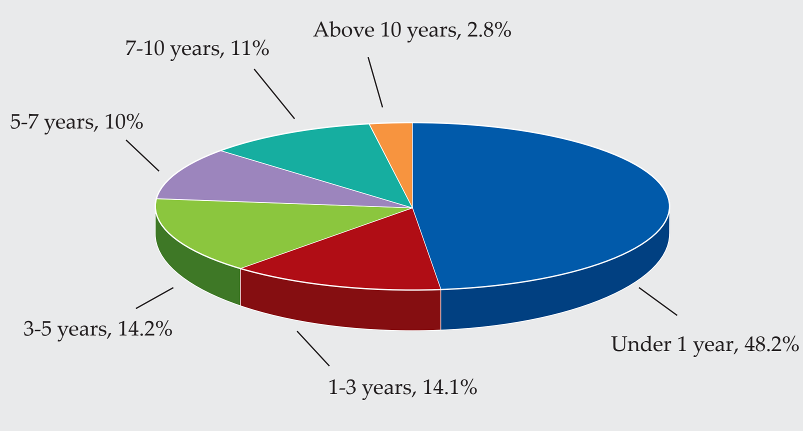
2.1 Size of local government bond issues rose most rapidly

Structure of new bond issues on the interbank market showed that the issuance of corporate bonds in 2015 tumbled 50.72% from last year to 343.102 billion yuan. The CDB, the Export-Import Bank of China (EximBank) and the Agricultural Development Bank of China (ADBC) issued 2.6 trillion yuan bonds, a year-on-year increase of 12.23%. The issuance of tier-2 capital instruments slid 24.38% year-on-year to 269.864 billion yuan. Among government bonds, the issuance of book-entry government bonds posted 1,801.62 billion yuan, a year-on-year gain of 365.29 billion yuan or 25.43%. Affected by the implementation of the swap policy on local government bonds, the issuance of local government bonds hit 3.8 trillion yuan, which was 9.59 times that in 2014, making it the top performer in 2015 in terms of growth of issuance size. The CDB financial bonds, policy bank bonds and government bonds retained their dominant role in bond issuance, as they accounted for about 38% of total issuance when combined.

2.2 Issuance of corporate debenture bonds grew substantially

In 2015, issuance of corporate debenture bonds[1] on national bond market hit 7 trillion yuan, rising sharply by 35.8% year-on-year. By breakdown, cumulative issuance of corporate bonds slid 50.72% from a year earlier to 343.1 billion yuan, while that of short-term and super short-term financing bills went up 50.72% year-on-year to 3,242.73 billion yuan. In particular, growth of super short-term financing bills was as high as 108.66%. The cumulative issuance of medium-term notes jumped 32.54% from a year earlier to 1,241.67 billion yuan, that of privately placed debt financing instruments dropped 14.16% from last year to 878.135 billion yuan, that of collective notes by regional high-quality small and medium-sized enterprises (SMEs) edged down 0.93% year-on-year to 426 million yuan, and that of asset-backed notes by non-financial enterprises surged 60.76% from the previous year to 3.5 billion yuan. In addition, for exchange bond market, the China Securities Regulatory Commission (CSRC) published in January 2015 the *Administrative Measures for the Issuance and Trading of Corporate Bonds,* which expanded the issuers of corporate bonds from listed companies to all corporate enterprises. As a result, the full-year issuance of corporate

Figure 3.5 Term Structure of Bonds Issued on the Interbank Bond Market in 2015



Note: The term includes the upper limit and excludes the lower limit.
Sources: CCDC and SCH.

1 Only includes corporate debenture bonds issued by non-financial enterprises and excludes government-backed agency bonds.

bonds grew sharply, surging 272.62% compared with last year to 1,298.15 billion yuan, which made it the fastest-growing debenture bond in terms of issuance size.

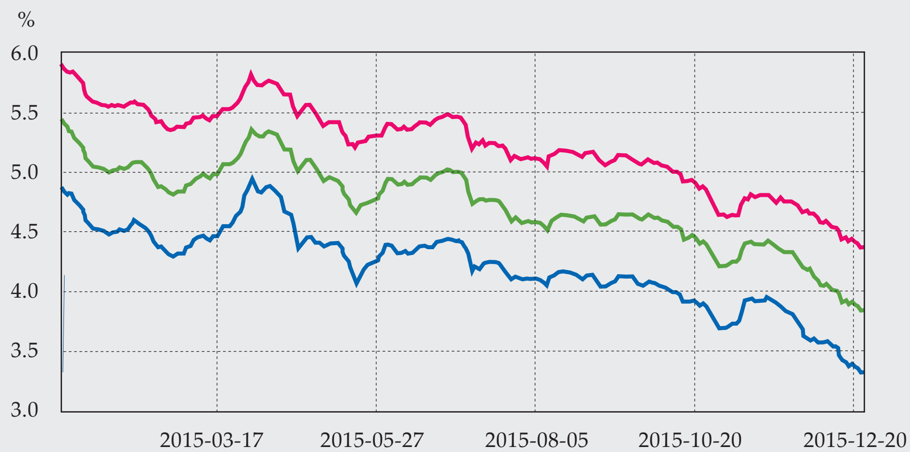
2.3 The share of short-term bonds in total issuance increased considerably

Term structure of new bond issues on the interbank market showed that short-term products with maturities of 0-3 years accounted for 62.14% of the total issuance, up 20.39 percentage points over last year, medium and long-term products with maturities of 3-10 years comprised 35.11% of the total issuance, losing 3.28 percentage points compared with a year earlier, and long-term products with maturities of more than 10 years took up 2.76% of the total issuance, sinking 0.1 percentage points from the previous year.

2.4 Turnover rate of spot bond on the interbank bond market rose by a large margin

In 2015, the cumulative turnover rate of spot bond reached 195.51%, up 118.42 percentage points year-on-year. Among it, turnover rate of collective notes hit the highest of 11.24 times, but its impact on the interbank bond market was limited, thanks to its small size relative to other products. Besides, policy bank bonds and corporate bonds, two major products on the interbank bond market, were quite liquid, with the annual turnover rate being 355.45% and 163.5% respectively, followed by medium-term notes (197.67%), central bank bills (145.09%),

Figure 3.6 Yield Curves of Interbank Short and Medium-term Notes with Different Credit Ratings in 2015



Colour	Name of the curve	Date	Yield
■ (blue)	Yield curve of interbank short and medium-term notes (AAA) (yield to maturity)	2015-12-31	3.3137
■ (green)	Yield curve of interbank short and medium-term notes (AA+) (yield to maturity)	2015-12-31	3.8237
■ (pink)	Yield curve of interbank short and medium-term notes (AA) (yield to maturity)	2015-12-31	4.3637

Sources: Wind and CCDC.

Table 3.1 Comparison of the Turnover Rate of Major Bonds on the Interbank Market in 2015 and 2014

Unit: %

Types of bonds	2015	2014	Change in turnover rate (y-o-y)
Book-entry government bonds	99.72	66.98	32.74
Local government bonds	5.59	9.15	-3.56
Central bank bills	145.09	29.53	115.56
Policy bank bonds	355.45	163.50	191.95
Government-backed agency bonds	70.21	53.28	16.93
Commercial bank bonds	30.60	8.47	22.13
Capital instruments	21.70	5.71	15.99
Non-bank financial institution bonds	86.07	127.26	-41.19
Corporate bonds	202.01	150.18	51.83
Short-term financing bills	480.86	290.16	190.7
Super short-term financing bills	480.65	277.93	202.72
Asset-backed securities	7.44	0.78	6.66
Medium-term notes	197.67	171.88	25.80
Collective notes	1,124.55	138.31	986.24
Interbank certificate of deposit	140.94	34.24	106.7
Average turnover rate of bonds on interbank market	195.51	77.09	118.42

Sources: CCDC and SCH.

non-bank financial institution bonds (86.07%), book-entry government bonds (99.72%), government-backed agency bonds (70.21%), commercial bank bonds (30.6%), capital instruments (21.7%), asset-backed securities (7.44%) and local government bonds (5.59%).

2.5 Yield volatility eased amid stabilization

In 2015, bond price volatility on the interbank bond market moderated amid stabilization, while market price volatility eased. The ChinaBond yield curve of key term bonds showed that the yield volatility of one-year CDB bond declined by a large margin, as the absolute value of two-day change in the yield averaged 2.43 bps, slashing 27.86% from the 3.27 bps in 2014. In 2015, the absolute value of two-day change in the yield of 10-year government bonds averaged 2.23 bps, a slight increase of 1.99% from 2014. In general , against the backdrop of an upward trend across the bond market in 2015, the volatility of policy bank bonds eased with the price remaining relatively stable, while that of government bonds and debenture bonds was mixed, but was stabilized. For the yield volatility of major interest rate bonds and debenture bonds in recent two years, see Table 3.2:

Table 3.2 Average Daily Changes of ChinaBond Yield Curves of Key Terms of Major Types of Bonds in Recent Two Years

Government bonds	2014 (bps)	2015 (bps)	Growth rate (%)
1-year	2.87	2.55	-11.01
3-year	2.34	1.95	-16.64
5-year	2.11	2.10	-0.56
7-year	2.18	2.28	4.70
10-year	2.19	2.23	1.99
CDB bonds	2014 (bps)	2015 (bps)	Growth rate (%)
1-year	3.37	2.43	-27.86
3-year	3.64	2.85	-21.74
5-year	3.56	2.91	-18.36
7-year	3.22	2.50	-22.51
10-year	3.27	2.54	-22.28
Bonds issued by EximBank and ADBC	2014 (bps)	2015 (bps)	Growth rate (%)
1-year	3.08	2.54	-17.51
3-year	3.15	2.83	-10.17
5-year	3.11	2.59	-16.75
7-year	2.87	2.29	-20.25
10-year	2.78	2.50	-10.14
Small and medium- term notes (AAA)	2014 (bps)	2015 (bps)	Growth rate (%)
1-year	2.80	3.18	13.50
3-year	2.45	2.45	0.09
5-year	2.57	2.55	-0.82
7-year	2.06	2.19	6.10
10-year	2.01	1.79	-10.79

Source: CCDC.

2.6 Bond market's credit risk was further released

In 2015, credit risk events on bond market became more frequent, and covered a slightly broader area, ranging from private placement to public offering, from private enterprises to state-owned enterprises (SOEs) and from defaults on interest rate to principal defaults. There were a total of nearly 20 credit risk events on bond market across the year. Most of them were in industries with excess capacity and cyclical sectors. Among them, some bonds were finally redeemed through guarantee provided by shareholders and government or restructuring. However, breaking the unconditional redemption on bond market remains the trend. The gradual breaking of unconditional redemption would make credit pricing more reasonable, guide more effective resource allocation, and promote economic reform and transformation. Meanwhile, market-based bond defaults would not only encourage market players to increase risk awareness and improve the capacity to prevent and respond to risks, but also increase market requirement for improving infrastructures and developing a risk management system. Only when individual risks are effectively diversified and diverted can systemic risks be curbed.

3. Bond market innovation

3.1 Bond product innovation

3.1.1 Green financial bonds were introduced

To implement the Overall Plan for Institutional Reform of Ecological Civilization announced by the State Council and the requirement of the Fifth Plenary Session of the 18th Central Committee of the Communist Party of China (CPC), the PBC issued the Notice No. 39 of 2015 on December 22, 2015 to introduce green financial bonds to interbank bond market. Green financial bonds are securities issued by incorporated financial institutions on interbank bond market in line with laws to raise funds specifically for financing green industrial projects with interest and principals paid as agreed. The issuance of green financial bonds is an innovation which provides a channel for financial institutions to raise funds on bond market to support such green industrial projects as environmental protection, energy saving, clean energy and green traffic. It is an important measure in developing green financial system, which would help increase effective supply of green credit, in particular medium and long-term green credit. It is a significant measure to develop a greener economy, advance ecological civilization in China and promote sustainable economic and social development.

3.1.2 Capital replenishment channels for insurance firms were expaned

On January 22, 2015, the PBC and the China Insurance Regulatory Commission (CIRC) jointly published the *Circular of the People's Bank of China and the China Insurance Regulatory Commission* (No. 3〔2015〕), allowing insurance firms to issue capital replenishment bonds on the interbank bond market. Capital replenishement bonds are issued by insurance firms to replenish capitals with maturities of more than five years (including five years). It is subordinate to policy responsibility and other common liabilities, but has a preferred status compared with equity capitals of insurance firms. The introduction of capital replenishement bonds issued by insurance firms on the interbank bond market would broaden capital replenishment channels for insurance firms, and improve their solvency and resilience. Besides, insurance firms have long been investors in the interbank bond market. The introduction of bonds issued by insurance firms would also expand issuers on the interbank bond market and diversify investment products on the market.

3.1.3 One foreign enterprise became the first to issue RMB bonds on the interbank bond market

To further deepen financial markets and advance market opening up as well as support the international use of renminbi and its inclusion in the special drawing rights(SDR), the National Association of Financial Market Institutional Investors (NAFMII) approved on October 20, 2015 the registraion application of China Merchants Group (Hong Kong) Co. Ltd. (hereinafter refered to as China Merchants Group (Hong Kong)) to issue 3 billion yuan short-term financing bills on the interbank bond market, consistent with relevant self-discipline rules. On November 3, 2015, China Merchants Group (Hong Kong) announced issuance results. The first batch of 500 million yuan one-year short-term financing bills was issued at 3.03%. As the first domestic case of RMB debts issued by a non-financial enterprise on the interbank bond market, it would help further diversify the tiers of products on the interbank bond market, encourage financial innovation, and further boost the opening up of China's bond market. It would also improve financial services for real economy and further promote economic restructuring as well as transformation and upgrading.

3.1.4 International commercial banks were allowed to issue RMB bonds on the interbank bond market for the first time

On September 22, 2015, the PBC published a notice on its website, annoucing the approval of the Hongkong and Shanghai Banking Corporation Limited (HSBC Hong Kong) and Bank of China Hong Kong Co. Ltd. (BOC Hong Kong) to respectively issue 1 billion yuan and 10 billion yuan RMB financial bonds on the interbank bond market. This was the first time that international commercial banks were given the green light to issue RMB bonds on the interbank bond market, which further expanded the scope of issuers on the interbank bond market and widened RMB financing channels for international commercial banks. It would help further open up China's bond market and promote the cross-border use of renminbi.

3.1.5 Foreign governments registered and issued RMB bonds on the interbank bond market for the first time

On November 27, 2015, the NAFMII approved the registration of RMB bond issuance by Canadian Province of British Columbia, completing the first RMB debt registration by a foreign local government. On December 8, the NAFMII accepted the registration of RMB bond issuance by the government of Republic of Korea (ROK), completing the registration of first RMB debt by foreign sovereign government. On December 15, 2015, 2015 ROK RMB Bonds were issued through interbank bond market centralized book building system at the Beijing Financial Assets Exchange. The first batch of 3 billion yuan 3-year bonds were issued at 3%. It was the first successful issue of RMB sovereign bonds by a foreign government on domestic market, which marked the further opening up of the interbank bond market.

Efforts were made to promote the issuance of RMB bonds on domestic market by eligible foreign institutions. The expansion of foreign issuers of RMB bonds on domestic market is an important measure to advance two-way opening up of financial sector, increase bond market product tiers, and diversify issuers. Prior to this measure, international development agencies, foreign non-financial enterprises and foreign commercial banks had already issued RMB bonds on the interbank bond market.

3.1.6 Efforts were made to innovate notes issued by non-financial enterprises

In 2015, innovation of notes issued by non-financial enterprises remained active on the interbank bond market.

The first 2 billion yuan asset-backed note (ABN) with future returns on billing and settlement plan (BSP) as the underlying assets was issued on the interbank market on March 27, 2015. The credit rating of the issuer was AA and the ABN was categorized into five products through structural design. BSP is a standard transport certificate of the International Air Transport Association (IATA). It is a single standard ticket sold by agents recognized by the IATA and accepted by all member airliners of the IATA. Ticket payments by passengers are first pooled by the IATA, and then the IATA would process settlements with airliners. This is a widely-used, safe, reliable, and easy to regulate practice with clear cash flows.

On November 9, 2015, the first note with project proceeds as the underlying assets was issued on the interbank market. The registered value was 2.6 billion yuan, while the first issue was 1.3 billion yuan, including two products. One product was issued with a term of 15+8 years and a coupe rate of 5.4%. At the end of the 15th year, the issuer has the right to redeem and adjust coupon rate, while the investor has the right to sell back the note. The other product was issued with a term of 23 years at the rate of 5.45%. This note is collateralized by the right to collect highway toll fees after the project is completed. Moreover, the issuer is obliged to fill the gap in interest and principal payments. Notes with project proceeds as the underlying assets have longer maturities and risks are separated. It plays a significant role in expanding project financing channels, advancing urbanization, and preventing as well as mitigating local government debt risks. As of end-2015, a total of 9 enterprises registered 10 project proceeds notes with the value totalling 13.8 billion yuan. Among it, five issuers have already issued 5.9 billion yuan notes, which has played an important role in supporting the financing of urbanization projects.

3.1.7 Efforts were made to explore the management mechanism of debt plus loan in debt financing instruments

On September 25, 2015, the first debt-plus-loan debt financing instrument was issued, namely, the 1.5 billion yuan short-term financing bills issued by the Pearl River Delta Intercity Railway. The issuer is a railway construction company. The construction and cost recovery cycle of railway projects is longer, and post-operation incomes as well as cash flows are stable. Given the issuer's finance features, the NAFMII and CDB, the lead underwriter, introduced the debt-plus-loan arrangement as a safeguard for repayments based on joint research. Efforts were made to apply coordinated management of bonds before maturity by drawing on loan management model. In the specific plan, the CDB is responsible for monitoring the issuer's finance, project progress and the designated account for funds raised, conducting on-site inspection, and developing a dynamic monitoring mechanism for debt repayments so as to analyze, assess as well as prevent and control debt repayment risks from multiple perspectives, consistent with the principle of single planning, single credit approval, aggregate control, dynamic monitoring and whole-process management.

The introduction of debt-plus-loan mechanism as a safeguard for enterprise debt repayments and the adoption of homogeneous management of debts and loans will, on the one hand, increase the efficiency and level of the use of funds, help enterprise adjust debt structure and the share of financing, properly control financing costs, and enhance the capacity for sustainable financing. On the other hand, it will expose credit risk in time through overall prevention and control of enterprise debt risks, which will protect investors' interests and boost their confidence. The introduction of this innovative mechanism is a positive attempt to enable the interbank market to support the financing of key projects and improve debt risk prevention and control.

3.2 Innovation of bond issuance mechanism

3.2.1 The Ministry of Finance started to issue treasury bills on a rolling basis

To implement the decision of the Third Plenary Session of the 18th Central Committee of the CPC to improve the government bond yield curve that reflects market supply and demand, and taking into account the need of government bond management and financial market development, the Ministry of Finance (MOF) issued the first batch of 15 billion yuan 6-month discount treasury bills on April 13, 2015, kicking off the issuance of 6-month treasury bills on a monthly basis. Then it issued the first batch of 10 billion yuan 3-month discount treasury bills on October 9, starting to issue 3-month discount treasuy bills on a weekly basis. The yield of 3-month and 6-month treasury bills was announced for the first time on November 27.

Treasury bills are an important component of government bonds, which play an important role in improving government bond management, strengthening macro adjustment and promoting financial market development. The regular issuance of treasury bills on a rolling basis would help further refine the term structure of government bonds, improve the yield curve of short-term government bonds, and strengthen the role of government bond yield as a pricing benchmark in financial market. Meanwhile, it would also promote the coordination between fiscal and monetary policies and push forward RMB internationalization. As of end-December, the MOF saw 12 issues of 3-month treasury bills totalling 120 billion yuan and 9 issues of 6-month treasury bills with a total value of 125 billion yuan respectively in 2015.

3.2.2 Small public offering and private placement bonds were issued

In January 2015, the CSRC published the *Administrative Measures for the Issuance and Trading of Corporate Bonds* (hereinafter referred to as the Administrative Measures), which expanded the issuer of corporate bonds from listed companies to all incorporated legal entities. Meanwhile, means of issuance was further diversified to include three options, namely, big public offering, small public offering and private placement.

The full name of non-public corporate bonds is corporate bonds that are not issued through public offering, namely, private placement bonds. It only targets qualified investors and the number of investors should not exceed 200. It should not be listed in the negative list provided by the Securities Association of China (SAC). In early June 2015, the first batch of 1.3 billion yuan private placement bonds was issued.

The full name of corporate bonds issued via small public offering is corporate bonds issued via public offering targeting qualified investors. With the credit rating lower than AAA, it is only available for qualified investors to subscribe and trade. Qualified investors mainly include all types of financial institutions and individuals with more than 3 million yuan in financial assets. The biggest difference between small and big public offerings is that the latter targets general investors and the credit rating threshold for bonds issued is AAA. In June 2015, the first batch of 700 million yuan corporate bonds was issued via small public offering, with the bid-to-cover ratio posting 4.84 times and the coupon rate being 4.48%, well below the benchmark lending rate of bank loans with the same maturities.

The emerging means of issuance and expansion of issuers contributed to the ballooning bond issuance on the exchange market. During the year, the issuance of corporate bonds stood at 914.032 billion yuan, suring 222.25% year-on-year, making it the fastest growing debenture bond in terms of issuance size.

3.2.3 The yield of China's treasury bills was included in the SDR interest rate basket

On December 1, 2015, the International Monetary Fund (IMF) held the Executive Board's meeting to review the valuation of the SDR currency basket. The meeting decided to include the Chinese renminbi in the SDR basket along with the U.S. dollar, the euro, the Japanese yen and the British pound, effective on October 1 2016. Besides, according to the IMF Policy Paper: Review of the Method of Valuation of the SDR, the IMF staff assessed a series of RMB-denominated benchmark interest rates, and decided based on prolonged assessments and comparison that the yield of 3-month treasury bills is the best rate to be included in the SDR interest rate basket. [1]

In 2015, the PBC adopted various measures to deepen the opening up of domestic bond market, support the further development of off-shore RMB bond market and continuously advance the RMB internationalization, all of which had laid an important foundation for the inclusion of the renminbi in the SDR basket. Besides, the MOF started to issue 3-month treasury bills on a regular basis from October 2015, and such major features as display of the yield of treasury bills and inquiry about historical data are available on the MOF's website. All this had also paved the way for improving the complete government bond yield curve, which includes the yield curve of 3-month treasury bills.

3.3 Innovation of bond transaction mechanism

3.3.1 Netting and clearing through agents were introduced for bond repurchases

Approved by the PBC, the Shanghai Clearing House (SCH) officially introduced net clearing to bond transactions on March 30, 2015, further expanding net clearing from existing spot bond trade to pledged and outright bond repurchases (repos). Besides, multi-tiered clearing agents were introduced to provide services to more market institutions.

Netting and clearing through agents for bond repos saw innovations mainly in net clearing and clearing through agents. For net clearing, the netting introducted for repos retains over-the-counter bilateral price inquiry in trading process with collaterals agreed upon by both parties. The netting of transactions with the same settlement date (either first issue or issue at maturity) is more efficient. The central counterparties (CCPs) are responsible for identifying the scope of qualified bonds and discount rates when selecting and managing collaterals, and mark-to-market is adopted. For clearing through agents, the agency mechanism introducted has provided conditions for more institutions to benefit from the advantages of net clearing.

1 IMF Policy Paper – Review of the Method of Valuation of the SDR: Staff considers that the three-month benchmark yield for treasury bills is the most suitable rate for inclusion in the SDR interest rate basket.This rate is observable daily from the China Central Depository and Clearing Co., Ltd.(CCDC). Moreover, developments in the CCDC three-month benchmark treasury yield in recent years suggested that it is broadly responsive to changes in underlying credit conditions in the onshore market. Currently, this rate is published daily by the CCDC.

The adoption of net clearing and clearing through agents for bond repos is significant in the following aspects: first, the CCP is able to get involved in debenture bond repos, which is a breakthrough in the credit approval by market institutional counterparties. It would strengthen the competitiveness of small clients in market trading by addressing the difficulty of small and medium-sized institutions in finding credit on interbank bond market. Second, commercial banks that accept debentures as pledged bonds could calculate risk provisioning by using either the risk weight of counterparties or that of pledged bonds, whichever is lower. This would effectively release risk capital quotas. Third, when the party involved in repos defaults when bonds mature, the party involved in reverse repos could remain unscathed in risk resolution as the CCP would deal with the pledged bonds. This would help solve the issue of low acceptance of pledged debeture bonds. Fourth, the adoption of clearing through agents would help comprehensive clearing members improve all-round cooperation with small and medium-sized investors on the interbank market by relying on clearing agents and strengthen client loyalty, which has far-reaching implications for optimzing the structure of interbank bond market.

3.3.2 The ChinaBond price indicator products were more widely used

In 2015, the ChinaBond price indicators were further developed to better reflect market features and cater to market developments by adding the valuation of new bonds, including 3A ChinaBond local government bond yield curve, bonds for specific purposes, financial bonds issued by insurance companies, panda bonds issued by foreign enterprises and interbank certificate of deposit issued in the Shanghai free trade zone. Efforts were made to continuously improve the valuation methods for asset-backed securities, local government bonds, perpetual bonds, bonds with project proceeds as the underlying asset, private placement debt financing instruments and preferred shares, optimize the valuation model for floating-rate bonds with clause on repaying principals by installment, and publish based on innovation the categorized index of ChinaBond investors.

With the growing number of ChinaBond price indicator products, market application was further expanded. As market benchmark rate, the ChinaBond government bond yield was officially included by the PBC in the statistical series. The Statistical Table of ChinaBond Government Bond Yield was included for the first time in the annual financial market statistical report issued by the PBC. The MOF disclosed for the first time the yield of 3-month and 6-month treasury bills on its website in November, which was another attempt since 2014 when it published the yield curve of key term government bonds. On the interbank bond market, bonds using ChinaBond yield curves as the pricing benchmark were expanded to include 168 perpertual medium-term notes, 7 perferred shares, 2 perpetual subordinated debts issued by securities firms and 1 medium-term note. The Asset Management Association of China also listed the ChinaBond valuation as the third party valuation system for identifying fair value. For foreign investors and markets, RQFII investors in domestic market, such as UCITS from Europe and Pictet, a Swiss asset manager, started to use ChinaBond index as the benchmark for business performance. The Korea Exchange also issued its first ETN on Korean market using ChinaBond 5-year government bond index as the underlying asset, which could be traced and replicated. In addition, to improve the transparency of RMB bond market, the ChinaBond price indicator product system is avaibale for foreign central bank type of institutions to review free of charge via information providers like the Bloomberg and Reuters.

4. Institution building on bond market

4.1 Streamline administration and delegate powers

4.1.1 Approval of bond transaction and circulation on the interbank market was removed

To implement the requirement of the State Council to streamline administration and delegate powers, the PBC published in May 2015 the *Circular on Adjusting Administrative Policies on Bond Transaction and Circulation on the Interbank Bond Market* (PBC Circular No. 9〔2015〕), which stipulated that bonds issued in line with laws could be traded and circulated on the interbank bond market upon the establishment of creditor-debtor relationship and the completion of registration. In addition to removing the administrative approval, the Circular improved market transparency and regulation, and strengthened ex post and concurrent management.

4.1.2 Registration-based reform of debt financing instruments was advanced, along with classified and multi-tiered management of registration

To better meet the national policy requirements of stabilizing growth, adjusting economic structure, promoting reforms, benefiting people's livelihood and preventing risks, and actively allow the interbank market to support the development of real economy, the NAFMII led the effort to revise such work institutions as the *Rules on the Registration and Issuance of Debt Financing Instruments* and the *Rules and Procedures for the Registration of Public Offering*. This round of institution revision adhered to centering upon information disclosure, which is the basic principle for registration-based system. Efforts were made to make improvements from three aspects, namely, mechanisms and procedures, information disclosure and management patterns. A classified and multi-tiered registration-based issuance and management system was put in place.

This round of institution improvement followed the principle of simplifying, optimizing, strengthening and detailing institutions by both adding new elements and abandoning unnecessary components in institutions and procedures as well as information disclosure requirements. Efforts were made to shift the self-discipline in debt financing instruments market from centering upon ex ante management to a mix of ex ante, concurrent and ex post management, which further developed the denotation and connotation of the registration-based system in China's interbank market. It would improve the efficiency and quality of registration-based issuance so as to provide better services to market and the real economy.

4.1.3 Online filing was introduced on the interbank bond market

In recent years, with the development of interbank bond market, the enthusiasm for investment among all types of financial institutions and non-incorporated product investors has been growing. The number of investors applying for filing has been increasing by fold for years in a row, as a result of which the tradtional practice of paper filing could no longer meet investors' demands. To cater to the need of market development, the PBC Shanghai Head Office fully implemented the requirement of the State Council to streamlining administrative approval and promoting an electronic government by actively exploring the application of modern cyber technology to support institutional innovation. In 2014, it developed the Filing Information System for Accessing National Interbank Bond Market (hereinafter referred to as the information system), which was officially put into operation on April 30, 2015. The launch of the information system made it possible to apply, approve and notify online, which has improved work efficiency substantially, but paper filing notification letter was still in use, the preparation and obtaining of which occupied a lot of time and was costly. Given this, the PBC Shanghai Head Office continued to explore the possibility of further optimizing this process by taking stock of experiences and engaging in innovation. It further optimized paper filiing notification letter on the basis of studying and weighing legal requirements and technical means. On December 1, the updated information system was launched successfully, which marked the beginning of complete online filing. Filing applicants could open accounts and get connected to the system by presenting the electronic filing notification letter to relevant intermediaries, such as the China Government Securities Depository Trust & Clearing Co. Ltd., the SCH and the National Interbank Funding Center. Intermediaries would open accounts for applicants and get them connected after verifying the filing notification letter through the information system, thus creating a completely electronic, paperless and transparent administrative approval of filing for market access. Under the precondition of ensuring filing is processed in line with laws and regulations, the completely electronic filing for accessing the national interbank bond market has greatly improved the efficiency of administrative approval, as the speed of processing filing applications has increased by fold. It has provided convenience to applicants and generated considerable economic and social benefits, as it has saved applicants tremendous time and economic costs. It further enhanced the PBC Shanghai Head Office's capacity for administering and providing services to bond market, and promoted the regulated development of interbank bond market.

4.2 Regulate bond issuance

4.2.1 The MOF regulated the issuance of local government bonds

The MOF published respectively in March and April 2015 the Provisional Measures for the Administration of the Issuance of General Local Government Bonds and the Provisional Measures for the Administration of the Issuance of Earmarked Local Government Bonds. General bonds refer to government bonds issued by provincial, autonomous region and municipality governments (including governments in cities specifically designated in the state plan that are authorized by provincial governments to issue bonds) for public welfare projects that generate no returns with interest and principal paid mainly with general budget revenue within the agreed timeframe. The term of this type of bonds include 1-year, 3-year, 5-year, 7-year and 10-year. The issuance of any one of them should not exceed 30% of the total issuance of general bonds during the year. Earmarked bonds refer to government bonds issued by provincial, autonomous region and municipality governments (including governments in cities specifically designated in the state plan that are authorized by provincial governments to issue bonds) for public welfare projects that generate some returns with interest and principal paid with the government fund corresponding to the public welfare project or earmarked revenues within the agreed timeframe. The term of this type of bonds include 1-year, 2-year, 3-year, 5-year, 7-year and 10-year. The issuance of 7-year and 10-year bonds combined should not exceed 50% of the total issuance of earmarked bonds across the year. The interest rate of these two types of bonds could be determined both through underwriting and bidding. It is based on the average yield of book-entry government bonds with the same term to maturities on the first to the fifth day prior to the underwriting or bidding date. Institutional investors inlcuding social security fund, housing provident fund, enterprise annuities and insurance companies as well as individual investors are encouraged to invest in these two types of bonds. The release of the above-mentioned two Measures was aimed at regulating local government debt management. Classifying local government bonds into general bonds and earmarked bonds would enable local governments to flexibly choose products for issuance based on their arrangement of fund use. By preventing the intensive issuance of long-term bonds and averting debt servicing peaks in the future, the restrictions on the issuance of bonds of a specific term also fully allowed for the need of financial institutions for bonds of different terms in asset allocation.

4.2.2 The National Development and Reform Commission promoted the steady development of enterprise bond market through regulations

The National Development and Reform Commission (NDRC) has issued a series of documents since 2015 to allow corporate bonds to play a positive role and promote steady economic growth. In March, the NDRC published four guidelines for the issuance of bonds for specific purposes, including the *Guideline for the Issuance of Bonds by Strategic Emerging Industries, the Guideline for the Issuance of Bonds by the Old-Age Care Industry*, the *Guideline for the Issuance of Bonds for Parking Lots Development in Urban Areas*, and the *Guideline for the Issuance of Bonds for the Construction of Urban Underground Colligating Pipe Gallery*. This came as an effort to further beef up bond financing to support seven major types of important investment projects and consumption projects in six major fields in a bid to boost the growth of investment in key sectors and consumption demands. In May, the NDRC unveiled two documents, namely, the *Notice on Giving Full Play to Corporate Bonds in Providing Financing to the Development of Key Projects to Promote Steady and Relatively Fast Economic Growth* and the supplementary explanation. It clearly stated that requirements for bond issues should be designed in a scientific and reasonable manner, the share of funds raised in the project's total investment should be increased, eligible enterprises should be allowed to use not more than 40% of funds raised for loan repayments and working capital replenishments, and enterprises should be allowed to repay previous corporate bonds issued for projects under construction whose principals are already being repaid, and repay other high-cost financing. Procedures for changing the distribution of funds raised were simplified, requirements regarding finance indicators for enterprise issuers were adjusted properly, and urban investment enterprises were actively encouraged to take part in the bond financing of PPP projects.

In July, the NDRC drafted and published the *Provisional Measures for the Administration of Project Proceeds Bonds*, which stipulated that funds raised through issuing project proceeds bonds should only be used for the construction, operation or equipment purchase of the designated project. It should not be used to swap for the capitals of the project or repay other debts related to the project, excluding the repayment of bank loans that have been used and exceed the agreed size of project financing arrangments. With regard to issuance patterns, project proceeds bonds could be issued by public offering through bidding or book building, or private placement targeting institutional investors. In September, the NDRC announced the *Notice on Promoting the Administrative Reform of Registration-based Filing in Foreign Debt Issuance by Enterprises* to remove quota approval for foreign debt issuance by enterprises and adopt registration-based filing. In the meantime, the size of enterprises' foreign debt was expanded to shore up key sectors as well as industrial transformation and upgrading, which was an effective way to make use of low-cost financing from abroad. Enterprises with good credit ratings and high debt servicing capacity were encouraged to issue foreign debt and freely use funds raised at home and abroad based on their actual needs, with priorities given to one belt one road initiative, the coordinated development among Beijing, Tianjin and Hebei Province, the Yangtze River Economic Belt, and major project construction as well as key sector investments such as international industrial capacity and equipment manufacturing cooperation. In October, the NDRC promulgated the *Opinions on Work Related to Further Promoting the Market-Based Reform of Corporate Bonds* to further lower requirements for the issuance of corporate bonds, which covered six aspects, such as reducing the review and approval cycle for bond issuance, lifting quantitative restrictions on issuers (including enterprises at county level) with AA or higher ratings, and exempting enterprises with high credit ratings from reviews. In December, the NDRC published the *Opinions on Streamlining the Application and Approval Procedures for Corporate Bonds, Strengthening Risk Prevention and Reforming Regulatory Approach* to streamline the application procedures for corporate bonds, improve the efficiency in using funds raised via bond financing, strengthen the obligation of intermediaries and information disclosure, and emphasize concurrent and ex post regulation.

4.3 Promote market development

4.3.1 Private equity funds, futures companies, and asset management products were given access to the interbank bond market

To further diversify investors on the interbank bond market, the PBC published in June 2015 the *Notice on Issues Concerning Giving Private Equity Funds Access to the Interbank Bond Market* (PBC Financial Market Department Document No. 17〔2015〕), allowing eligible private equity funds to invest in the interbank bond market. This means that sunshine private equity funds no longer need to invest in bonds via trusts or special fund channels, which would not only help make trading on the interbank bond market more brisk and liquid, but also slightly lower transaction cost. In the meantime, to expand the investment channels for furtures companies' equity funds and asset management products, futures companies and their asset management products were granted access to the interbank bond market in accordance with the *Circular of the People's Bank of China on Issues Concerning Giving Financial Institutions Access to National Interbank Bond Market* (PBC Circular No. 5〔2002〕). Futures companies and their asset management products should seal spot bond trades with market markers on a trial basis or try allowing market making institutions to seal spot bond trades through bilateral quotes and quotes at request.

4.3.2 The CSRC issued the *Administrative Measures for the Issuance and Trading of Corporate Bonds*

To implement the decision of the Third Plenary Session of the 18th Central Committee of the CPC and the general objective of promoting regulated bond market development set in the *Several Opinions on Further Promoting the Healthy Development of Capital Market* promulgated by the State Council, the CSRC revised the Measures for Pilot Issuance of Corporate Bonds in January 2015, and renamed the revised regulation as the *Administrative Measures for the Issuance and Trading of Corporate Bonds* (hereinafter referred to as the Administrative Measures). Major revisions are as follows: first, the scope of issuers was expanded. According to the Administrative Measures, the scope of issuers was expanded to all incorporated legal entities, whereas issuers originally were limited to companies listed on domestic stock exchange, domestic joint-stock limited companies issuing shares listed on overseas market to overseas investors and securities firms. Second, means of issuance was diversified. Based on the pilot experience of private placement debts by small and medium-sized enterprises (SMEs), the Administrative Measures devoted one section to regulations on private placement, which came as an effort to fully institutionalize private placement. Third, the number of bond exchanges was increased. The Administrative Measures expanded the trading of corporate bonds issued via public offering from stock exchanges in Shanghai and Shenzhen to National Equities Exchange and Quotations. Trading of corporate bonds issued through private placement was expanded from stock exchanges in Shanghai and Shenzhen to National Equities Exchange and Quotations, interagency private placement products quotations and services system, and the counter of securities firms. Fourth, approval procedures of bond issuance was simplified. The Administrative Measures abolished the sponsor and issuance approval committee for public offering of corporate bonds to simplify approval procedures. Fifth, classified management was introduced. The Administrative Measures classified public offering of corporate bonds into two types, one targeting public investors and the other targeting qualified investors, and improved arrangements for the administration of appropriateness of investors concerned. In addition, the Administrative Measures also stressed enhanced bond market supervision and better protection of bondholders' rights and interests.

The release of new measures on corporate bonds fully reflected the requirement of the new government to transform government's function to streamline administration and delegate powers, provide wider access and conduct tighter regulation. The Shanghai Stock Exchange and the Shenzhen Stock Exchange then issued supporting rules for the listing of corporate bonds, such as the *Rules of Listing Corporate Bonds*, which further simplified the bond listing procedures, enhanced bond classification and dynamic management, optimized information disclosure and boosted the development of corporate bond market.

4.3.3 Targeted institutional investors were introduced to private placement framework

To better support the development of real economy, foster investors on debt financing instruments market, and cater to market needs, the NAFMII led the efforts made by market members in drafting and publishing in November 2015 the *Detailed Rules of Selecting Targeted Institutional Investors for Private Placement of Debt Financing Instruments* and the list of targeted institutional investors for private placement of debt financing instruments in 2015, which was a clear move to introduce targeted institutional investors to the private placement of debt financing instruments.

After the introduction of targeted institutional investors (N+X), investors in instruments issued through private placement were further subdivided into targeted institutional investors (N) and specific institutional investors (X). Upon completing the procedures of purchasing certain private placement instruments, N is deemed to have signed the private placement agreement for this instrument, thus subject to rights and obligations stipulated in the agreement, and agree to information disclosure standards as agreed. There is no need to sign another private placement agreement when investing in a single instrument issued through private placement. This will greatly save investors time when investing in private placement instruments, which will make it easier for issuers to find investors and bring substantive improvements to the liquidity on the secondary market for private placement instruments to lower enterprises' financing cost. The introduction of targeted institutional investors will provide more convenience to enterprises that seek financing through private placement. It is not only an important part in developing market mechanisms, but also a major measure to deepen the development of interbank market.

4.3.4 Local government bonds were included as the pledge for time deposits

The MOF and PBC published on July 14 the *Notice on Issues Concerning the Administration of Pledges for Commercial Banks' Time Deposits in Treasury Cash Management at Central and Local Levels* to include local government bonds as the pledge for time deposits from commercial banks in treasury cash management. China's government bonds and local government bonds that are pledged are equal to 105% and 115% of the deposits respectively. This joint statement by the PBC and MOF to finalize details in the administration of pledges was a concrete measure to improve the liquidity of local government bonds in the context of massive local government bond issues and smooth local government debt swap operations, which would help boost investor's confidence in holding local government bonds.

4.3.5 Efforts were made to develop a system for collecting supplementary information on bond statistics

To fully and accurately reflect bond market developments as well as comprehensively monitor and asses the impact of bond market on monetary policy and financial stability, the PBC and the CSRC jointly promulgated in October 2014 the *Notice on Publishing the Institutions on Bond Statistics* (PBC Document No 320〔2014〕) (hereinafter referred to as the Institutions). To meet the requirements of the Institutions and ensure the accuracy and efficiency of the collection of supplementary information, the CDCC actively developed and launched the PBC's system for collecting supplementary information on bond statistics under the guidance of the PBC. In October 2015, it hosted a mobilzation meeting on filling issuance information in bond statistics. The system ran smoothly, as all reporting agencies made active use of the system to fill in information, which well supported the improvement of bond market statistical institutions.

5. Opening up of bond market

5.1 Participants in the interbank bond market and the scope of investment kept expanding

In 2015, foreign issuers of RMB bonds on China's interbank bond market continued to expand, with the pilot issuers covering foreign government agencies, international commercial banks and foreign non-financial enterprises. Among them, the HSBC (Hong Kong) and Bank of China (Hong Kong) issued RMB-denominated financial bonds on the interbank bond market with a quota of 1 billion yuan and 10 billion yuan respectively. It was the first case of international commercial banks being allowed to issue RMB bonds on the domestic interbank bond market.

In the meantime, the procedures for investment by foreign institutions in the interbank bond market were simplified with broader scope of investment. In June 2015, the PBC issued the *Notice on Bond Repos by Foreign RMB Clearing Banks and Foreign Participating Banks on the Interbank Bond Market,* which allows foreign RMB clearing banks and participating banks with access to the interbank bond market to engage in bond repos, including pledged and outright bond repos. In particular, outstanding financing through repos should not exceed 100% of outstanding bond holdings, and funds obtained through repos could be remitted abroad for use overseas. In July, Singapore Branch of the Industrial and Commercial Bank of China completed the first pledged bond repo on the national interbank bond market, with the trading value reaching 200 million yuan. Allowing foreign RMB clearing banks and participating banks to take part in RMB repos could provide these foreign institutions with convenience in RMB investment and financing, which would play a positive role in increasing the liquidity in off-shore RMB market.

In July, the PBC promulgated the *Notice on Issues Concering the Investment with RMB in Interbank Market by Foreign Central Banks, International Financial Organizations and Sovereign Wealth Funds*, which further clarified issues related to the investment in the interbank market by foreign institutional investors, including investment channels, procedures, qualifications and requirements for investment agents. Application procedures were reduced to a filing-based system with restriction on quotas lifted for these foreign institutions. The scope of investment was expanded from spot bond trade to bond repos, bond lending, bond forwards, interest rate swaps and forward rate agreements. Besides, they are allowed to choose the PBC or interbank market settlement agents as the agent for transactions and settlements, which facilitated the investment in the interbank bond market by institutions like foreign central banks and increased investment efficiency.

As of end-2015, a total of 308 foreign institutions were given access to the interbank bond market, an increase of 126 over the previous year. These foreign institutions include foreign central banks, international financial institutions, sovereign wealth funds, RMB clearing banks in Hong Kong of China and Macau of China, foreign participating banks, foreign insurance institutions, RQFII and QFII. At end-2015, outstanding bonds held by foreign institutions on the interbank bond market jumped 13% compared with end-2014, posting 648.435 billion yuan, account for 1.4% of total bond custody on the interbank market. With the quickening pace of on-shore bond market opening up, the approval of foreign institutions would also be expedited further, and the size of foreign institutional investors along with their trading activities on the interbank bond market would keep growing.

5.2 Efforts were made to explore bond activities in the free trade zone

In October 2015, the PBC, along with the Ministry of Commerce, CBRC, CSRC, CIRC, the State Administration of Foreign Exchange and the Shanghai Municipal Government, jointly published the *Plan on Further Promoting the Pilot Innovation of Financial Opening up in China (Shanghai) Pilot Free Trade Zone and Expediting the Development of Shanghai International Financial Center*. The plan supports the issuance of RMB bonds on on-shore market by foreign parent companies or subsidiaries of enterprises located in the Shanghai free trade zone, and funds raised can be used both at home and abroad depending on the need of enterprises. In December, the PBC unveiled the guiding opinions for the development of a free trade zone in Guangdong, Fujian and Tianjin. Support is extended to financial institutions and enterprises in these free trade zones in the issuance of RMB bonds on off-shore market and funds raised can be transferred back to China when the need for fund use arises. Foreign parent companies of enterprises in the free trade zone can also issue RMB bonds on on-shore market.

5.3 Off-shore RMB bonds grew increasingly diversified

As of end-2015, issuance of RMB bonds on off-shore market posted 157.313 billion yuan, slumping 28.5% compared with that of 2014. However, the issuers and regions where RMB bonds were issued expanded continuously with products increasingly diversified.

In October 2015, the PBC successfully issued 5 billion yuan RMB-denominated 1-year central bank bills in London with a coupon rate of 3.1%. This move would not only help diversify RMB financial products with higher credit ratings on off-shore market, but also deepen the development of off-shore RMB market, which would in turn play a significant role in promoting cross-border trade and investment facilitation.

In November 2015, the MOF issued by tender 10 billion yuan RMB-denominated government bonds to institutional investors in Hong Kong, including 5 billion yuan 3-year treasury bills, 3 billion yuan 5-year treasury bills, 1 billion yuan 10-year and 1 billion yuan 20-year government bonds, with the coupon rate being 3.29%, 3.4%, 3.31% and 4% respectively. Besides, it issued 2 billion yuan 3-year RMB-denominated treasury bills to five foreign central banks and regional monetary authorities with the coupon rate being the same, which was 3.29%.

In November 2015, the China Construction Bank (Asia) successfully issued 1 billion yuan 2-year 21 Century Maritime Silk Road RMB-Denominated Bond, first of its kind in the world, which was listed on the exchange in Malaysia. In October, the Agricultural Bank of China issued 600 million yuan 2-year innovative RMB-denominated green bonds in London, the UK, which was a move welcomed by market investors.

Domestic non-financial enterprises issued RMB bonds on off-shore market. In March 2015, the Hainan Airlines (International) Co. Ltd. issued 200 million yuan 3-year RMB bonds in Republic of Korea in tandem with the China Construction Bank (CCB) Seoul Branch. In October, the

Tianjin Eco-City Investment and Development Co. Ltd. issued 1 billion yuan 3-year RMB bonds in Singapore with a coupon rate of 4.65%, and subscriptions from foreign institutional investors outnumbered issuance. This was an important step in the RMB internationalization and also provided a new option for domestic enterprises in infrastructure sector to expand financing channels.

In 2015, foreign institutions were very active in RMB bond issuance on off-shore RMB market. Financial markets in Hong Kong, Taiwan, Macau, London, Frankfurt, Australia, Luxembourg, Dublin, Tokyo, and Kuala Lumpur all witnessed the issuance of RMB bonds. In July, the Japanese Mizuho Bank issued 250 million yuan RMB bonds in Japan, and listed it on the specialized Tokyo bond market of the Tokyo Stock Exchange. This was the second RMB bond issued in Japan after the first one issued by the Bank of Tokyo-Mitsubishi UFJ. In February, Korea Eximbank issued 1 billion yuan 3-year RMB bonds, which were listed on Taiwan securities over-the-counter trading center and Singapore Exchange. In November, the China Europe International Exchange was officially put into operation in Frankfurt. Two RMB-denominated exchange-traded funds and one RMB-denominated “One Belt One Road” bond were listed for trading. The establishment of an off-shore trading platform for RMB financial instruments in Germany marked new opportunities for RMB products in European market.

5.4 New progress was made in cross-border regulatory cooperation

At end-October 2015, Premier Li Keqiang visited the Republic of Korea (ROK), and China-ROK financial cooperation saw new progress. The China Foreign Exchange Trade System (CFETS) introduced the direct trade between the Chinese yuan and the Korean won. The Korean government would amend relevant domestic laws while facilitating the development of RMB bond market in ROK. China also supports domestic institutions in issuing bonds in ROK. Both sides agreed to expand the existing pilot program of allowing enterprises to borrow RMB funds from Korean banking institutions from Qingdao to Shandong Province at large, which was aimed at lowering Chinese enterprises’ financing cost and enabling Korean banking institutions to effectively manage RMB funds. In the meantime, both sides considered launching the pilot program of equity crowd funding in Shandong to promote the cooperation between Shandong regional equity market and KOSDAQ in ROK. In addition, under the precondition of risks being under control, efforts would be made to develop the mechanism for promoting connectivity of bond market infrastructures in China and ROK, including among registration, custody and settlement agencies. In December, the PBC and the Central Bank of the Russian Federation signed a memorandum of understanding, agreeing to provide convenience to each other in issuing in the other party local currency-denominated bonds, which was a move to deepen substantive cooperation in financial sector.

6. Prospects for bond market development

2016 is the initial year of the decisive stage in building a well-off society in an all-round way, the critical year in promoting structural reform, and a pivotal year for the bond market to make a new step forward under the New Normal. In recent years, China’s bond market has developed by leaps and bounds, while playing an increasingly important role in supporting macro adjustment, promoting reform and development, improving social financing structure, and lowering enterprises' financing cost. It also echoed other major financial reform and opening up measures, such as market-based interest rate reform and the RMB internationalization. These are mutually-reinforcing measures. There is a great potential for bond market development in the future, but against the backdrop of economic downturn, the credit risk of micro entities is gradually growing explicit, implicit guarantee and unconditional redemption have led to price distortions in some bonds, effective regulatory coordination is inadequate, and financial market opening up is expedited continuously, all of which has brought new challenges for institutional improvement and product innovation.

6.1 Size of issuance will continue to grow

The 2015 Central Economic Work Conference stressed that proactive fiscal policy should increase its policy intensity, which means that the size of new government bond issues in 2016 will expand, and the quota for local government debt swap will increase slightly. As policy constraint on the issuance of urban development investment bonds is loosened, its issuance is expected to grow too. Besides, the introduction of such new products as green financial bonds and capital replenishment bonds will attract more financial institutions to finance by issuing financial bonds. Registration-based system was adopted in issuing credit asset-backed securities (ABSs) with underlying assets expanding gradually from enterprise loans to other diverfied forms of assets, including personal pledged loans, auto loans, credit card account receivable, and infrastructure fees. This will also prompt the continuous expansion of the issuance of ABSs. In the context of market-based interest rate and expedited release of credit risks, such credit risk derivatives as credit default swap will see breakthroughs. Besides, debt issuance procedures will be simplified and more convenient no matter on the interbank market or the exchange market. Given the above factors, the size of issuance on bond market will continue to grow in 2016, which will in turn more effectively meet the financing needs of the real economy.

6.2 Investors will be more diversified

Diversified investors will help improve market activities and liquidity. At present, the PBC has already allowed eligible bank wealth management products, qualified non-financial institutional investors, rural financial institutions and trust products, asset management schemes at securities firms, targeted client asset management schemes at fund management firms and their affiliates, asset management products of insurance asset managers and private equity funds to invest in the interbank bond market, which greatly improved the diversity of bond market investors. Next, the interbank bond market will continue to target qualified institutional investors by further diversifying eligible investors and optimzing supporting policies, such as improving fiscal and tax support so as to attract and encourage more long-term investment in the interbank bond market.

6.3 Institution and infrastructure building will continue to improve

In recent years, bond market institutions and infrastructures have been improved continuously. For instance, administrative approval of bond transactions and circulations on the interbank bond market was removed in 2015. The indicator system for assessing market makers was improved continuously, and efforts were made to incentivise market making activities. However, there are some issues to be addressed, for example, financial market infrastructures in China are yet to be further improved, legal basis is yet to be enhanced, and the single trade reporting arrangement has not been put in place. Next, China will further improve institutional arrangements and market infrastructures, which include issuance, trading, clearing, settlement, custody, and trade repository, by drawing on international experience and taking into account China's circumstances. It will clarify and strengthen the role of macro-prudential regulators in supervising financial market infrastructures, enhance transaction monitoring and risk warning, improve regulatory efficiency, develop and improve such market constraints as information disclosure and credit ratings, and put in place as well as improve the ex post mechanism for resuming relevant business activities and resolving risks. All this is aimed at safeguarding the efficient and safe performance of China's financial market and the overall stability.

6.4 Product and institution innovation will continue

To activate market dynamics and better meet the ever-growing investment and financing needs of market members and risk management requirements, China introduced capital replenishment bonds, green financial bonds and standard bond forwards to the interbank bond market in 2015. Central clearing was provided to standard bond forwards and standard interest rate swaps, net clearing and clearing agents were introduced to bond repos, the clearing through central counterparties (CCPs) was adopted for copper premium swaps in the free trade zone, clearing services were provided to spot commodities in the free trade zone, and CCP clearing was introduced to RMB styrene swaps and ethylene glycol import swaps in the free trade zone. Next, efforts will be made to further improve the market-based innovation mechanism for bond market products and institutions. In the context of regulated development, greater efforts will be made to give play to market entities and intermediaries in instrument and product innovation so as to actively and steadily advance innovation and help the real economy effectively manage various risks.

6.5 The process of internationalization will be deepened further

In 2015, issuers on the interbank bond market were further expanded to foreign financial institutions and governments, eligible foreign participating banks and clearing banks were given access to bond repos, approval procedures for foreign central bank-type of institutions seeking access to the interbank market were removed along with the investment quota. The scope of investment was also expanded. With the inclusion of the RMB in the SDR basket and further developments in the RMB internationalization, the size of RMB liquidity management by foreign institutions will grow in an accelerated manner, the demand for RMB asset allocation will grow prominent, and investors as well as issuers on the bond market are expected to diversify. Meanwhile, to better meet the investment and financing needs of foreign institutions, institutional arrangements will also be improved further, which include accounting, auditing policy, tax and credit ratings that are related to opening up.

Box 3 Local Government Debt Swap Launched

In recent years, China's local government debts ballooned with risks growing prominent. To avoid intensive unwinding of local government debt issues, prevent risks to financial system, and ensure stable economic growth, the PBC actively cooperated with fiscal departments in 2015 in putting in place a transparent and regulated investment and financing mechanism for urban development so as to support local governments in swaping high-cost and less transparent short and medium-term debts for low-cost and more transparent medium and long-term debts. In May, the MOF, PBC and CBRC jointly issued a notice (MOF Fiscal Agent Department Document No. 102〔2015〕) to clarify debt swap approach, scope, price and supporting policies, officially introducing local government debt swap plan.

1. Content of local government debt swap plan

1.1 Swap approach

Local government debt swap is conducted mainly through private placement, which is like each family taking care of its own child. The provincial government issues debts to targeted creditors of local government debt stock through book-building to swap for corresponding debt stock. This approach has an element of administrative intervention, but could keep investor structure unchanged. Therefore, the market impact is moderate, as it helps reduce the impact on market liquidity and interest rate. Meanwhile, it is supplemented by public offering.

1.2 Scope of swap

Local government debt swap covers bank loans falling due in 2015, which is part of the local government debt stock as of June 30, 2013 identified by government debt audit in 2013, as well as agreed local debts of other institutions, such as trusts, securities and insurance institutions.

1.3 Swap price

In local government debt swap plan, the lower bound of interest rate of bonds issued via private placement is the average of government bond yields on the first to the fifth day prior to the date of issue, while the upper bound is 130% of the average of government bond yields on the first to the fifth day prior to the date of issue.

1.4 Supporting policies

The local government debt swap plan includes local government bonds as a collateral in treasury cash management at central and local levels and in the operation of PBC's monetary policy instruments (SLF, MLF, PSL etc.), which is aimed at effectively reducing the adverse effect of declining rate of returns on assets on banks after local government debt swap.

2. Basic profile of local government bond issues in 2015

In 2015, 34 local governments, including 4 cities specifically designated in the state plan, issued a total of 3.8351 trillion yuan local government bonds, 3.2 trillion yuan swapped bonds and 600 billion yuan new bonds. Public tender was the major form of issuance, accounting for 4/5 of total issuance, whereas swapped bonds issued through private underwriting represented about 1/5. The issuance of local government bonds in 2015 presented the following major features:

First, size of local government bond issues was massive and the pace was fast. In 2015, local government bond issues totalled 3.8 trillion yuan, and three rounds of local government debt swap were almost finished, with total issuance basically on a par with that of government bonds and financial bonds during the same period.

Second, the maturities of local government bonds were longer, while the interest rate was lower. Local government bonds have five tenors, 1-year, 3-year,5-year,7-year and 10-year. Most provinces and cities chose to issue 3-year, 5-year, 7-year and 10-year bonds with the average term being 6.41 years. The interest rate of bonds issued previously via public tender was almost the same as that of government bonds, and the spread was mainly attribtued to market fluctuation. On August 7, the interest rate of local government bonds issued by Liaoning Province through public offering spiked. In particular, the interest rate of 10-year bond reached 3.99%, the upper limit of interest rate range, 52 basis points (bps) higher than the benchmark rate of government bonds, but the failed tender still amounted to 150 million yuan. Afterwards, the interest rate of local government bonds issued through public tender increased gradually, 20 to 30 bps higher than the benchmark rate of government bonds in general. However, given the fact that local government bonds are less liquid in general, the interest rate is still slightly lower overall. Besides, the interest rate of swapped debts issued through private placement was broadly 15% of the average yield of government bonds except Hebei, Shanghai and Xiamen.

Third, banks constituted the bulk of investors in local government bonds. Non-bank institutions showed little willingness to invest, as local government bonds were issued at a lower rate but with longer maturities. The public information on underwriting group of local government bonds showed that participating institutions mainly included banks as well as local commercial banks and rural credit cooperatives. Moreover, holdings of lead underwriters accounted for 80% of the total, and that of ordinary underwriting groups comprised nearly 20% of the total, whereas other creditors like securities, trusts and insurance institutions had few holdings.

3. Several issues that merit attention

3.1 The decrease in the indebtness of financing vehicles is limited, and financing pressure remains high in the future

From the perspective of a financing vehicle mainly designed for profit-making projects, liabilities are largely listed as the third type of debts, on which the impact of deb swap could be neglected. However, in the context of local government debt management reform, profit-making vehicles are concerned about uncertainties in future enterprise capital replenishments by government and tend to be prudent with regard to future financing and development models.

From the perspective of a financing vehicle mainly designed for public welfare projects, first, swap projects are not separated from the financing vehicle. The assets of the financing vehicle remain unchanged, whereas the liabilities shift from creditors' claims to accounts payable to local governments. Creditors are changed, but total liabilities and asset-to-liability ratio remain the same. Second, swap projects are separated from the financing vehicle. Accounts *receivable on the asset side of the financing vehicle and long-term borrowing on the liability side decline simultaneously, resulting in a lower asset-to-liability ratio.*

In general, financing vehicles have undertaken the construction of most infrastructures with increasingly higher investment pressure. Affected by factors such as uneven size of government debt swap among financing vehicles, uncertainties in identifying local government debts in the future, and restrictions on project loans through financing vehicles, the future financing plan of government vehicles are largely passive and prudent, with more reliance on governments' efforts to vigorously develop urban development funds and diverse ways to reduce debt stock.

3.2 Credit ratings of local government bonds are not highly distinguishable, and important rating indicators are hard to obtain

In 2015, the MOF helped local government bonds acquire AAA- rating. However, according to data disclosed on www.chinabond.com.cn, among 34 isssuers as of now, the rating of general bonds and earmarked bonds issued is AAA without marked divergence in credit ratings. First, as the credit rating of local government bonds adopts the issuer-pay model and bonds are usually issued by tender, the independence of credit ratings agencies (CRAs) is restricted. CRAs often win the bid by such means as lowering rating fees and promising rating results. For instance, in the case of Shanxi local government bonds, the Golden Credit Rating International Co. Ltd. cut the price substantially when rating the bond. Second, it is hard to obtain accurate data required by credit ratings. Such information as government work reports as well as budget and final account reports provided by local governments to CRAs are all made public during the Two Sessions of the local governments, while debt data that credit rating needs most are only available as of end-June 2013 most of the time. Moreover, data are less consistent. Some key data that are critical in rating cannot be disclosed. As a result, CRAs can't obtain accurate data needed in regular rating process.

3.3 Issuance of local government bonds has an element of administrative intervention, and financial risks may emerge

The primary objective of current local government debt swap is to reduce the pressure resulting from intensive debt repayments by local governments. Administrative intervention is a prominent issue in the issuance of local government bonds. It is to some extent a short-sighted action. Furthermore, the pricing of interest rate of bonds issued by government intervention will exert some negative influence on the development of a market-based bond financing regime. On the one hand, the interest rate of bonds issued can't reflect the actual market rate level. For local government bonds issued by public tender, the interest rate is usually based on the average rate of government bonds of the same tenor on the first to fifth day prior to the issuance. The actual rate is almost on a par with that of government bonds. Rate differentials among bonds issued by different provinces mainly reflect market fluctuations. On August 7, in the wake of failed bid in a bond issue by Liaoning, the interest rate of local government bonds issued by public tender moved up gradually. At present, it is largely 15 to 30 bps higher than the rate of government bonds, but the actual rate still follows the *guidance of local fiscal departments. For targeted debt swap, debt is directly swapped for bank loans. It is non-negotiable and must be held to maturity. Thus, it requires a higher liquidity premium as compensation. The interest rate is negotiated betweeen local fiscal departments and creditors, which is typically 115% of the average rate of government bonds. On the other hand, investment decisions in local government bonds are not an absolute commercial choice. Commercial banks and rural credit cooperatives are the major investors in local government bonds. However, bond assets and deposit interest rate spread are reversed in subscribing banks. For example, the rate of 5-year local government bonds is about 3.3%, whereas the cost of 5-year deposits in big banks is around 3.6%, and a bit higher in joint-stock banks, which is in the order of 3.8%. Commercial banks purchasing local government bonds mostly pay the interest rate spread, and the cost is about 30-50 bps higher than profits.*

3.4 Local government debt swap affects banks traditional revenue model

Commercial banks' claims on local governments are the major subject of local government debt. As local government bonds have credit ratings close to that of sovereign bonds and are listed among monetary policy instruments, swap efforts improved the liquidity and quality of bank assets, but also reduced interest income from bank loans. It is estimated that 3.2 trillion yuan swap size will give rise to more than 100 billion yuan losses in bank interest income, accounting for about 5% of the profits of the banking sector. Thus, banks need to adjust and reallocate assets. Specifically speaking, banks off-balance sheet financing has dwindled since 2015, while on-balance sheet financing has grown steadily. According to estimate of bank asset structure in 2014, bank loans declined from 46% to 35%, quasi-credit financing dropped from 9% to 6%, while bond investment jumped from 32% to 45% after local government debt swap.

In addition, local government debt swap will lock in the term of and returns on some new investments that fall due, which will crowd out some other new bond investments. This is mainly reflected in lower duration and higher expected yeild of other new bonds.

4. Comments and suggestions

First, ensure market-based issuance of local government bonds. Non-market-based bond issues have distorted market pricing mechanism and sowed the seed of risk, which is not conducive to fostering a long-term bond issuance mechanism. It is suggested that market rules be respected, administrative guidance be reduced, and an open, fair and transparent market-based pricing mechanism be adopted for bond issuance.

Second, achieve adequate information disclosure and guide expectations for market stability. Clear policy signals and adequate information disclosure are key to anchoring investors' expectations. With the growing size of local government debt swap, it is suggested that local governments improve information disclosure procedures, improve the accuracy of information disclosure and make information disclosed more complete.

Third, strengthen inter-agency coordination to forge regulatory synergy. The implications of local government debt swap are broad, and swap cycle is long. Given this, intensifying *inter-agency communication and coordination and making sure macro adjustment policies are rational and proper are key to ensuring smooth local government debt swap. The MOF, PBC and other agencies should jointly coordinate and communicate the pace and size of local government debt swap by taking into account macroeconomic developments and market liquidity. In the meantime, they should clarify market expectations to safeguard steady market performance.*

Part IV Stock Market

In 2015, China's stock market witnessed a substantial expansion in fundraising scale with refinancing playing a predominant role. Stock indexes declined after an initial surge and market fluctuations sharpened. Indexes of Small and Medium-sized Enterprise (SME) Board and Growth Enterprise Market (GEM) Board soared and market capitalization continued to grow. Investors of various types saw a significant increase in number and stock transactions remained brisk across the year. Construction of a stock market based on law was steadily advanced and basic market-based institutional reform was deepened. A multi-layered capital market was continuously pushed forward and product innovation and market opening-up achieved new progress.

1. Stock market performance

1.1 New share issue and financing

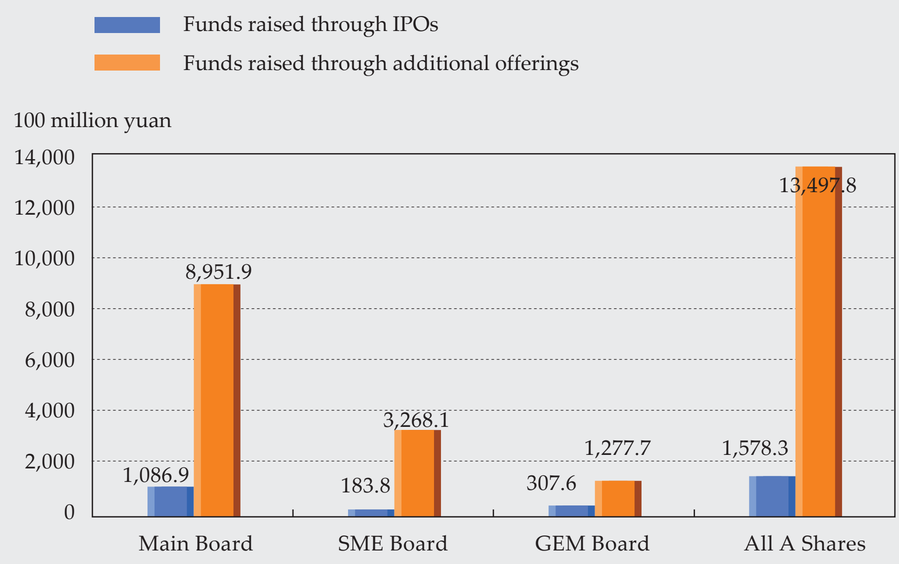
In 2015, the fundraising scale of China's stock market witnessed a substantial increase with refinancing taking the lion's market share. A total of 224 enterprises got listed through Initial Public offerings (IPOs) with the raised fund registering 157.83 billion yuan, a year-on-year increase of 79.2% and 136.0% respectively. In particular, the main board, SME board and GEM board saw 92, 45 and 87 cases of IPOs respectively and the amount of raised fund stood at 108.69 billion yuan, 18.38 billion yuan and 30.76 billion yuan respectively. Moreover, the year of 2015 also witnessed 850 listed companies raising funds through additional offerings and the total funds raised hit 1,349.78 billion yuan, a year-on-year increase of 74.5% and 97.9% respectively. To be specific, 366, 271 and 213 listed companies concluded additional offering on the main board, SME board and GEM board with the raised fund registering 895.19 billion yuan, 326.81 billion yuan and 127.77 billion yuan respectively. In 2015, a total of 12 listed companies issued preferred stocks, raising funds totaling 200.75 billion yuan, up 60.5% as compared with the previous year.

1.2 Stock index and trading

1.2.1 Stock indexes dropped before an initial surge with the SME board and GEM board indexes growing substantially

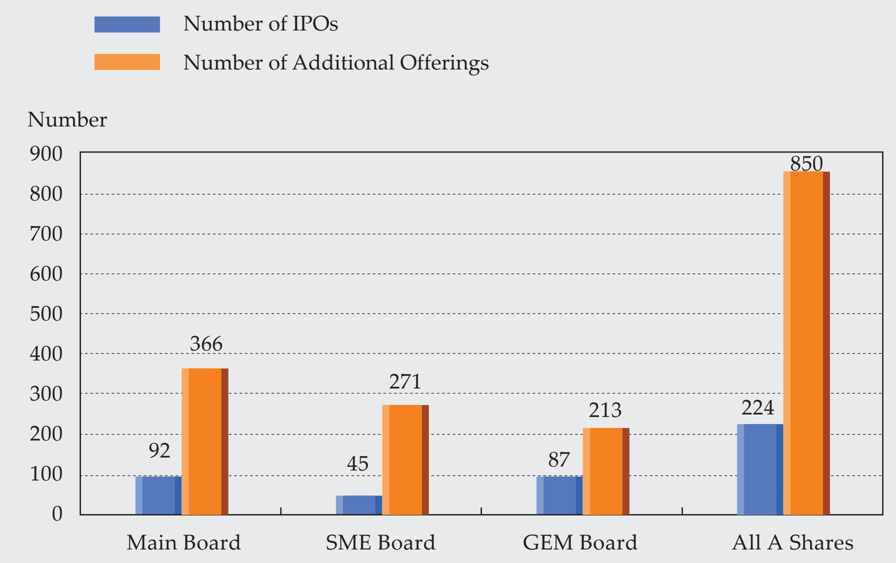
In 2015, stock indexes surged first and dropped drastically afterwards. Stock indexes soared before mid-June and fell dramatically after that. Nonetheless, at the year-end, the SME board and GEM board index still boasted a noteworthy annual growth. As of December 31 2015, Shanghai Stock Exchange (SSE) Composite Index, Shenzhen Stock Exchange (SZSE), the GEM Board Index and the SME Board Index closed at 3,539.2, 12,664.9, 2,714 and 8,393.8 points, growing 9.4%, 15%, 84.4% and 53.7% as compared with the beginning of the year respectively. On June 12, 2015, when the indexes hit the annual peak, the SSE Index, SZSE Index, GEM Board Index and SME Board Index closed at 5,166.35, 18,098.3, 3,899.7, 11,996.5 points respectively, up 59.7%, 64.3%, 165% and 119.7% as compared with the beginning of the year respectively.

Figure 4.1 Fund Raised through IPOs and Additional Offerings on the A-share Market in 2015



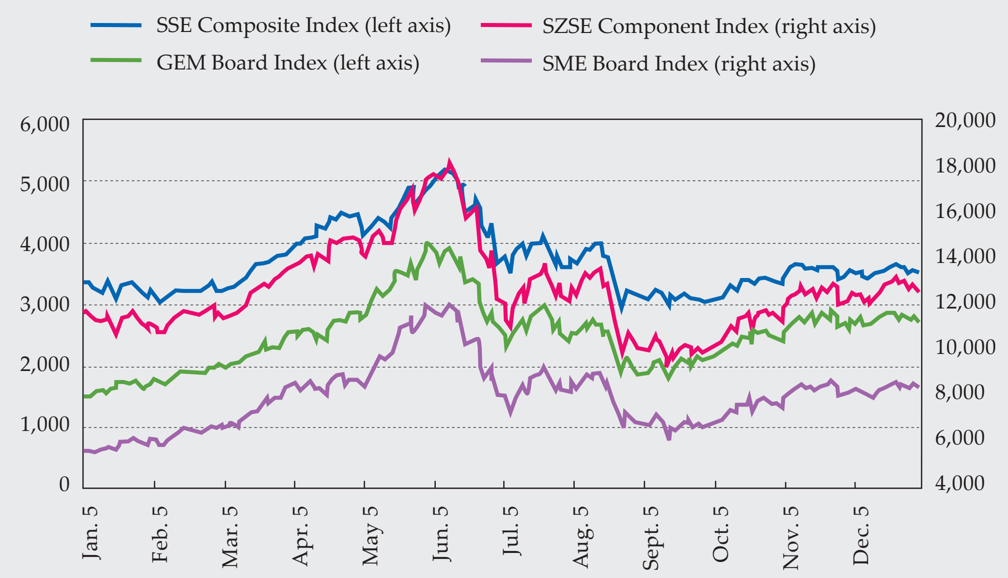
Source: Wind info.

Figure 4.2 Number of Listed Companies Raising Funds on the A-share Market in 2015



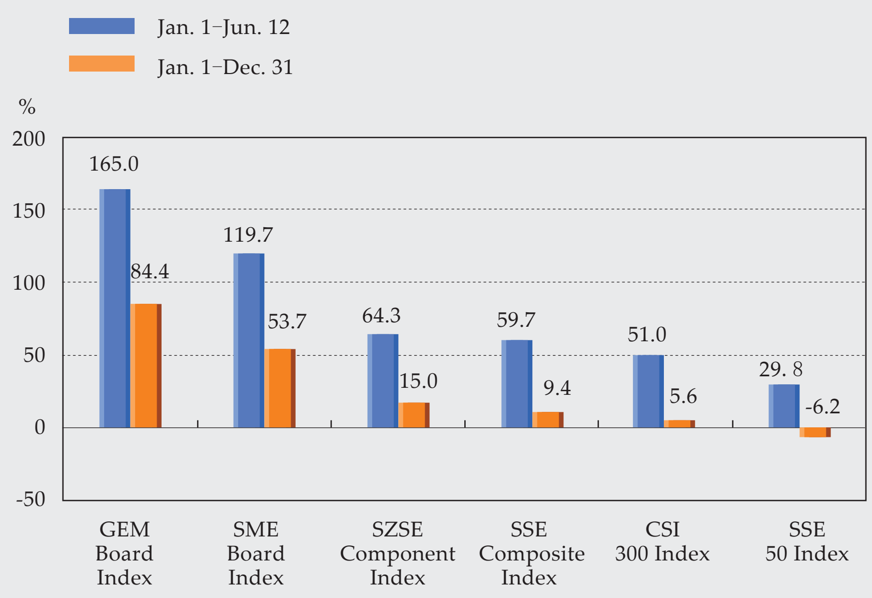
Source: Wind info.

Figure 4.3 Movement of Stock Indexes on the A-share Market in 2015



Source: Wind Info.

Figure 4.4 Growth of Stock Indexes on the A-share Market in 2015



Source: Wind info.

1.2.2 Stock market capitalization grew substantially with the float ratio declining

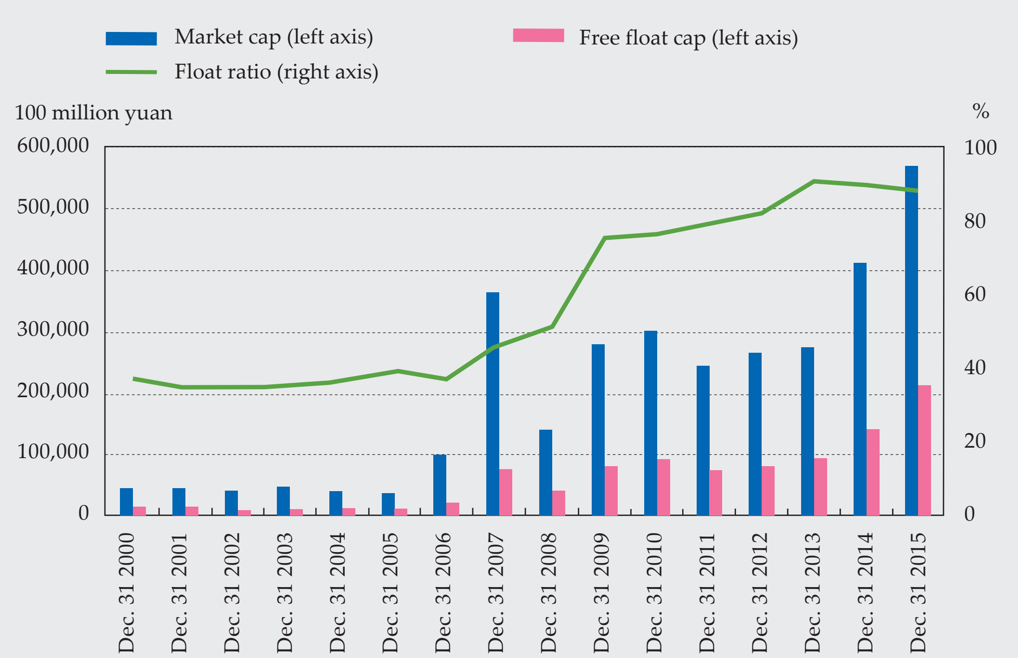
As of December 31, 2015, there had been 2,827 companies listed on Shanghai and Shenzhen markets, 214 more as compared with that at the end of the year earlier. The number of stocks reached 2,909, 213 more than that at end-2014, of which 2,808 were on the A-share market and 101 on the B-share market. The A-share market capitalization (cap) registered 56.7 trillion yuan, 16 trillion yuan higher than 2014, or a year-on-year growth rate of 38.3%. Free float cap of all A shares registered 21.3 trillion yuan, an increase of 7.1 trillion yuan or 50% higher as compared with the end of 2014. Issued equity shares grew 14.8% over end-2014 to 5 trillion yuan, of which float shares totaled 4.4 trillion yuan, a year-on-year increase of 12.9%, taking up 88% of the total. The float ratio dipped slightly as compared with end-2014.

1.2.3 Stock market boasted brisk trading and the turnover rate rose substantially

In 2015, the trading volume of the stock market rose significantly. As of end-December, the cumulative trading value of the A-share market hit 253.3 trillion yuan, a year-on-year increase of 243.4%. Specifically, the trading value of the main board, the SME board and the GEM board registered 175.7 trillion yuan, 49.4 trillion yuan and 28.4 trillion yuan, up 244.3%, 229.4% and 266.6% as compared with 2014 respectively.

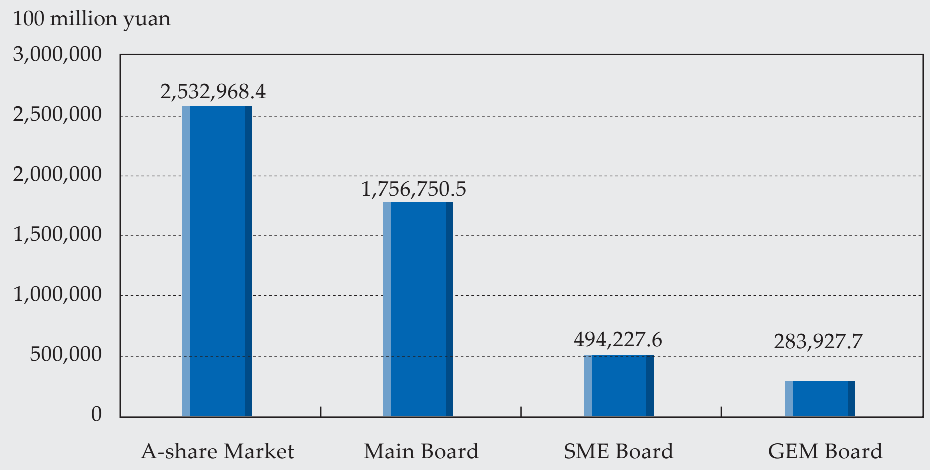
In 2015, the turnover rate of the stock trading rose substantially. The annual turnover rate of the A-share market stood at 434.5%. In particular, the turnover rate of SSE Composite Index, SSE 50 Index, CSI 300 Index, CSI 500 Index, GEB Index and the B-share market posted 384.4%, 222.4%, 316.1%, 586.7%, 525% and 37.7%, all of which were at a high level from the historic perspective.

Figure 4.5 Market Cap, Free Float Cap and Float Ratio of the A-share Market, 2000—2015



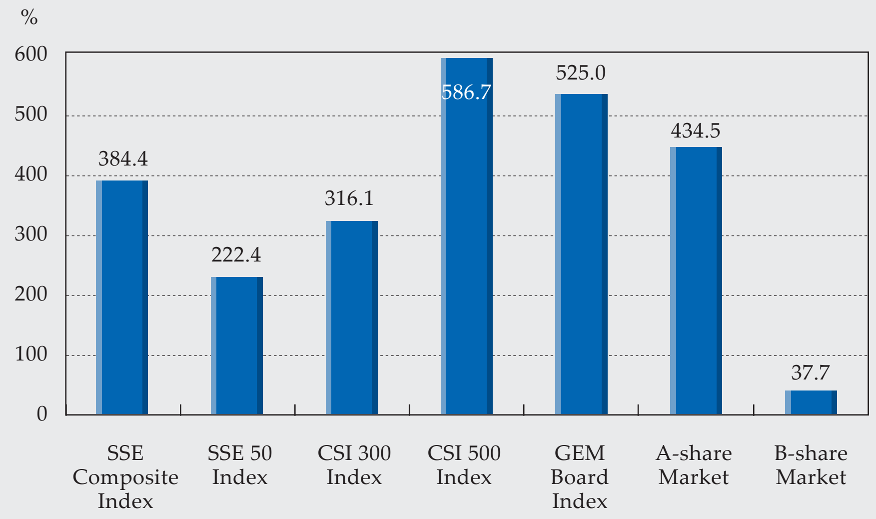
Source: Wind Info.

Figure 4.6 Trading Value of the A-share Market in 2015



Source: Wind Info.

Figure 4.7 Turnover Rates of Stocks in 2015



Source: Wind Info.

2. Main features of stock market operation

2.1 Market operation was highly volatile with the volatility of stock indexes rising substantially

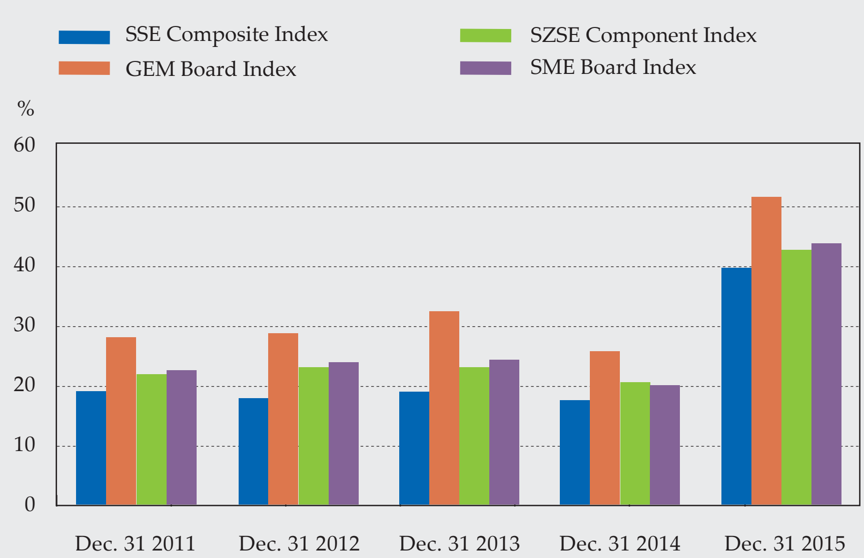
In 2015, the stock market operation was featured by high volatility with the volatility of stock indexes going up. Annual volatility of SSE Composite Index grew from 17.2% in 2014 to 38.8% in 2015, much more substantially than in the previous years. As listed companies on the GEM Board were mostly SMEs, whose performance was usually more volatile than their main board counterparts, annual volatility of the GEM Board Index was noticeably higher than that of SSE Composite Index. The annual volatility of the GEM Board Index skyrocketed to 50.7% from 25.1% in 2014. Similarly, annual volatility of the SZSE Component Index and the SME Board Index rose from 20.2% and 20.1% in 2014 to 42.3% and 43.2% in 2015 respectively, making historic new highs.

2.2 Market leverage ratio remained high and number of investors of various kinds continued to increase

In 2015, stock market transactions were characterized by high leverage ratio. Since the businesses of margin trading and short selling unveiled in March 2010, the number of newly-opened stock credit accounts has been on the rise. In April 2015, the monthly newly-opened stock credit accounts hit 410 thousand with the proportion of margin trading balance to float market cap reaching 4.1%. With the regulation on the business of margin trading and short selling strengthened, the number of newly-opened stock credit accounts dipped. As of end-2015, the proportion of margin trading balance to float market cap declined to 2.8%.

In 2015, the number of personal stock accounts on the A-share market increased further. As of end-June, the number of personal stock accounts stood at 230 million, an increase of 24.5% over

Figure 4.8 Annual Volatility of Stock Indexes, 2011—2015



Source: Wind Info.

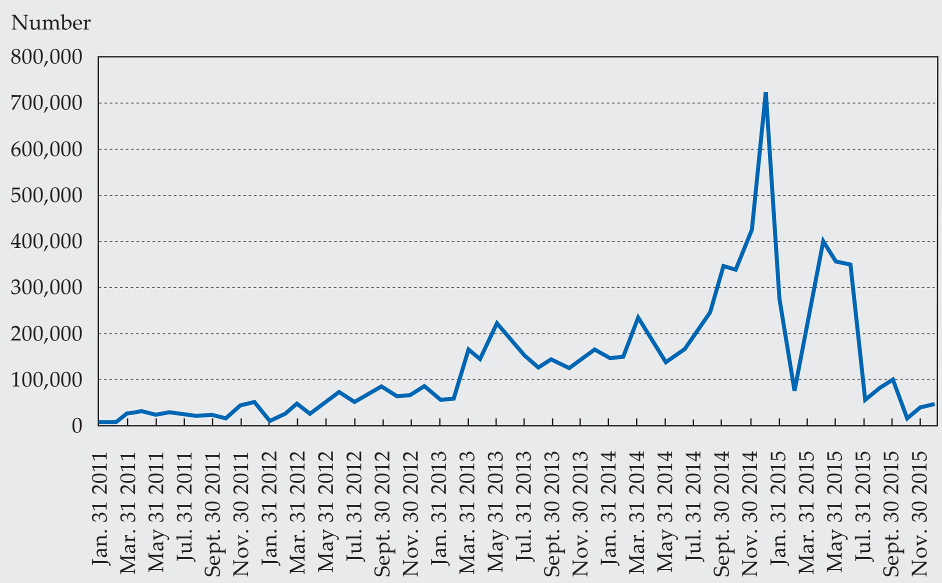
that in December 2014. From April 13, 2015, natural persons and institutional investors were allowed to open more than one stock accounts and closed-end fund accounts in line with their own real demands. Statistics were collected on the number of investors instead of the number of accounts to measure the change of the accounts. As of end-December, the number of personal investors on the A-share market hit 98.121 million, 13.107 million or 15.4% more than that at end-May.

In 2015, the stock market witnessed continuously increasing institutional investors. As of end-December, the number of stock accounts of special institutions and products amounted to 172 thousand, 32.1% more than at end-2014. To be specific, the accounts number of securities companies, funds and others institutions (including social security funds, pension funds, QFII, RQFII, insurance and trust) amounted to 92 thousand, 43 thousand, 37 thousand respectively. The accounts number of institutional investors of various kinds grew over end-2014, with the number of funds and RQFII witnessing the largest growth rate of 195.2% and 67.3% respectively.

2.3 Stocks of the manufacturing sector and financial sector traded briskly with the emerging industry taking the lead in annual growth rate

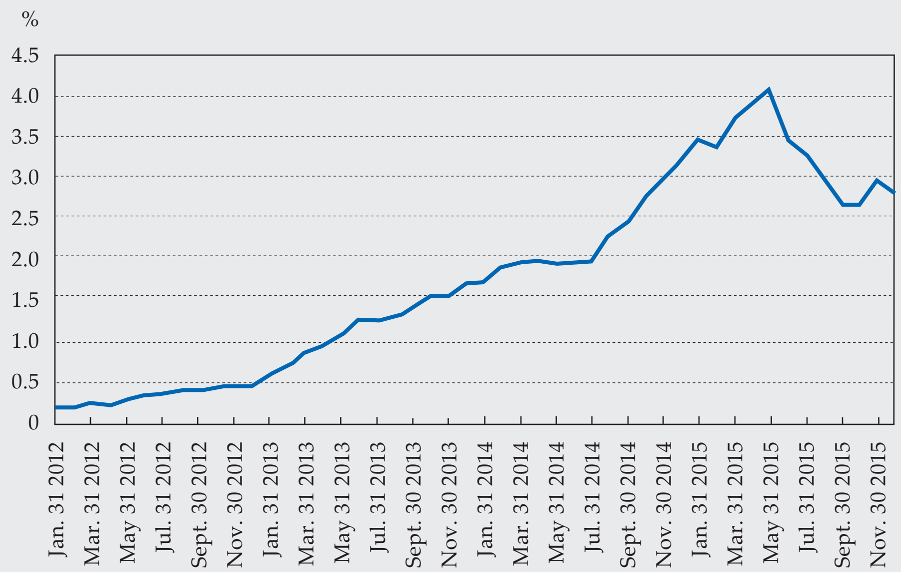
In terms of the trading value, the manufacturing sector was way ahead, followed by the financial sector. The trading value of stocks of securities companies and insurance companies witnessed substantial increase. As of end-December, the proportion of cumulative trading value of the manufacturing sector and the financial sector to the market total posted 50.2% and 11.7%, ranking No. 1 and No. 2 on the A-share market respectively. Stocks of the information technology industry, real estate industry and wholesale and retail industry also traded briskly.

Figure 4.9 Change of the Number of Newly-opened Stock Credit Accounts, 2011—2015



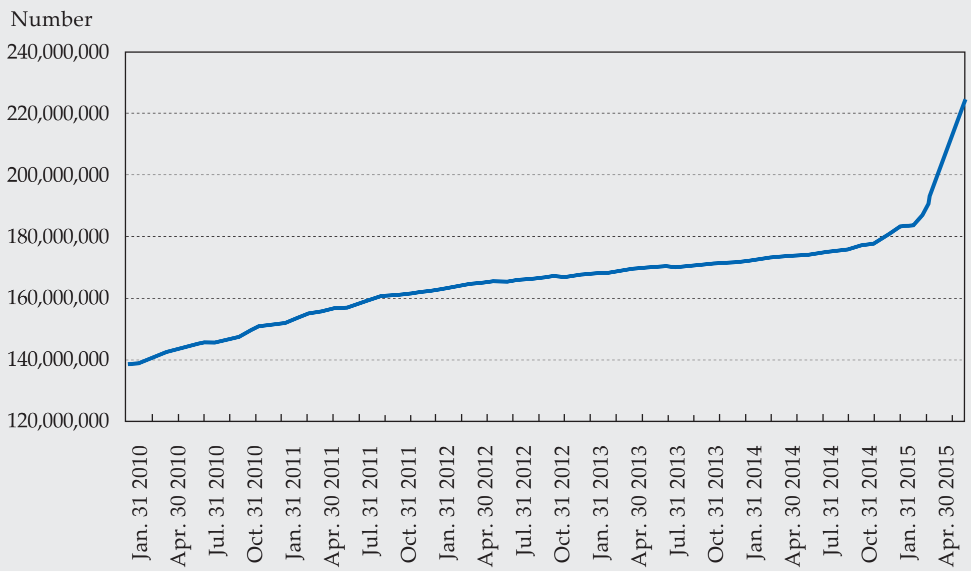
Source: Wind Info.

Figure 4.10 The Proportion of Margin Trading Balance to Float Market Cap, 2012—2015



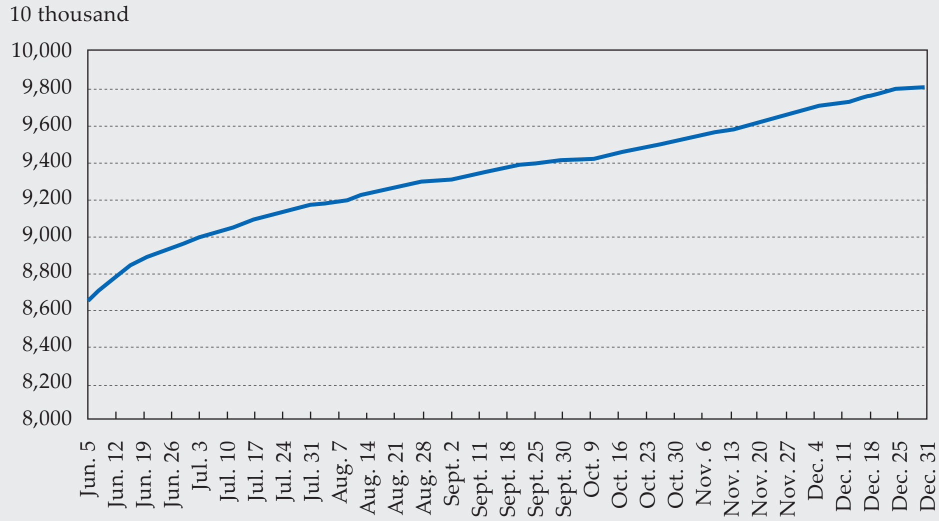
Source: Wind Info.

Figure 4.11 Number of Personal Stock Accounts on the A-share Market, 2010—2015



Source: Wind Info.

Figure 4.12 Number of Individual Investors on the A-share Market in 2015



Source: Wind Info.

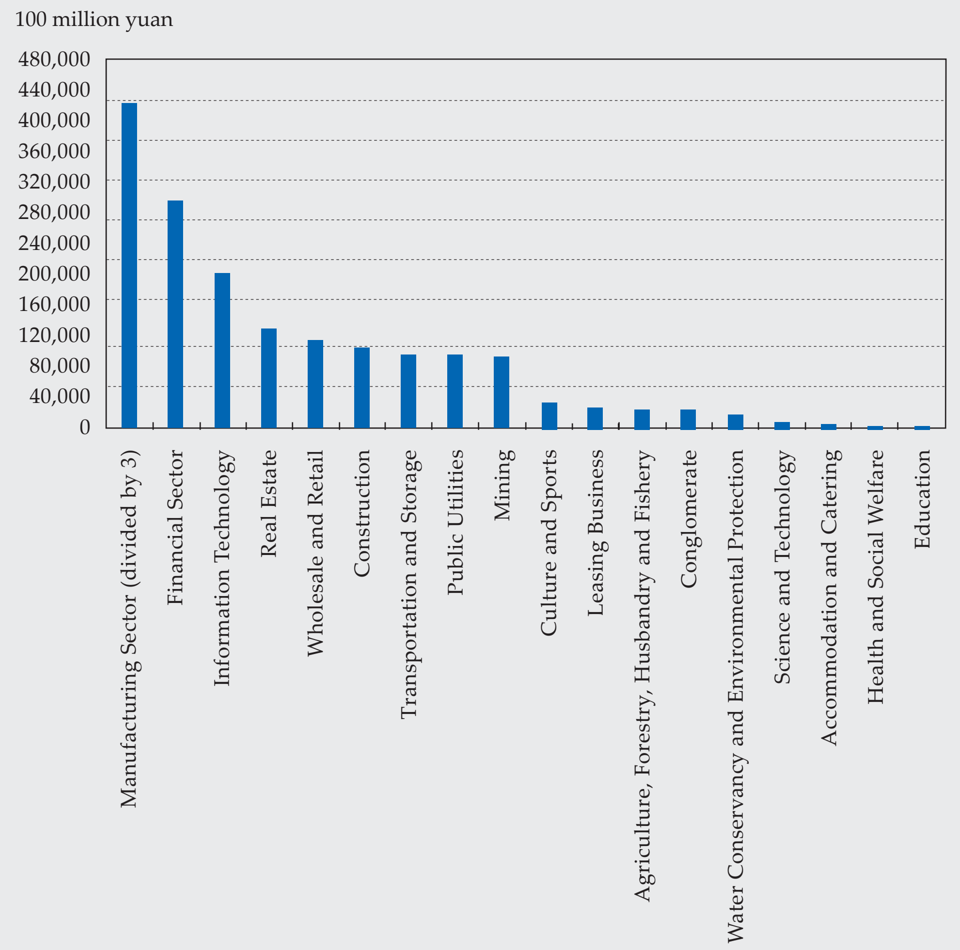
Table 4.1 Sector Composition of Market Cap on the A-share Market

Unit: Number, %

	December 2015	December 2014	YOY Change
Securities Companies	91,449	88,516	3.31%
Funds	42,896	14,530	195.22%
Other Institutions	37,344	26,952	38.56%
Including: Social Security Funds	310	254	22.05%
Pension Funds	6,835	6,184	10.53%
QFII	981	826	18.77%
RQFII	942	563	67.32%
Insurance	2,834	1,955	44.96%
Trust	25,442	17,170	48.18%
Total	171,689	129,998	32.07%

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

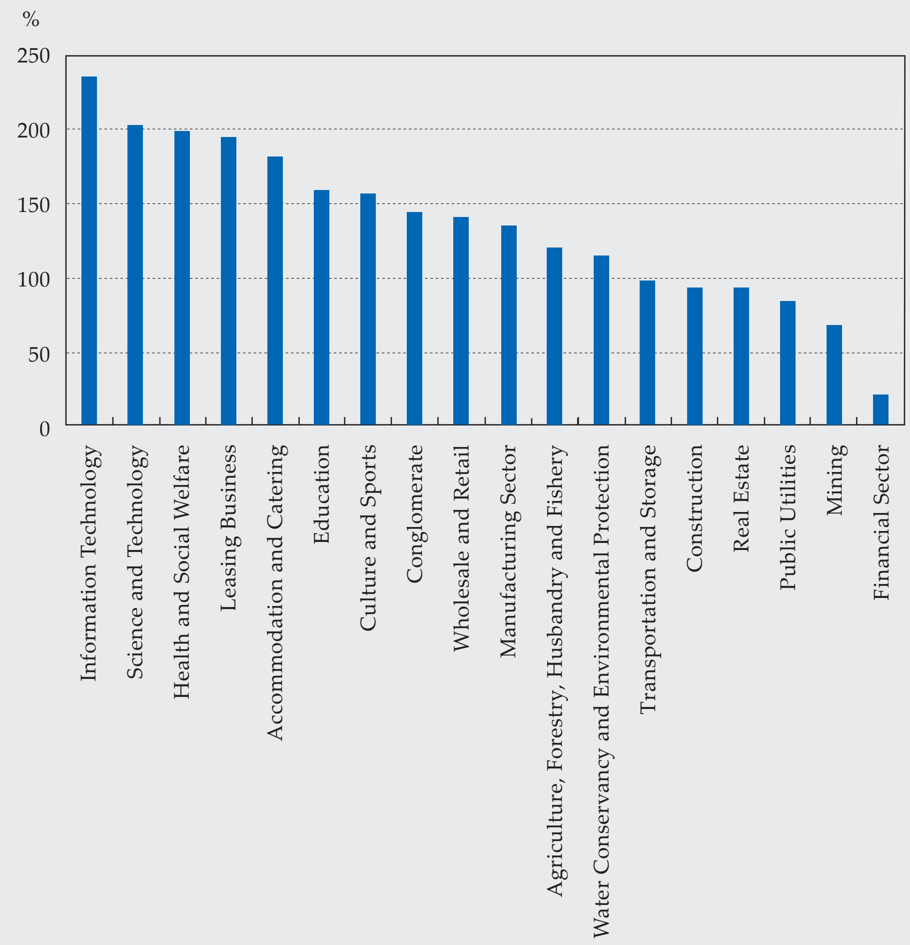
Figure 4.13 Trading Value of Stocks of Various Sectors in 2015 (in accordance with the classification of the China Securities Regulatory Commission)



Source: Wind Info.

In terms of the growth margin, the emerging industries took the lead. The Information technology industry made strong gains until the main board index reached its annual summit, with a growth margin of 234.5%, while the financial industry remained the weakest one, boasting a growth margin of merely 20.6%. As of December 31, the information technology industry boasted an annual growth rate of 107.4%◎making it the industry with the third largest growth margin, while the index of the financial industry dipped 7.3% as compared with the beginning of the year. Generally speaking, the booming high-end manufacturing

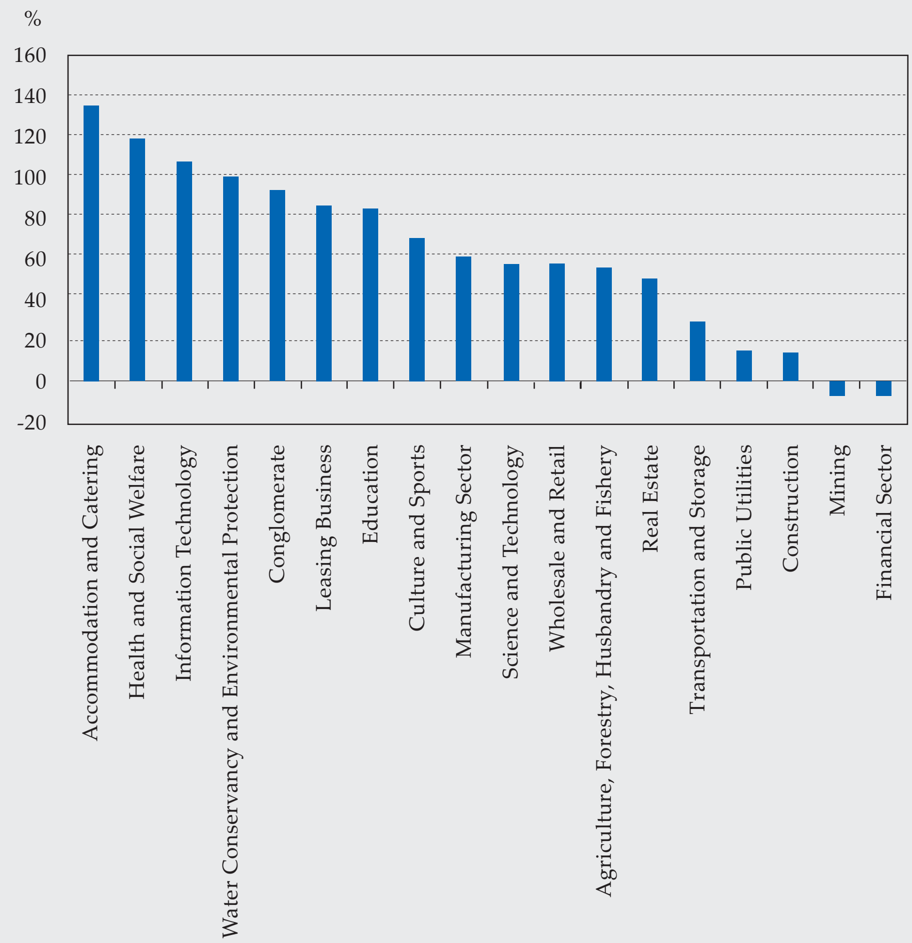
Figure 4.14 Growth Margin of Stocks of Various Industries (in accordance with the classification of the CSRC) (Jan.1, 2015- Jun. 12, 2015)



Source: Wind Info.

industry and high-quality services industry represented by the information technology industry and the health and social welfare industry boasted largest growth margin, marking the direction of future industrial transformation with good performance and leading growth margin. On the contrary, the mining industry and other traditional industries were plagued with overcapacity and sluggish performance and hence lagged far behind with regard to annual growth margin.

Figure 4.15 Growth Margin of Stocks of Various Industries (in accordance with the classification of the CSRC) (Jan.1, 2015- Dec. 31, 2015)



Source: Wind Info.

3. Institution and infrastructure building

3.1 Advancing the legal construction of the stock market

3.1.1 Steadily pushing forward the revision work of The Securities Law of the People's Republic of China

On April 20, the draft of New *Securities Law of the People's Republic of China* was submitted to the standing committee of the National People's Congress for the first instance. The revision and refinement of the basic law of the capital market made great breakthroughs in expanding the scope for securities and exploring the registration-based securities issuance system. To be specific, the concept of securities was redefined as representation of special property rights, or vouchers and investment contracts that could be evenly divided, transferable or tradable, which noticeably enlarged the concept's connotation and scope. Preparations for the registration-based stock issuance system were pushed forward steadily with supporting policies promulgated consecutively.

The expansion of the concept of securities and the advancement of registration-based stock issuance system reform will boost the further securitization of the basic assets and promote the development of the capital market so as to advance the efficiency of capital allocation and lift the productivity of the society as a whole. The revised the *Securities Law of the People's Republic of China* made reforms in loosening the restriction of publicly issuing stocks, regulating the sales of stocks by shareholders of listed companies, reinforcing the eligibility management of investors and investors protection, exploring the possibility of overseas companies getting listed on domestic market, researching on cash dividends scheme, setting up securities partnership, prohibiting cross-market transactions and insider-dealings, etc. Generally speaking, the draft New Securities Law established a regulation framework for the setup of a multi-layered capital market system and laid the foundation for registration-based stock issuance mechanism from the institutional perspective. Moreover, the draft also underpinned the supervisory ideology of streamlining government and delegating authorities and attached importance to the transformation from ex ante administration to concurrent and post administration.

3.1.2 Illegal practices were cracked down

In 2015, the securities authorities cracked down on the illegal practices on the stock market so as to effectively protect the rights of investors. The authorities also practiced the supervision and law enforcement ideology centered on information disclosure and intensified the fight against listed companies' illegal practices regarding information disclosure. A total of 61 cases were investigated involving illegal practices of information disclosure and securities and futures service institutions, a year-on-year increase of 53%. With regard to the urgent problems that influenced market order, stringent measures were adopted to combat market manipulation, particularly information manipulation, abuse of program trading and abuse of margin trading and short selling, etc. 71 cases were investigated in this regard, up 373% over the previous year. Another 24 cases were investigated involving illegally conducting securities businesses and illegal counseling in a bid to regulate market order. Malpractices including fabricating and transmitting false information, securities companies illegally opening accounts for clients on the New OTC Market and the illegal practices on private equity funds were also incorporated into the law enforcement scope. Radiation effects of individual case were brought into full play so as to regulate the information transmission on the capital market, regulate the operation of the New OTC Market, protect the legitimate rights of investors and combat the illegal practices on the market as a whole.

3.2 Improving a multi-layered stock market system

3.2.1 Development of the New OTC Market made great stride forward

With the unveiling of National Equities Exchange and Quotations (NEEQ) and further improvement of relevant supporting management mechanism, the New OTC Market witnesses leapfrog development. In 2015, a total of 3557 companies got listed on the market with a total financing amount of 121.617 billion yuan, a year-on-year increase of 193% and 821% respectively. On November 20, the CSRC promulgated the *Several Opinions on Further Promoting the Development of NEEQ*, stipulating the independent position of the New OTC market in the multi-layered capital market. The document also provided guidance on the framework on the internal tiered and differentiated framework of the market, strengthened the market's function of providing funding for SMEs particularly startups and innovative enterprises, reinforced the system of securities dealers and introduced diversified institutional investors and strengthened regulation, so as to achieve a balance between innovation and risk control. The document not only put forward countermeasures to tackle the existing problems but also made possible the follow-up innovation and long-term development. On November 24, the *Structural Plan of Listed Companies of NEEQ (Opinion-soliciting Version)* was published, putting forth the main idea, structural standard and implementation procedure, maintenance standard, procedural adjustment as well as differentiated institutional arrangement of the structural plan. Thus, the development of the new system would possibly be accelerated. At the same time, the New OTC market launched a number of financing instruments, including directional additional offering, share transfer, directional private debt, equity pledge financing, asset securitization and credit line increment for enterprises in collaboration with banks. On September 21, the *Guidelines on Preferred Stocks Business of the NEEQ (Tentative Draft)* was promulgated, making it possible for the debut of preferred stocks on the New OTC Market. Moreover, the NEEQ also formulated the *Key Points of Issuance Inspection, Format of Issuance Documents* and other regulation guidelines, providing market participants with a feasible business procedure, which will also help boost the efficiency of issuance and filing and enhance the financing service capabilities.

3.2.2 Construction of regional stock exchange market marched forward steadily

Regional stock exchange market is the foundation of a multi-layered capital market system and constitutes a fundamental framework of an OTC market together with the NEEQ. On June 26, the CSRC promulgated the *Tentative Administrative Measures on Regional Stock Exchange Market* (Opinion-soliciting Version) stipulating the market's position and regulatory system from the macro perspective and regulating the market functions, regulatory bottom line and supporting measures from the micro perspective. According to the Tentative Measures, the market position of regional stock exchange market is described as a privately-placed securities market that provides facilities and services for the issuance, transfer and other relevant activities of privately-placed securities of micro small and medium-sized enterprises in provincial-level administrative regions where the market's operating bodies are located. The definition differentiates the regional stock exchange market from the A-share market and the New OTC market so as to realize the markets' functional complementation and coordinated development and contribute to a multi-layered capital market. As of end-December 2015, a total of 37 established regional stock exchange markets had witnessed the listing of 3,375 companies and participation of 41.5 thousand companies and boasted an aggregate financing of 433.156 billion yuan. Shanghai Equity Exchange (SEE) is the most featured regional stock exchange market. On November 20, 2015, the SEE got approval to establish the stock transfer system for science and technology as well as innovative enterprises. As an integral part of a multi-layered capital market, the SEE will play a vital role in boosting the construction of Shanghai into a science and technology and innovative center with global appeal, assisting mass entrepreneurship and innovation and granting access for science and technology enterprises and innovative micro small and medium-sized enterprises to the capital market.

3.3 Deepening market-based reform of fundamental institutions

3.3.1 Registration-based IPO system was advanced steadily

From the institutional perspective, Securities Law of the People's Republic of China, which is currently being revised, will made active exploration into the securities issuance and information disclosure. Technically, the CSRC has vowed to boost the registration-based IPO system from time to time and the stock exchanges are also actively involved in lowering market access threshold and improving the market exit mechanism. On November 6, the CSRC solicited opinions from the public with regard to a number of documents, including the *Administrative Measures on Securities Issuance and Underwriting, Administrative Measures on IPO and Listing, Administrative Measures on IPOs* and the *Listing on the GEM Board*, etc. The CSRC promulgated the *Opinions on Further Boosting the Reform of IPO System* on November 30, pushing forward the IPO system reform. On December 9, the State Council reviewed and approved the *Decisions on Authorizing the State Council to Apply Relevant Regulations in Securities Law of the People's Republic of China to Implement the IPO Reform (Draft)*, authorizing Shanghai Stock Exchange and Shenzhen Stock Exchange to implement the reform to boost registration-based IPO system. The reform measures will lay foundation for the reform of the IPO system.

3.3.2 Merger & acquisition (M&A) and reorganization policies underwent further improvement

On February 5, the State Council promulgated the *Administrative Measures on Significant Asset Restructuring of Listed Companies*, encouraging lawfully established investment institutions, including M&A funds, equity investment funds, venture capital funds and industrial investment funds, to take part in the M&A and asset restructuring of listed companies. The promulgation of the Administrative Measures means the government attaches importance to the M&A and reorganization activities from the state perspective and bolsters the market-based reform of the M&A and reorganization activities with a number of supporting policies, bringing more opportunities to equity investment funds. In order to bring into full play the role of enterprises in M&A and reorganization activities, the State Council released the *Opinions on Further Optimizing the Market Environment for M&A and Reorganization of Enterprises* at the end of 2015, putting forth a number of opinions, including narrowing down the scope for government approval, simplifying the approval procedures, developing M&A loans, putting the capital market in an important position, encouraging the M&A and reorganization of big enterprises, guiding the cross-border M&A and reorganization activities of enterprises and removing the barriers in trans-regional M&A and reorganization. At the moment, the approval procedures for M&A and reorganization of listed companies, except backdoor listing, have been eliminated, while relevant payment and pricing are more flexible, all of which will effectively reduce the costs of M&A and reorganization and promote the market-based development of this market.

3.3.3 Supporting policies regarding delisting were revised and adjusted

In order to implement the delisting policies and improve the reform of delisting mechanism, Shanghai Stock Exchange and Shenzhen Stock Exchange formulated the *Administrative Regulations on Relisting*, stipulating the principle of applying the same indexes to study the feasibility of relisting as with the IPO. On one hand, work needs to be done to differentiate voluntary delisting and mandatory delisting. In terms of the relisting applications made by companies that have been mandatorily delisted due to serious violations of law, strict conditions are made that need to be met. On the other hand, as for the relisting applications submitted by companies that have been voluntarily delisted or delisted due to wrongful verdict for serious violation of law, simplified or differentiated arrangements have been made with regard to documents that need to be submitted, inspection procedures and trading arrangements after being relisted. Shanghai Stock Exchange and Shenzhen Stock Exchange also adjusted the *Administrative Bylaws on Businesses of Delisted Companies and Interim Regulations on Stock Trading of Risk Warning Board*, regulating the stock trading and operations of companies that receive risk warning or get delisted.

3.3.4 Information disclosure was pushed forward in an all-round manner

In terms of information disclosure, the CSRC continued to push forward the following work: First, the CSRC publicized the regulatory standards regarding the implementation of accounting codes, internal control regulation and information disclosure of the finance by means of releasing the annual regulatory report on accounting so as to encourage listed companies to further improve information disclosure. Second, in terms of the existing problems, the CSRC continued to make investigations in its daily regulation and themed inspection with follow-up measures. Third, efforts were also made to improve the multi-layered information disclosure system and explore the construction and implementation of an effective information disclosure system.

3.3.5 Restriction of one securities account per person was eliminated

On April 12, China Securities Depository and Clearing Corporation Limited (CSDC) promulgated the *Notice on Eliminating the Restriction on Only One A-share Securities Account for One Natural Person*, abandoning the previous restriction on natural persons opening securities accounts. Natural persons were entitled to opening more than one securities account and exchange-traded closed-end fund account in both Shanghai and Shenzhen stock exchanges according to their own demands. As far as investors concerned, they could choose a securities company with low commission charge or comprehensive service without any trouble in closing the previous accounts. As for securities companies, with the relaxation of the previous restriction on the number of securities accounts one person could open, securities companies with good performance could reap more benefits with enhanced competitive edge.

3.3.6 Risk management of margin trading and short selling was strengthened

In the second half of 2015, deleveraging swept over the A-share market. Apart from cleaning up stock financing, the regulatory authorities also enhanced the risk control of margin trading and short selling. On July 1, 2015, the CSRC promulgated the *Administrative Regulations on Margin Trading and Short Selling of Securities Companies* (CSRC Decree No. 117), enhancing the effectiveness and resilience of the business. In the meanwhile, both Shanghai Stock Exchange and Shenzhen Stock Exchange released the administrative bylaws on the same day, further regulating the business of margin trading and short selling in terms of business procedures, underlying securities, margin and collaterals, information disclosure and reporting as well as risk control. The two exchanges revised the Administrative Bylaws later, stipulating that the deadline for returning the stocks after selling them first directly or by purchasing the stocks elsewhere would be calculated from the next trading day and the margin ratio for purchasing stocks would be raised from 50% to 100%. Therefore, the risks arising from margin trading and short selling was strictly controlled.

3.4 Advancing the innovation and opening-up of the market

3.4.1 Stock options were officially unveiled.

On January 9, the CSRC promulgated the *Administrative Regulations on Pilot Stock Option Transactions* and *Guidelines on Securities and Futures Institutions Taking Part in the Pilot Transactions of Stock Options*, authorizing Shanghai Stock Exchange to launch the pilot program on SSE 50ETF option transactions. On February 9, the SSE 50 ETF option was officially unveiled in Shanghai Stock Exchange. The launch of SSE 50 ETF option not only makes a new instrument for hedging, provides liquidity on the market, promotes the trading of SSE 50 ETF and the attractiveness of heavyweight stocks and blue chips, but also enriches the portfolio of investors together with the stock index futures. However, due to the high entrance barrier of the option market and the sharp fluctuation of the securities market across the year, the SSE 50 ETF options transactions remained stable and less brisk than expected.

3.4.2 From Shanghai-Hong Kong Stock Connect Program to mutual recognition of funds domiciled both in Shanghai and Hong Kong

Since its unveiling more than one year ago, Shanghai-Hong Kong Stock Connect Program has enjoyed stable operation. According to the statistics, utilized quota of Shanghai-listed stocks totaled 121 billion yuan, accounting for 40% of the annual total, while the cumulative trading value hit 1.538 trillion yuan with a daily trading value of 6.7 billion yuan. As for Hong Kong-listed stocks, utilized quota approximated 92.4 billion yuan, or 37% of the total of the year, and the cumulative trading value and daily average trading value amounted to 742 billion HK dollars and 3.3 billion HK dollars respectively. On the basis of the stable performance of the program, the CSRC and Hong Kong Securities and Futures Commission agreed on the implementation principles, “mutual recognition” mode and operation procedure regarding to allowing funds mutually recognized in both markets on May 22. A Memorandum of Understanding (MOU) on regulatory cooperation was signed by the two sides. The *Interim Administrative Measures on Mutual Recognition of Funds in Hong Kong* and *Notice on Mutual Recognition of Funds in Mainland and Hong Kong* were formulated, stipulating the qualifications, application procedures, operation requirements and regulatory arrangement of mutual recognized funds. On November 6, the PBC and the State Administration of Foreign Exchange (SAFE) promulgated the *Instructions on Capital Management for Cross-border Issuance and Sales of Securities and Investment Funds in Mainland and Hong Kong*, specifying the bylaws for the mutual recognition of publicly placed securities and investment funds in both mainland and Hong Kong. On December 18, the CSRC approved the registration of 3 Hong Kong-registered mutually recognized funds after inspection, while the Hong Kong Securities and Futures Commission endorsed the registration of 4 mainland-registered mutually recognized funds. The official registration of mutually recognized funds on either side of mainland and Hong Kong not only marks an important milestone in the mutual opening-up of the funds market in both mainland and Hong Kong but also makes an integral part in the opening-up of the domestic capital market. Mutual recognition of funds domiciled on both sides of the border will do good to enhancing the connection of the domestic and Hong Kong capital markets, reinforcing the exchange and cooperation of the asset management sectors of the mainland and Hong Kong, providing more diversified funds investment products for investors on both sides, accelerating the setup of the regulatory standards of the two sides and advancing the integrated development of the asset management sectors in Asia.

3.4.3 The Scope for RMB Qualified Foreign Institutional Investors (RQFIIs) was expanded

As of end-2015, the scope for the pilot program of RQFIIs had been expanded to cover 16 countries and regions with a cumulative investment quota of 1210 billion yuan. Hong Kong SAR got an investment quota of 200 billion yuan, the highest among the 16 countries and regions. In a bid to promote the cross-border use of RMB and the opening-up of China's capital market, the pilot program of RQFIIs was launched. As an important investment channel, RQFIIs harvested good results in facilitating qualified foreign institutional investors' investment of overseas RMB funds in domestic securities market. The further expansion of the pilot program of RQFIIs indicates the steadfast opening-up of China's securities market and, in the meanwhile, lays a solid foundation for the reform of recording system of RQFIIs.

3.4.4 Cross-border cooperation was advanced further

In May 2015, Shanghai Stock Exchange, China Financial Futures Exchange and Deutsche Boerse AG entered into a strategic cooperation agreement on establishing an offshore RMB financial instruments trading platform with a shareholding ratio of 40%, 20% and 40% respectively. The trading platform, China Europe International Exchange, is aimed at the research & development (R&D) and listing of securities and derivatives denominated in offshore RMB. The establishment of the trading platform is another important step forward in implementing the two-way opening-up of the capital market and RMB internationalization as well as the "One Belt and One Road" Initiative by Shanghai Stock Exchange and China Financial Futures Exchange after the launch of Shanghai-Hong Kong Stock Connect Program. On November 18, 2015, China Europe International Exchange was officially unveiled in Frankfurt, Germany. A number of spot products denominated in RMB get listed in the exchange, including two ETFs and one RMB bond. Derivatives may also be incorporated in the portfolio in the future. The establishment of China Europe International Exchange marks the further opening-up of China's capital market. It will make a center for offshore RMB trading and pricing in Europe, satisfy international investors' demand for investment and funding as well as risk management of RMB assets and contribute to RMB internationalization.

4. Stock Market Development Outlook

A multi-layered equity market will be developed. Efforts will be made to study and formulate the institutional arrangement for the reform of registration-based stock issuance regime, preparing for the kicking-off of the reform. The main board of the securities exchange will be further reinforced and vitality of the blue chip market will be enhanced. Efforts will also be made to develop the SME board and deepen the reform of the GEM board. The strategic emerging industries board will be established on the Shanghai Stock Exchange in order to expand market depth and enhance support for strategic and emerging industries of a certain size that have passed the startup stage. Work will be done to improve the institutional arrangements for the New OTC Market, optimize the small-amount, fast, flexible and diversified investment and funding mechanism and enhance the support for innovative, entrepreneurial and growth micro small and medium-sized enterprises. Development of regional equity market will be regulated and efforts were made to explore the establishment of the cooperation mechanism between the regional equity market and the new OTC market so as to encourage privately equity funds with registration recording and regulated operation to take part in regional equity market. The pilot program of equity crowd funding will be launched with issuance mode in line with the requirements of equity crowd funding, i.e. the mass market, small amount and publicity.

The market-based reform of the M&A and reorganization will be further advanced. Stepped-up efforts will be made to improve the M&A and reorganization mechanism of the capital market, eliminate the barriers of cross-sector, cross-region and cross-ownership M&A and reorganization and support listed companies especially state-controlled listed companies to be better and stronger by means of assets injection, introducing strategic investors, consolidation by merger and overall listing in an attempt to better support economic restructuring and industrial upgrading. The market-based reform of M&A and reorganization will be further deepened. Work will be done to eliminate or simplify the administrative approval of M&A and reorganization of listed companies. Research will be made into the negotiation-based share pricing regime for M&A and reorganization. The scope for parallel examination and approval will be further expanded and sub sector examination will be improved so as to enhance the examination efficiency. Supporting measures will be introduced to encourage the innovation of M&A and reorganization, enrich the payment instruments and explore the administrative bylaws on issuance of preferred stocks and directed issuance of convertible bonds as the payment methods in M&A and reorganization. Close attention will be paid to the potential risks, problems and conflicts that might be incurred in M&A and reorganization so as to make emergency response plans and take prompt measures.

The two-way opening-up of the stock market will be promoted. The funding channels for domestic enterprises to get listed on the overseas market will be broadened. Research will be made to promote complete circulation of H shares. The QFII and RQFII systems will be improved. Efforts will also be made in promoting the A shares to be incorporated in globally renowned indexes and encouraging overseas sovereign wealth funds, pension funds, passive index funds and other long-term funds to increase their investment on the domestic market. Shenzhen-Hong Kong Stock Connect Program will be kicked off, while Shanghai-Hong Kong Stock Connect Program will be pushed forward. Investigations will be made into the possibility of the Launch of Shanghai-London Stock Connect Program. Pilot programs for opening-up and innovation will be launched in Shanghai Pilot Free Trade Zone (FTZ). The Mutual recognition of funds in both mainland and Hong Kong will be further advanced and the registration of Hong Kong-registered mutually recognized funds on the mainland market will be pushed forward steadily. Work will also be done to promote the cross-border regulatory exchange and cooperation.

Box 4 The Burgeoning Development of the New OTC Market in 2015

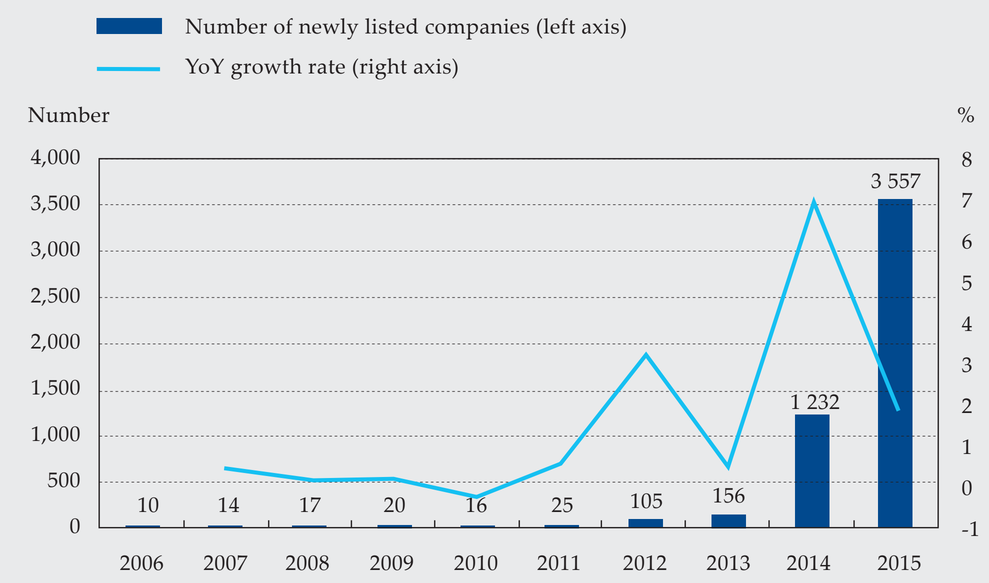
With the promulgation of the Decision on Problems of the National Equities Exchange and Quotations (State Council Document〔2013〕No.49) On December 14, 2013, the New OTC Market has enjoyed rapid development since 2014. In 2015, the New OTC Market witnessed increasingly burgeoning development with the number of listed companies on the market far outnumbering that on the A share market. With the release of supporting institutional arrangements, the New OTC Market will witness improved market rules and its market function will be brought into full play. The Market's role in supporting the development of innovative, entrepreneurial and growth micro small and medium-sized enterprises will be further enhanced.

1. Size of the New OTC Market enjoyed fast expansion and market functions made a leap forward

Listed companies on the New OTC Marker, with the total number far exceeding that on the A share market, are concentrated on the Telecommunication, Media and Technology (TMT) industries. As of December 31, 2015, a total of 5129 listed companies had issued 296 billion stocks, among which 102.4 billion were floating stocks. The number of listed companies is expected to reach 8000 in 2016. In terms of industrial distribution, the listed companies were mainly in TMT and machinery and equipment industries with the companies in the new service, medicine and biology industries taking the lion's share of the market while the market share of the financial industry witnessed a substantial increase.

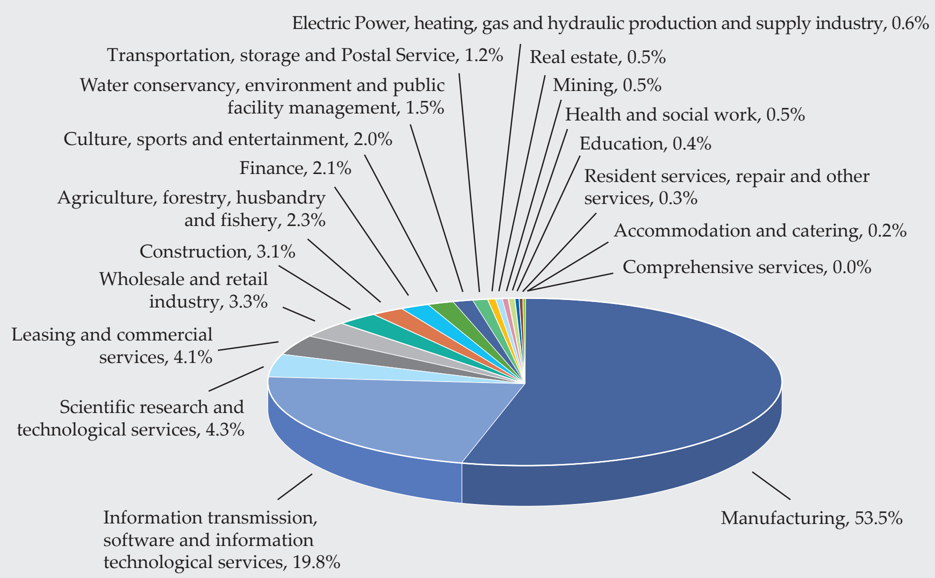
Market functions took a leap forward. In terms of liquidity, the market's monthly trading value exceeded 3 billion yuan in December 2014, while the trading value in the first week of March 2015 hit 3.2 billion yuan. The daily trading value amounted to 3.75 billion yuan on April 3 and peaked at 5.23 billion yuan on April 7. As of December 31, the cumulative trading value stood at 191.1 billion yuan, almost 15 times that in 2014. As for stock financing scale, as of December 31, 2015, the annual stock financing scale of the New OTC Market amounted to 127.3 billion yuan in 2015, more than 9 times that of the previous year. As for valuation, the static PE ratio of the market climbed from less than 20 times at the beginning of 2014 to approximately 31 times at end-2015. Moreover, the M&A and significant

Figure 4.16 Number of Listed Companies on the New OTC Market from 2006 to 2015



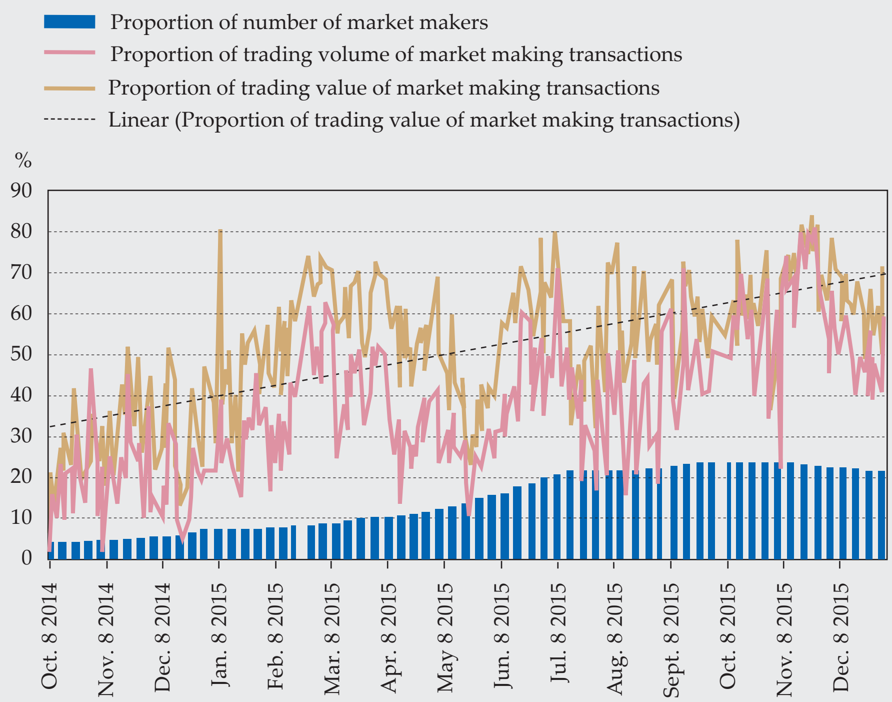
Source: NEEQ and Shenwan Hongyuan Securities Research.

Figure 4.17 Industrial Distribution of the New OTC Market



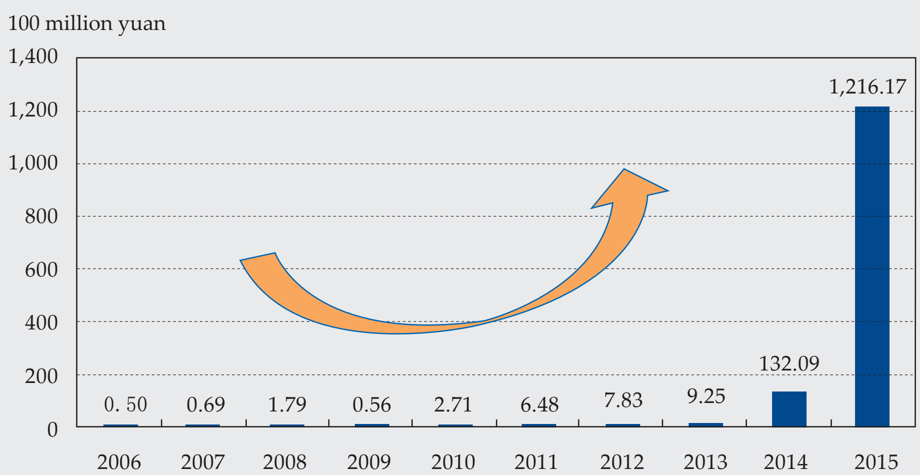
Source: NEEQ and Shenwan Hongyuan Securities Research.

Figure 4.18 Upward Movement of Proportion of Market Making Transactions



Source: NEEQ and Shenwan Hongyuan Securities Research.

Figure 4.19 Enhanced Market Function of Fund Raising



Source: NEEQ and Shenwan Hongyuan Securities Research.

asset restructuring activities were increasingly brisk on the market.

2. Dividends of the market-based New OTC Market will be unleashed gradually

At the moment, the New OTC Market is at the fledgling stage, a far cry from a mature market, which is embodied in the following three aspects.

First, institutional construction needs to be improved. Up till now, the institutional framework of the market has been established, including the listing, trading, issuance, investors, M&A, asset restructuring, preferred stocks and regulation. However, a number of fundamental institutional arrangements, including the delisting and market exit mechanism, are still missing. Some institutional arrangements are in fact impractical, taking non market-based investors eligibility management system and price bidding system as an example. There are still some institutional arrangements that are to be further optimized, including the market making system, the strengthening of corporate governance and information disclosure.

Second, the market functions need to be brought into full play. Market functions of the New OTC Market have made a great stride forward as compared with period prior to 2014, although work still need to be done to bring market functions into full play. The constraints to the current market mechanism are mainly insufficient market liquidity and lack of diversified investors, which will negatively influence the market function of price discovery and restrict fund raising and M&A activities.

Third, the market's role of supporting the development of real economy needs to be further enhanced. The New OTC Market is the most inclusive capital market in China with privately-owned SMEs taking up 90% of the market. With more and more financial institutions getting access to the market, 34% of the market funds have been flowing into these companies ever since 2015. Although these financial institutions are SMEs in the financial sector, they become market giants as compared with other companies on the market. In 2015, among the top 15 companies that attracted the most funds, only two were non-financial institutions. Therefore, the market's role of supporting the development of the real economy, especially high-tech innovative SMEs waits to be reinforced.

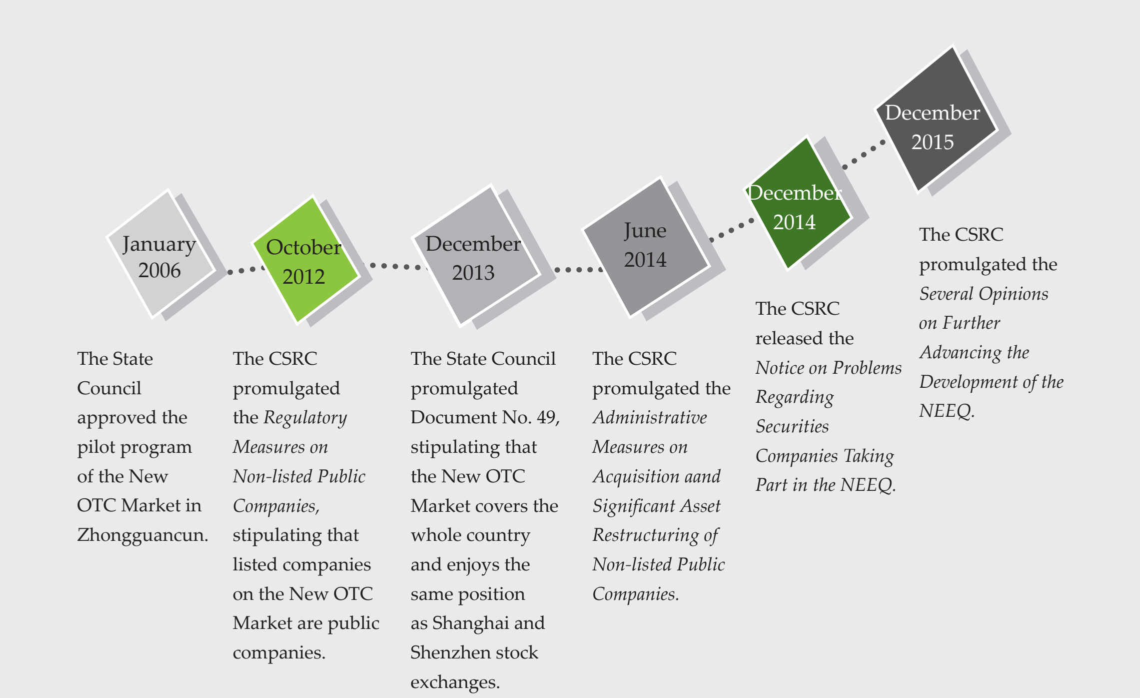
The advantages of the New OTC Market are reflected in maximum marketization within a regulated system. Therefore, the unleashing of dividends of the market will be a market-based process and asks for more institutional guarantee. First, efforts need to be made to improve fundamental institutional arrangements, including corporate governance, information disclosure and market exit. Second, the trading system needs to be enhanced, which includes the setup of a bulk trading platform in after hours of contract transfer or market making transfer and regulation and supervision of trading rules. Third, the market making system need to be strengthened by means of positive incentive mechanism. An assessment system of market makers will be set up, encouraging market makers to provide liquidity and market valuation in a market-based manner. Both the assessment system and the operation data of market markers will be publicized so as to implement the market-

based "survival of the fittest". Forth, an investor system comprising of diversified institutional investors will be established while importance will also be attached to introducing and culturing qualified individual investors. Fifth, diversified financial instruments will be brought into the market, including the kicking-off of the transfer platform for preferred stocks, privately-placed bonds, convertible bonds and equity pledged repos.

3. The New OTC market is expected to become an independent comprehensive market representative of the new economy

The New OTC Market has been mapped into a national strategy and becomes the propeller of economic transformation and a test field for financial reforms. Therefore, the New OTC Market is the real GEM board. First, the State Council document No. [49] stipulates that role of the NEEQ is to serve the development of innovative, entrepreneurial and growth micro small and medium-sized enterprises. Therefore, the market will become the propeller for deepening the reforms. Besides, the scope for equity fundraising has been expanded to cover micro small and medium-sized enterprises, making the market a real incubator for business startups. Second, due to its light historic burden, the New OTC Market is entitled to the mission of the reform pathfinder, exploring the market's decisive

Figure 4.20 Evolution of policies of the New OTC Market

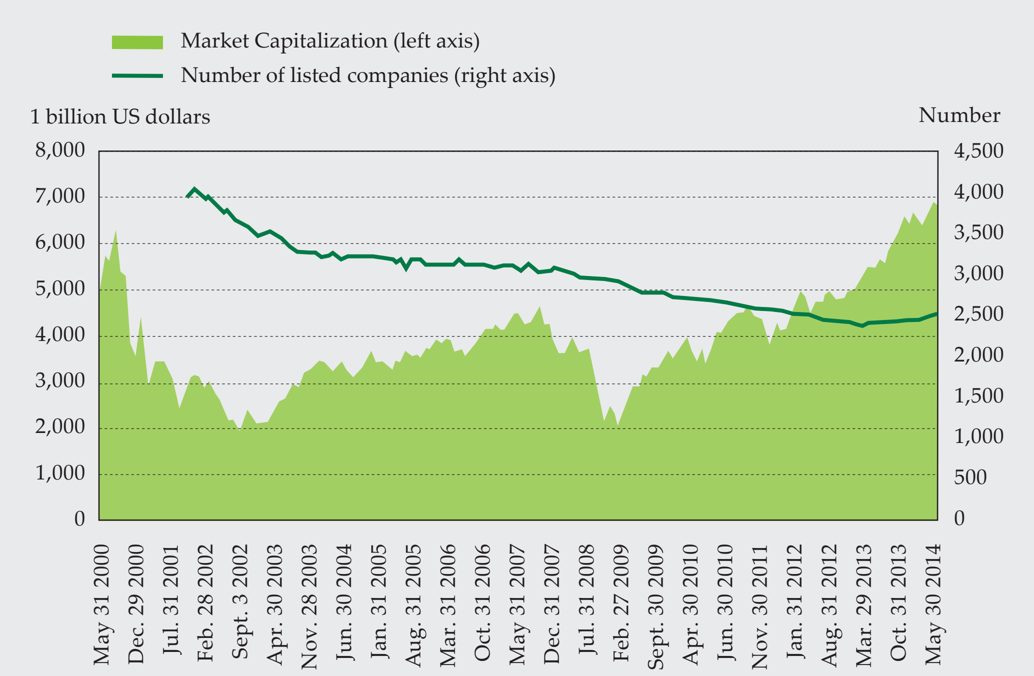


Source: NEEQ and Shenwan Hongyuan Securities Research.

role in resource allocation. Therefore, not only the market's listed companies are innovative and entrepreneurial companies, but the whole system is also in a process of innovation, including the setup of a multi-layered market system, registration-based IPO system, market switching, market makers, incorporation of exchanges and regulatory transformation, etc. The market has become a real test field for deepening reforms.

The New OTC Market, like its US Counterpart the NASDAQ, is aimed at building itself into an independent comprehensive market. First, historically, both the New OTC Market and the NASDAQ were born in the aftermaths of crisis, when new technologies mushroomed, passion for innovation heated up and the entrepreneurial culture thrived. Second, the New OTC Market, from the very beginning, is characterized with the features of registration-based IPO system, low entrance barrier and high inclusiveness. The market's transactions are under the charge of host brokerages while value judgment is at the discretion of the market, all of which is in line with the basic principles and spirits of the NASDAQ. Third, the market making mechanism and layered structure, two of the most prominent characteristics featuring the NASDAQ, are also launched on the New OTC Market on a pilot basis. Forth, the New OTC Market originated from Zhongguancun, as the NASDAQ from the Silicon Valley.

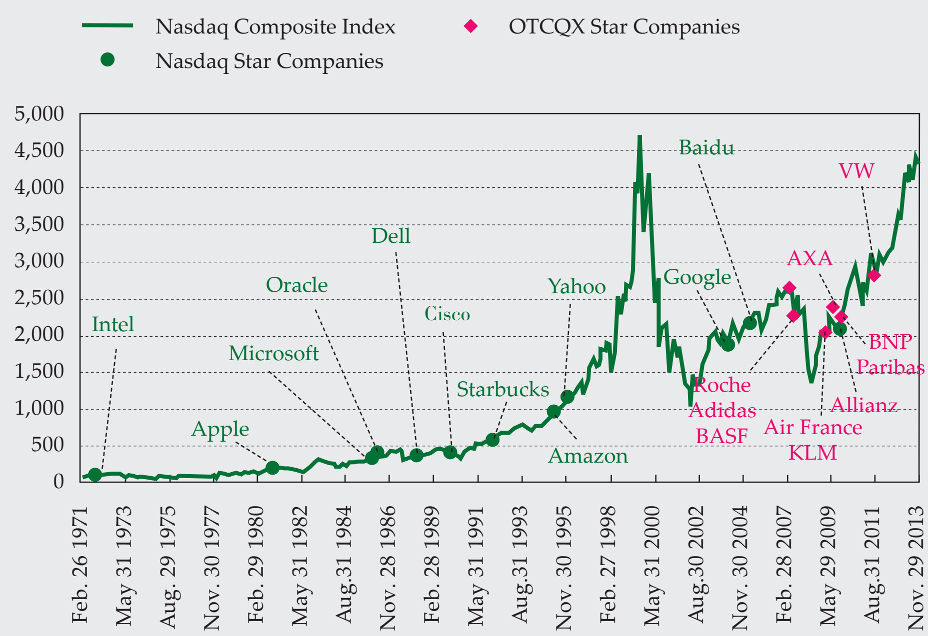
Figure 4.21 Evolution of the NASDAQ



Source: www.nasdaq.com and Shenwan Hongyuan Securities Research.

Therefore, both the institution and the system are in a continuous process of innovation and adjustment, which also maintains vitality of the whole system. On November 20, the CSRC promulgated Several Opinions on Further Advancing the Development of the NEEQ, stipulating that the New OTC Market is an independent market and listing on the market is not an interim arrangement for switching to other markets.

Figure 4.22 Star Companies on the OTC Market



Source: www.nasdaq.com and Shenwan Hongyuan Securities Research.

Part V Foreign Exchange Market

RMB exchange rate remained generally stable in 2015, and market forces gained strength in playing a decisive role. Foreign exchange (FX) market saw brisk trading and improved participant structure. Reforms on market operation and management mechanism were pushed forward in due time, together with the progress of market-oriented exchange rate regime reform. Against the backdrop of a changing and growingly interconnected global market, China's foreign exchange market will step up efforts on risk prevention, pre-warning and management, while striving for market-oriented transformation. Also, measures will be taken to further the reform of market mechanism and improvement on market infrastructure, as so to deepen market depth and breadth.

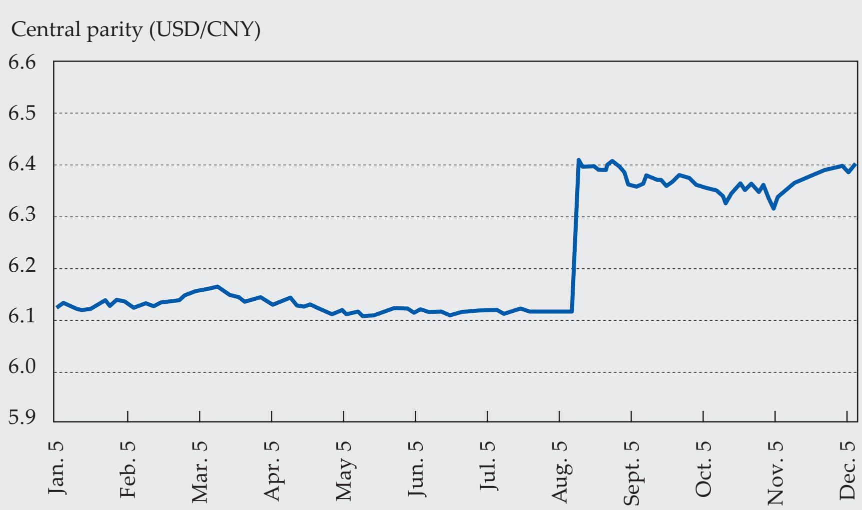
I. FX market performance

1.1 The RMB/FX exchange rate

1.1.1 The RMB/FX central parity and reference rate

The RMB/FX central parities saw mixed movements in 2015, with 7 pairs up and 5 pairs down. Among those, the USD/CNY central parity fluctuated by a large margin, and registered the depreciation of RMB with year-end rate of 6.4936 yuan vs. 6.1248 yuan at the beginning of the year. The USD/CNY central

Figure 5.1 Movements of USD/CNY Central Parity in 2015



Source: China Foreign Exchange Trade System.

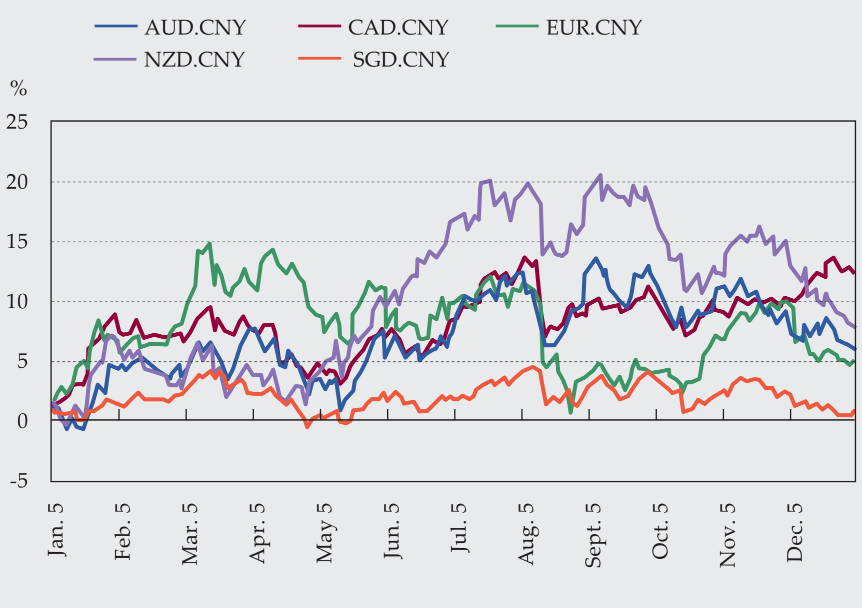
parity fluctuated by 3,857 bps across the year, 3077 bps wider than the previous year. The year of 2015 marked the first that witnessed an obvious CNY depreciation since the exchange rate regime reform in 2005, that is, 5.8% lower in terms of the central parity, also the largest depreciation ever since.

There were ups and downs in the central parities of RMB vs. non-U.S. dollar currencies in 2015. Specifically, RMB appreciated against Euro, Australian dollar, New Zealand dollar, Singapore dollar and Canadian dollar by 5.1%, 6.1%, 8.1%, 1.1%, 12.7% respectively; whereas, depreciation was seen against Pound sterling, Japanese yen, Hong Kong dollar and Swiss Franc by 0.8%, 4.6%, 5.8% and 0.9% respectively. As for emerging market currencies, RMB appreciated significantly, such as CNY /RUB and CNY/MYR central parities up 24.9% and 16.4%, and CNY/KZT and CNY/THB reference rates up 75.9% and 4% respectively.

1.1.2CFETS RMB exchange rate index

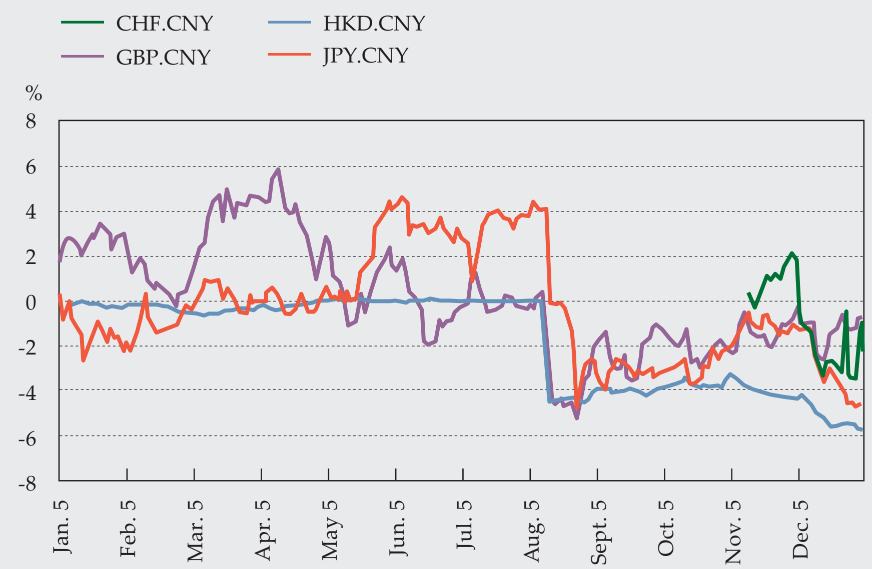
RMB exchange rate remained generally stable in 2015. The RMB exchange rate index published by China Foreign Exchange Trade System (CFETS) closed at 100.94 at year-end, indicating an appreciation of 0.94%. Across the year, the CFETS RMB index was on a mild appreciation for the first 8 months given the stronger U.S. dollar, hitting a high of 105.65. On August 11, the People's Bank of China (PBC) improved the USD/CNY central parity formation mechanism, rendering market forces a bigger role in the formation. Since then, the CFETS RMB index dropped to around 101 and stabilized, along with a depreciating USD/CNY rate. Since November, RMB kept moving lower against U.S. dollar, weighing further on RMB index. Till

Figure 5.2 Movements of EUR/CNY, AUD/CNY, NZD/CNY, SGD/CNY, CAD/CNY Central Parities in 2015



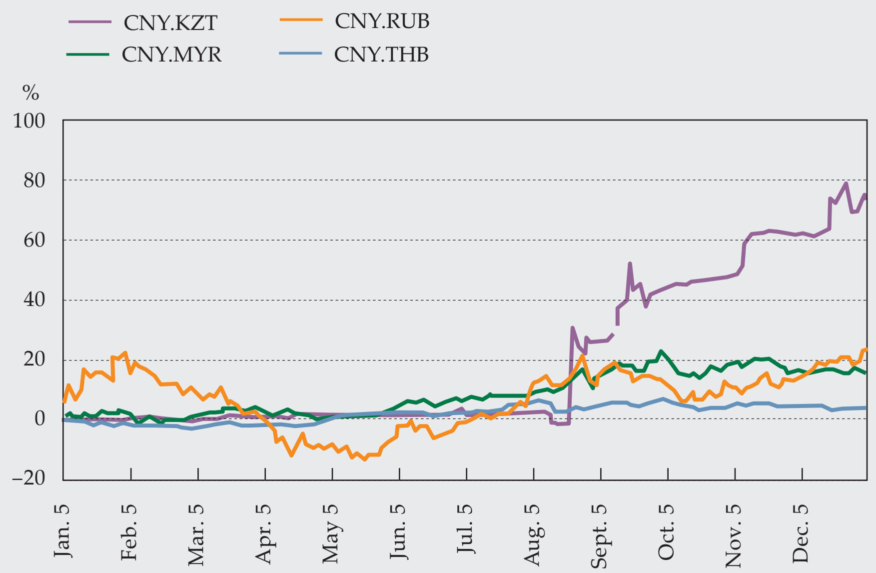
Source: China Foreign Exchange Trade System.

Figure 5.3 Movements of GBP/CNY, JPY/CNY, HKD/CNY, CHF/CNY Central Parities in 2015



Source: China Foreign Exchange Trade System.

Figure 5.4 Movements of CNY/RUB, CNY/MYR, CNY/KZT, CNY/THB Central Parities in 2015



Source: China Foreign Exchange Trade System.

end-2015, the CFET RMB index was almost on a par with end-2014 level, demonstrating a stable RMB rate against a basket of currencies.

1.2 The RMB/FX market

1.2.1 The RMB/FX spot market

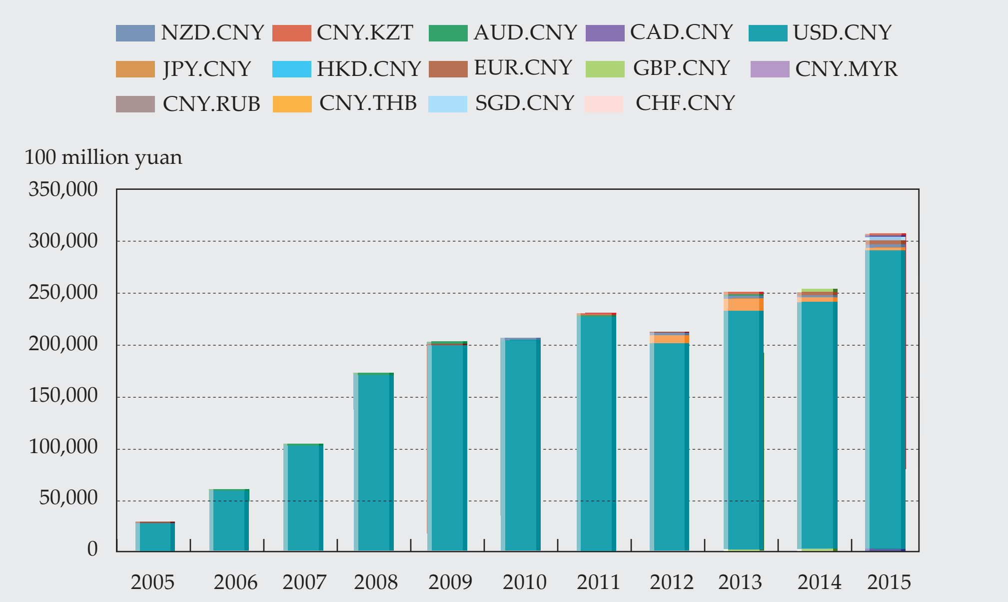
The RMB/FX spot transaction amounted to 30.6 trillion yuan cumulatively in 2015, up 20.6% year-on-year, accelerating 19 percentage points over the previous year. Among those, USD/CNY spot traded 29.1 billion yuan, up 21.1% year-on-year; turnover of EUR/CNY and SGD/CNY registered 425.71 billion yuan and 380.11 yuan, up 34.9% and 353.6% respectively year-on-year. RMB against other non-U.S. dollar currencies traded lower. Trading volumes of JPY/CNY, GBP/CNY, AUD/CNY, NZD/CNY and HKD/CNY spot registered 337.02 billion yuan, 77.96 billion yuan, 100.54 billion yuan, 16.86 billion yuan and 175.02 billion yuan, down 26%, 43.4%, 32.3%, 39.9% and 13.8% respectively year-on-year; CNY/RUB and CNY/MYR traded 22.46 billion yuan and 1.49 billion yuan, showing a decrease of 11.9% and an increase of 25.4% respectively year-on-year; transaction of the newly launched CHF/CNY totaled 14.86 billion yuan in 2015.

1.2.2 RMB/FX market participants

The RMB/FX market continued to expand in 2015. Market members amounted to 518, 53 more compared with the previous year, marking a breakthrough of exceeding 500. Members in foreign currency pair market increased by 20 to 143 in the year.

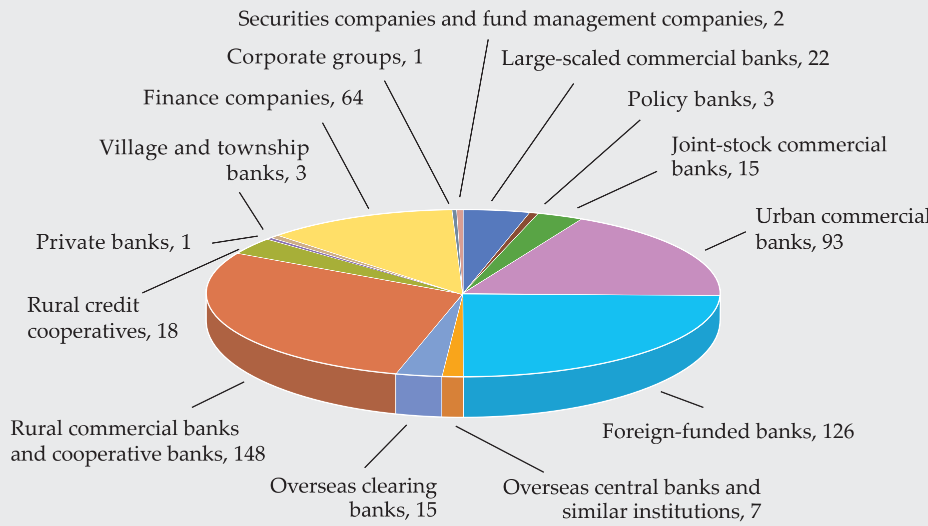
By member types, there were 22 large-scaled commercial banks, 126 foreign-funded banks, 148 rural commercial banks and rural cooperative banks, 2 securities companies and

Figure 5.5 RMB/FX Spot Trading Volume in 2015



Source: China Foreign Exchange Trade System.

Figure 5.6 RMB/FX Market Participant Structure



Source: China Foreign Exchange Trade System.

fund management companies and 7 overseas central banks and similar institutions in the RMB/FX market. By status, 30 of those played a role of market making in spot market; 10 to 15 were market makers specifically for direct trading of EUR/CNY, JPY/CNY, GBP/CNY, AUD/CNY, NAD/CNY, SGD/CNY and CHF/CNY etc.; and 4 market makers for direct trading of CNY/MYR and CNY/RUB.

1.2.3 Foreign currency pair market

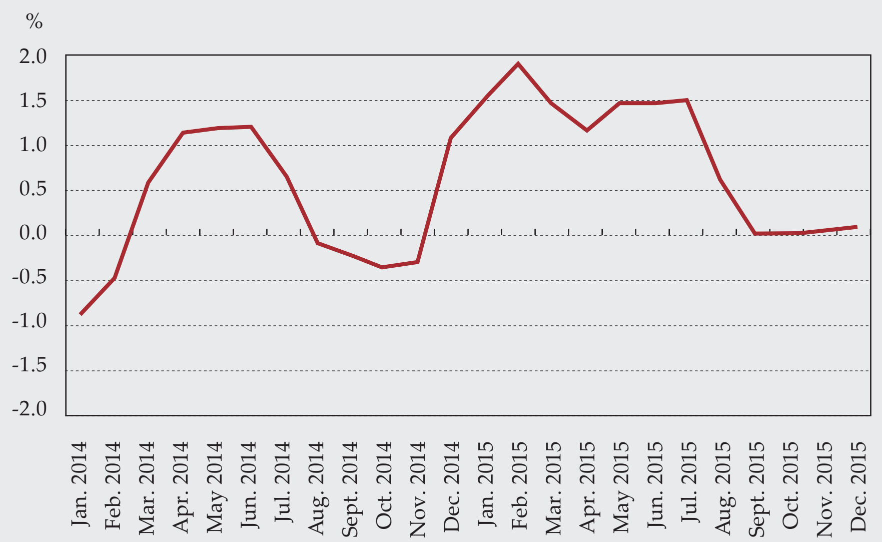
Spot trading of foreign currency pairs increased markedly in 2015, with a total turnover of $71.57 billion, and a year-on-year increase of 59.4%, the highest for the recent 4 years. The main driver was transaction growth of EUR/USD and USD/HKD, demonstrating jump of 102.6% and 57.3% respectively year-on-year. Turnover of the two pairs accounted for 74.8% of the total in foreign currency pair market, and such market share structure remained stable.

2. Major features of FX market performance

2.1 Market forces gained strength in playing a decisive role in exchange rate formation

In August 2015, with the improvement of the USD/CNY central parity formation mechanism, the systemic divergence between the central parity and trading price disappeared, and the role of market forces shifted from a fundamental role to a decisive one. In terms of intra-day prices, the divergence between the central parity and the weighted average of spot trading price hovered around 1.5%, once even rising to 1.9%. With the improvement efforts, the formation of the central parity more relied on market trading prices, and the divergence between the two narrowed significantly. As a result, the systemic deviation of trading price from the central parity no longer existed, and the trading prices showed tight fluctuation around the central

Figure 5.7 Divergence between USD/CNY Central Parities and Trading Prices



Source: China Foreign Exchange Trade System.

parities. Since September 2015, such divergence had been standing at about 0.03%, marking an end of the long-term intra-day divergence. In terms of inter-day prices, the spread between the central parity and the previous day's closing price had been fluctuating at the range of 400-1300 bps, with the daily average at a relatively high level of over 900 bps. After the formation mechanism improvement, such spread was corrected once for all and down to about 30 bps, and no continuous obvious deviation occurring ever since. The overnight exchange rate risk was reduced dramatically.

2.2 RMB generally stayed in the strong currency area

2015 saw the enhanced flexibility of RMB exchange rate against a basket of currencies, demonstrating two-way fluctuations and a strong currency in general. China has been in current account surplus for a long time, with a record high of 3.7 trillion yuan in 2015, and the ratio of current account surplus to GDP was within the internationally recognized reasonable range. In addition, China's foreign direct investment (FDI) and overseas direct investment (ODI) have been on the rise, and boasts of abundant official foreign reserves as well as continuing middle-and-high level economic growth. All these factors contribute to a strong RMB from a long term perspective and there is no ground for continuous RMB depreciation. Compared with most international reserve currencies and emerging market currencies, RMB is still featured as a strong currency. CFETS RMB index also showed that RMB appreciated in general to certain extent in 2015. So did BIS nominal effective exchange rate (NEER) and real effective exchange rate (REER) for RMB, indicating a stronger performance compared with most developed and emerging market currencies.

Table 5.1 Major Currency Index Movements

Unit:%

		China	USA	UK	India	Korea	Japan
NEER	Since 2014	10.2	20.0	9.3	6.2	3.0	-4.3
	Since 2015	3.7	10.8	5.3	1.2	0.8	5.2
REER	Since 2014	10.3	17.2	8.0	13.6	2.0	-4.5
	Since 2015	3.9	9.6	4.4	5.4	0.7	4.1
		Euro area	Australia	Brazil	Malaysia	Russia	South Africa
NEER	Since 2014	-6.8	-8.7	-27.2	-14.5	-44.1	-20.0
	Since 2015	-4.4	-6.0	-25.1	-13.5	-12.4	-17.3
REER	Since 2014	-9.9	-7.9	-19.8	-12.1	-31.1	-13.8
	Since 2015	-5.8	-5.5	-19.5	-12.1	-2.1	-14.3

Source: Bank of International Settlements (BIS).

2.3 Market opening-up accelerated

China's interbank FX market opened further to overseas qualified institutions in addition to overseas RMB clearing banks in 2015. At end-September, according to the notice issued by the PBC, overseas central banks and similar institutions were allowed to enter China's interbank FX market in a multi-way. The first batch of such completed filing with CFETS and officially entered the market in November. Those central banks and similar institutions include three types of institutions, namely, overseas central banks (monetary authorities) and other official foreign reserve management institutions, international financial institutions as well as sovereign funds, and they can choose one or multi market access ways from the following: direct access, using a commercial bank as agent or using the PBC as agent. In December, more qualified overseas institutions were introduced, that is, those overseas participating banks which fulfill certain criteria in terms of RMB purchase and sales business were allowed to enter the interbank FX market, with all kinds of products available. This marked a big step forward in interbank FX market opening-up.

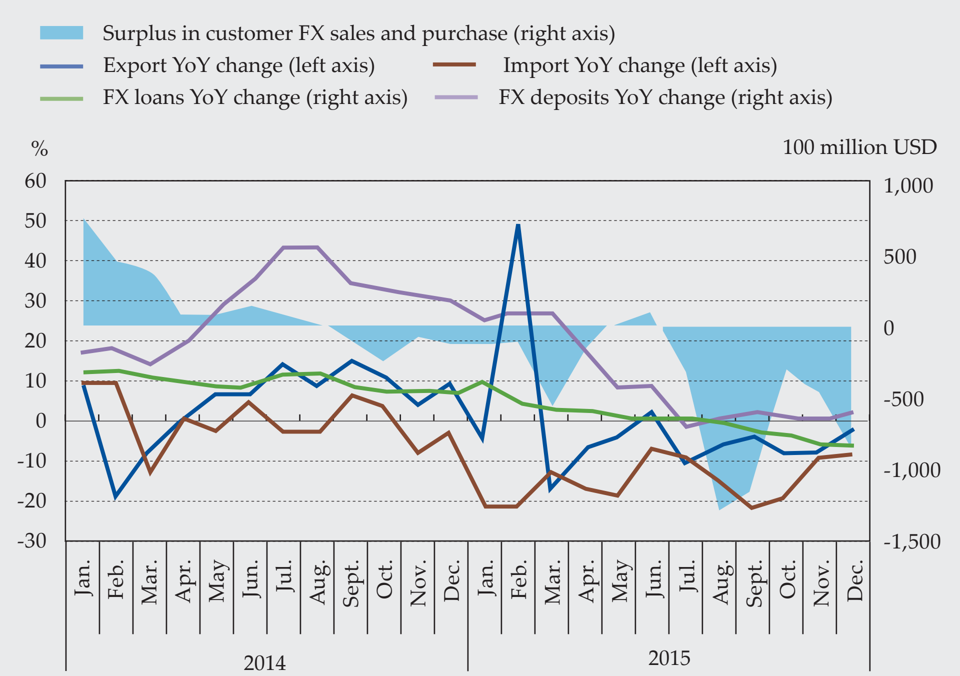
Since August 24, 2015, CFETS published on its website the USD/CNY reference prices at 10:00, 11:00, 14:00, 15:00 and 16:00 every business day. Updating several times was beneficial for domestic and overseas participants to referring to renewed prices. These reference prices are calculated by weighted averaging market trading prices in the 30 seconds intervals before each specific point of time. Therefore, those prices derived from market trading prices and were the overall reflection of market supply and demand on that trading day, serving as the additional references available for domestic and overseas institutions including international financial institutions. On November 30, 2015, IMF ratified to include RMB into the SDR basket, and those USD/CNY reference prices will play a significant role in SDR pricing.

Besides, interbank FX market trading hours were extended to cover European time zone. On December 23, 2015, the PBC and State Administration of Foreign Exchange (SAFE) announced that, trading hours for interbank FX market would be extended to 23:30 Beijing time starting from the beginning of 2016, so as to cover European time zone and facilitate domestic and overseas market participants. With these efforts, China's interbank FX market became more inclusive.

2.4 Market environment got more complicated

Internationally, major international reserve currencies performed differently, and some emerging market currencies suffered pronounced fluctuations. The U.S. dollar index moved upward by a large margin of 9.3%, whereas Euro, Pound sterling and Japanese yen moved downward by 10.2%, 5.4% and 0.5% respectively in 2015. Among emerging market currencies, Brazilian real and Russian ruble tumbled 32.9% and 20.4%, along with the slump of Korean won and Indian rupee by 7% and 4.8% respectively. Domestically, RMB was included into the SDR basket successfully, and RMB secured its status as the top 5 most used payment currencies globally, supported by a sound balance of payments and economic fundamentals. But from the other perspective, expanded trade surplus was attributable to less severe export negative growth than import negative growth, actually showing a feature of economic recession given the negative growth in every month. Market participants, therefore, continuously adjust their foreign currency asset and liability allocation in a pro-cyclical

Figure 5.8 Changes in Imports & Exports, FX Deposits & Loans, Customer FX Sales and Purchase



Source: China Foreign Exchange Trade System.

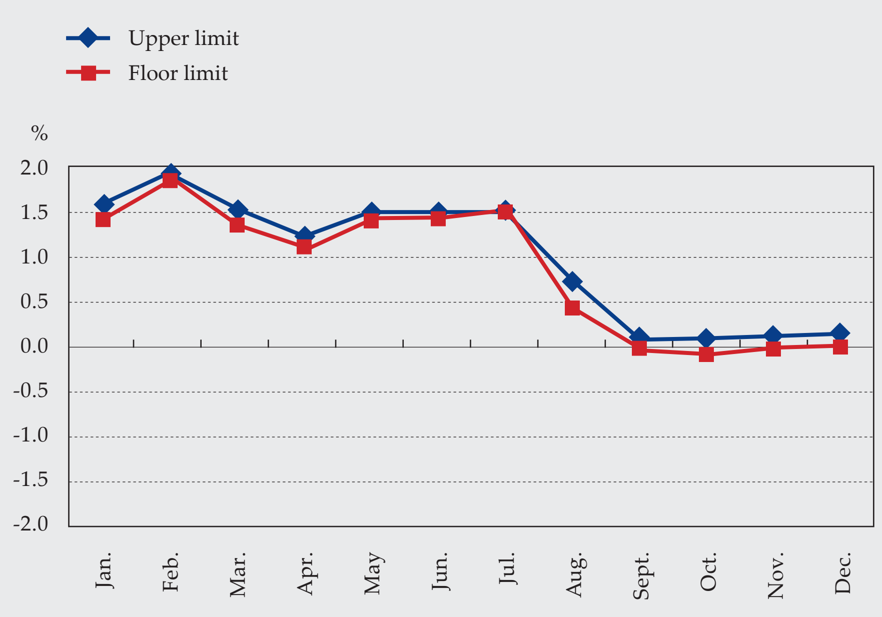
way. From September 2015, foreign currency loans shifted into negative growth territory and stayed, with foreign currency deposits growing faster than foreign currency loans in a row. That indicted an increasing demand for foreign currency denominated assets, along with foreign currency denominated liabilities dropping to net decrease from negative growth rate. Client foreign exchange sale to and purchase from banks registered deficit balance for most time period, and hitting record deficit in the third quarter, resulted from the plus foreign exchange purchase demand versus the minus sale interests. All these international and domestic factors affected market participants' judgement and expectation on RMB exchange rate appreciation/depreciation, and in turn affected the exchange rate movements across the year.

3. Institution building of interbank FX market

3.1 USD/CNY central parity formation mechanism was enhanced

Since the second half of 2014, RMB exchange rate was influenced by two opposite factors: on one hand, China enjoyed continuous large trade surplus; on the other hand, the U.S. dollar appreciated against other major currencies. Consequently, market makers differed in exchange rate expectation, and RMB trading prices diverted from the central parities. In order to enhance the market-based USD/CNY central parity formation mechanism and its benchmark role, the PBC decided that, from August 11, 2015, market makers started to provide quotes to CFETS before market opening in an improved way. That is, market makers

Figure 5.9 USD/CNY Trading Price Floating Band



Source: China Foreign Exchange Trade System.

should refer to the previous day's closing trading price in the interbank FX market, and at the same time take into consideration of market supply and demand as well as major currency movements in the international market.

Such formation mechanism improvement not only gave rise to reduced central parity/trading price divergence, but also helped to push USD/CNY central parity closer to an equilibrium market rate. Under the managed floating exchange rate regime, market prices are expected to fluctuate around the benchmark central parity, and the divergence between them can be rectified by market forces themselves. After the adjustment, the central parity formation relied more on market supply and demand, and such mechanism itself could prevent the central parity from deviating from trading prices in a continuous and dramatic way. In general, these efforts improved the market-based central parity formation mechanism, leading to more reasonable central parity and more flexible trading prices, and rendering exchange rate a better role in adjusting market supply and demand.

3.2 CFETS RMB index was launched

The CFETS RMB index was officially published on Chinamoney website on December 11, 2015. The index reflected a kind of change in the weighted average exchange rate of RMB against a basket of currencies, a more comprehensive indication of RMB exchange rate movements. There are certain exchange rate indexes compiled the similar way internationally. For instance, indexes published by monetary authorities include those issued by Federal Reserve System, European Central Bank and Bank of England; among those published by intermediaries, the U.S. dollar index issued by ICE has become an important reference in global market. In line with those international practices, CFETS published RMB index so as for market participants to observe RMB effective exchange rate changes more conveniently, together with the other two RMB indexes referring to BIS currency basket and SDR currency basket respectively.

Market participants used to observe RMB exchange rate movements from the perspective of USD/CNY bilateral rate, and it's been a long time. But it's known that exchange rate change is to play a role in adjusting foreign trade and investment portfolio with a country's trading partners, so it's not enough to only observe USD/CNY bilateral rate which can not reflect the internationally comparable price of a tradable commodity. Therefore, it's more reasonable to referring not only USD/CNY bilateral rate but also a basket of currencies when observing RMB exchange rate movements. Compared with only referring to a single bilateral rate, the exchange rate index could better reflect the comparable competitiveness of a country's tradable commodities and services, thus better play a role in adjusting exports and imports, investments and balance of payments. The launch of CFETS RMB index provided a quantified reference for market participants to observe RMB exchange rate from a different angle, and reflected RMB exchange rate movements in a more comprehensive and accurate way.

Since 2015, CFETS RMB index has remained generally stable, and RMB was still with the strong currency camp among major international currencies. On December 31, 2015, CFETS RMB index stood at 100.94, an appreciation of 0.94% year-on-year; RMB indexes referring to BIS currency basket and to

SDR currency basket registered 101.71 and 98.84 respectively, an appreciation of 1.71% and a depreciation of 1.16% respectively year-on-year. Among these three RMB indexes, two showed appreciation and one showed depreciation, indicating that RMB remained generally stable against a basket of currencies in 2015. Looking into 2016, RMB exchange rate formation mechanism will be still with the features of being based on market supply and demand with the reference to a basket of currencies as well as being resilient with two-way fluctuations, also RMB exchange rate policies will play a more important role in adjusting balance of payments.

3.3 More RMB/FX direct trading were introduced

CHF/CNY direct trading was launched on November 10, 2015, supported by specific market makers. All RMB/FX market members have access to CHF/CNY direct trading, including spot (exchange-like and bilateral negotiation), forward and swap trading. This newly launched direct trading could promote Sino-Swiss bilateral trading and investments, facilitate the use of RMB and Swiss franc as settlement currencies, and fulfill the economic agents' need of reducing exchange costs.

With the growing use of RMB internationally, market demand for RMB trading against non-U.S. dollar currencies increased. Against such backdrop, direct trading of RMB against foreign currencies of Japanese yen, Euro, Pound sterling, Australian dollar, New Zealand dollar, Singapore dollar and Swiss franc were successively introduced to the interbank FX market. The direct trading, on one hand, is beneficial to price transparency and could generate bilateral exchange rate in a direct way, thus contributing to lowered friction costs as well as enterprises and individuals' exchange costs. On the other hand, the direct trading will push forward RMB internationalization. As in Russia and Korea, direct trading of RMB against local currencies has been growing to a certain scale. Stimulated by closer economic and trade ties between China and foreign countries, demand for RMB/FX direct trading including against emerging market currencies will further increase.

Table 5.2 RMB/FX Direct Trading Evolving Path

Launching time	Currency pair
Aug. 19, 2010	CNY/MYR
Nov. 22, 2010	CNY/RUB
Jun. 1, 2012	JPY/CNY
Apr. 10, 2013	AUD/CNY
Mar. 19, 2014	NZD/CNY
Jun. 19, 2014	GBP/CNY
Sept. 30, 2014	EUR/CNY
Oct. 28, 2014	SGD/CNY
Nov. 9, 2015	CHF/CNY

3.4 Market management institution was further improved

In 2015, in order to attract more financial institutions to enter the interbank FX market by facilitating their FX business, several reform measures on market management took effect so as to further streamline government and delegate authorities. The SAFE sorted and consolidated relevant rules and regulations, terminated several market access related ones, and removed examination and approval based market access mechanism, also clarified the basic trading rules governing financial institutions in the FX market. In January, 2015, the *Implementary Rules of Administrative Measures on Foreign Exchange Purchase and Sale* was promulgated by the SAFE, adjusting the evaluation frequency on banks' composite position of FX purchase and sale from daily to weekly, and terminating the policy of linking FX purchase and sale composite position with FX loan-to-deposit ratio. Thanks to this, FX position administration was relaxed and policy transparency enhanced. FX administration reforms were conducive to improved market efficiency and additional spaces for market participants to manage trading activities. Therefore, these reforms were beneficial to nurturing diversified trading demand, and conformed to the "new normal" of FX market developments.

3.5 Electronic platform for FX credit lending went live

CFETS FX trading system officially launched a new service of supporting FX credit lending on April 13, 2015. On this new electronic platform, deals are done by bilateral negotiation and settled bilaterally, with products covering those denominated in U.S. dollar, Euro and Hong Kong dollar, as well as 10 standard tenors and non-standard tenors. The trading system deal ticket is the effective written proof of FX credit lending transaction confirmed by both parties involved. As of end-2015, there were 286 participants in the FX credit lending market, including banks, finance companies, trust companies, insurance companies and securities companies etc. And total trading volume amounted to 3188 contracts, $ 90.32 billion in 2015. The newly launched electronic system provides an organized trading platform for market participants, and is helpful not only in enhancing trading efficiency and lowering transaction costs, but also in forming unified transparent FX yield curve and facilitating market participants' pricing, valuation and risk management.

4. FX market development trends

The market-oriented RMB exchange rate formation mechanism reform will stick to the direction and continue to make progress in the future. Market supply and demand will play a more decisive role in exchange rate formation in accordance with market developments as well as economic and financial situation. Efforts will be made to improve the managed floating mechanism based on market supply and demand, promote BOP balance, and enhance RMB exchange rate resilience of two-way fluctuations. In this way, RMB exchange rate will remain basically stable at an equilibrium and adaptable level, and domestic and overseas resource allocation efficiency will be enhanced.

Importance will be attached to accelerate FX market developments and enrich products, such as developing more liquid and standardized products, in order to deepen market depth and breath, and cater to market demands for diversified products. Measures will be taken to promote market opening-up and expand foreign participants. Also, research will be conducted on further extending trading hours to cover more time zones, in order that a unified RMB exchange rate will be formed and comprehensive market infrastructure established globally.

Attention will be paid to strengthen market risk prevention, pre-warning and management. Under the environment of more complicated cross border capital flows, multiple adjustment measures including price tools should be taken to strengthen macro prudential management, so as to prevent risk of abnormal cross border capital flow and ensure capital move across the border in an orderly and disciplinary way.

Part VI Gold Market

Under the influence of Fed interest rate rise expectations and strengthening US dollar Index, the gold market in 2015 went downward under pressure. The gold price dropped 11.42% for the whole year, and tumbled to the lowest level in six years. Compared with other major international gold markets, China's gold market traded actively. The domestic over-the-counter (OCT) gold business of Shanghai Gold Exchange, Shanghai Futures Exchange (SHFE) and commercial banks increased by 89.58%, 6.08% and 110.36% respectively. With the acceleration of opening up to the outside world and further improvement of trading mechanisms, China's gold market would make further progress in its financialization and internationalization.

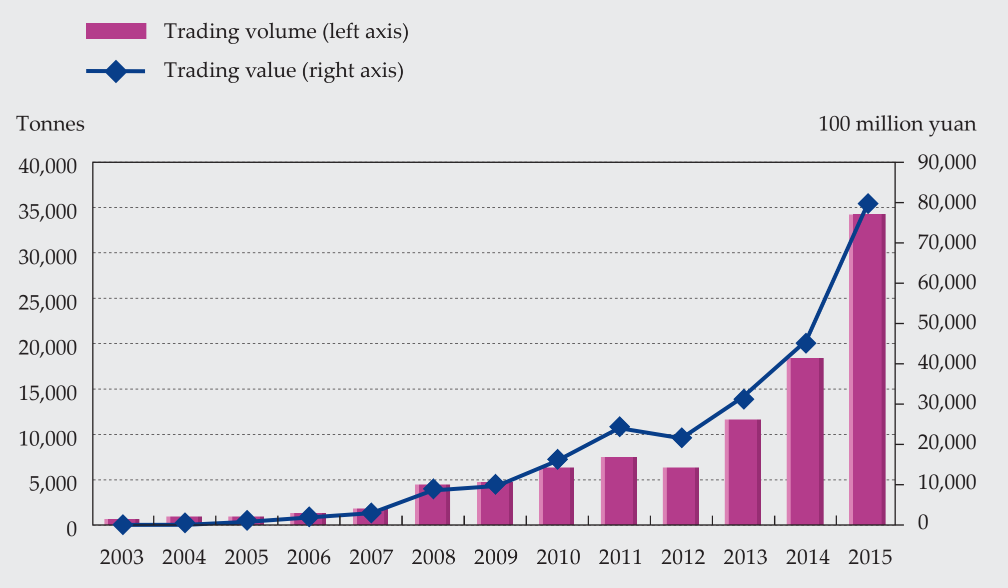
1. Gold market performance

1.1 SGE spot gold market performance

1.1.1 Trading volume grew fast amid spot gold price downward fluctuation

In 2015, domestic spot gold price fluctuated downward following international gold price changes. At the beginning of the year, the dominant contract of Au99.99 on Shanghai Gold Exchange (SGE) opened at 240.6 yuan per gram and closed at 222.86 yuan per gram, which fell by 7.37% compared with the figure of the end of

Figure 6.1 Gold Trading on SGE, 2003—2015



Source: SGE.

last year. For the whole year, the peak was 280 yuan per gram and the lowest was 210.79 yuan per gram. The weighted average price in the year was 235.17 yuan per gram, down by 5.75% on a year-on-year basis.

In 2015, gold trading volume on SGE generally maintained a stable and fast growing pace. The trading volume of gold registered at 34,100 tonnes and valued at 8.01 trillion yuan, up 89.58% and 74.51% respectively compared with that of 2014. The average daily trading volume amounted to 139.62 tonnes, up 90.36% comparing with that of 2014.

1.1.2 Products structure tended to be balanced with co-development of prices matching and asking businesses

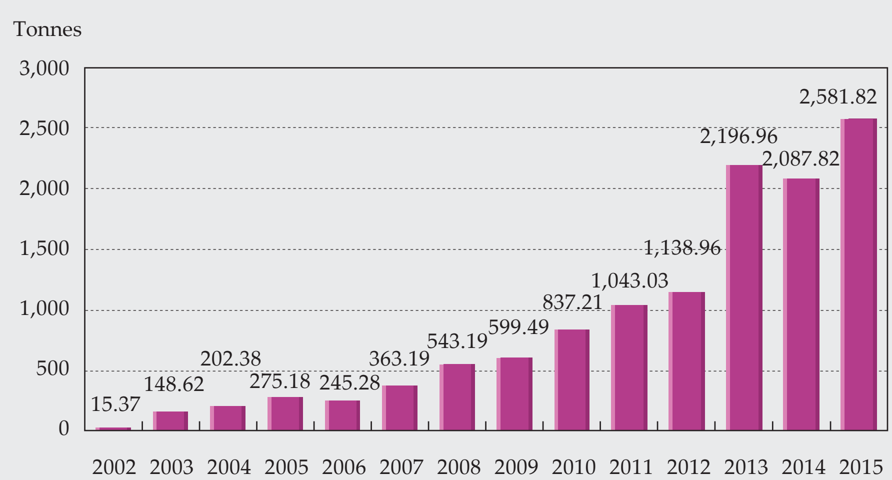
In 2015, various business sectors on SGE grew substantially, and a market made up by three business parts of deferred gold products, physical gold products and price asking products took its initial shape. In the business of price matching, physical contracts traded 9,254.12 tonnes, up 74.94% over the year of 2014, sharing 27.16% of the market. Deferred contracts traded 14,576.79 tonnes, up 47.54% over the previous year, sharing 42.79% of the market. Price asking products traded 10,236.47 tonnes, up 265.67% over 2014, and market share increased from 15.58% to 31.71%, complementary to the development of the price matching market.

1.1.3 Corporate trading increased greatly while share of individual trading decreased

By the end of 2015, domestic members in SGE reached 182, increasing 9 comparing with the figure at the end of last year. International members were 63, and 23 members were new. Corporate customers reached 9,982, 1,678 of which were new. Individual customers reached 8.6344 million, 1.0522 million of which were new.

From the aspect of trading volume, the primary

Figure 6.2 Volume of Gold Load-in and Load-out Vaults on SGE, 2002—2015



Source: SGE.

status of corporate customers in the gold business was continuously strengthened. In 2015, the trading volume of corporate customers grew 95.88% to 30,200 tonnes, sharing 88.68% of the market. The trading volume of individuals grew 51.45% to 3,856.19 tonnes, and its market share went down 2 percent to 11.32%.

1.1.4 Clearing amount substantially increased and volume of gold load-in and load-out vaults maintain growing

In 2015, total clearing amount on SGE registered 2.7326 trillion yuan, up 53.91% over the previous year, including 1.6816 trillion yuan from proprietary trade and 1.051 trillion yuan from agent trade, which increased by 63.95% and 54.55% respectively. Average daily clearing amount was 11.2 billion yuan by an increase of 54.55%.

The volume of gold bullions load-in and load-out vaults generally kept a trend of fast growing. In 2015, the amount of gold load-out reached 2,581.82 tonnes, increasing by 23.66% comparing with 2014, while the amount of gold load-in was 2,665.79 tonnes, increasing by 23.28% comparing with 2014.

1.2 Shanghai Futures Exchange (SHFE) gold futures market performance

1.2.1 Domestic and foreign prices of gold futures were highly correlated, spread between domestic gold futures and spot increased

The movements of domestic and US COMEX gold futures prices kept connected, and the correlation coefficient between the two was as high as 0.95. In 2015, the dominant contract of domestic gold futures opened at 240 yuan per gram with its peak at 263.2 yuan per gram and bottom at 216.8 yuan per gram, and closed at 226.05 yuan per gram, which decreased 6.84% comparing with the price at the end of previous year. From the aspect of the spread between gold futures and spot, the closing price of domestic gold futures was higher than the opening price of spot Au9999 in 240 trading days among 244 trading days for the whole year. The spread between futures and spot fluctuated between -0.25 and 4.32, and the average spread was 2.07 yuan per gram, up 62.99% compared with 1.27 yuan per gram in 2014. The increase of the spread reflected the market anticipation of upward gold price in the future.

1.2.2 The scale of futures trading increased slightly amid stable growth, and open position kept growing

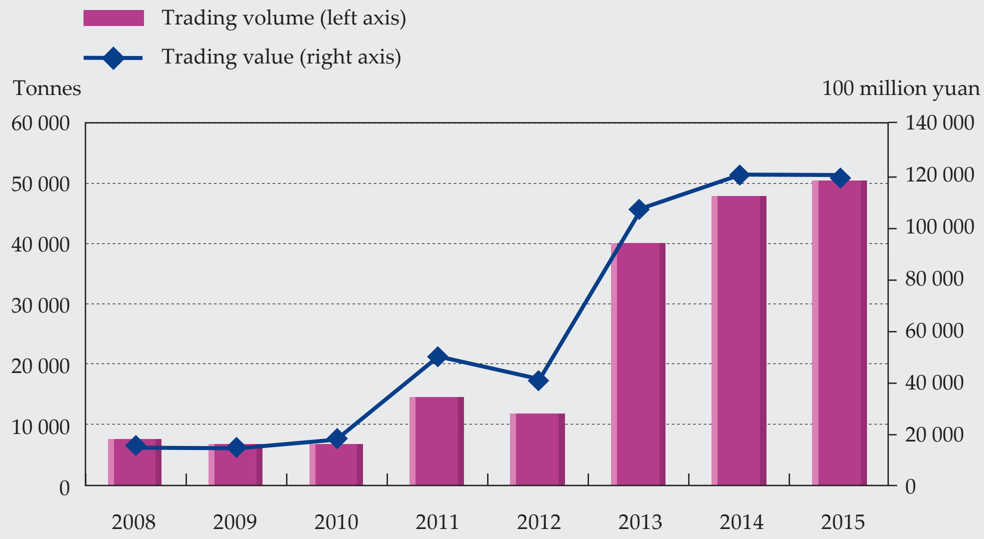
According to bilateral statistics, the cumulative trading volume of gold futures at SHFE recorded 50,634.4 thousand lots (50,634.4 tonnes) in 2015, up 6.08%, and the trading value amounted to 11.98 trillion yuan, equaled to the figure of last year and accounting for 9.47% of the total trading value of all futures at the SHFE, 0.04 percentage point lower than last year. The daily trading volume was 207.52 tonnes, up 6.52% year-on-year.

As the trading volume kept on growing in the periods of continuous trading, the continuity of gold future price was improved and the scale of investors' open position kept on increasing. By the end of 2015, average month-end position of gold futures at the SHFE was 227.87 thousand lots (equals 227.87 tonnes), increasing 9.03% comparing with last year.

1.2.3 Physical delivery kept on growing

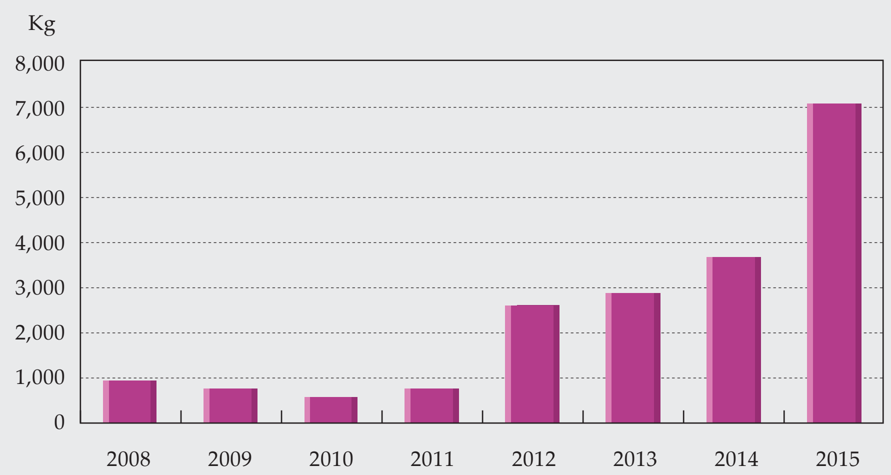
In 2015, the physical delivery of gold futures reached 7,056 kilograms, up 93.26% year-on-year. Average monthly delivery was 588 kilograms.

Figure 6.3 Trading Volume and Value of Gold Futures, 2008—2015



Source: SHFE.

Figure 6.4 Physical Delivery of Gold Futures on SHFE, 2008—2015



Source: SHFE.

1.3 Commercial banks' gold business performance

1.3.1 The gold spot trading volume in the exchange increased double

In 2015, the gold trading volume by commercial banks on the SGE totaled 25,297.91 tonnes (including proprietary and agent businesses), and valued 5.94 trillion yuan, up 110.36% and 99.3% respectively. The trading proportion of the commercial banks rose from 68% in 2014 to 74.26%. Among which, the proprietary gold business traded 18,217.74 tonnes, increasing 120.46%. The brokerage business for enterprises and individuals by the commercial banks totaled 7,080.17 tonnes gold, growing 64.38%. 3,247.38 tonnes of gold was traded for enterprises, while 3,832.79 tonnes was traded for individuals, up 84.35% and 50.57% respectively.

1.3.2 The gold futures traded through proprietary business by the commercial banks increased year-on-year

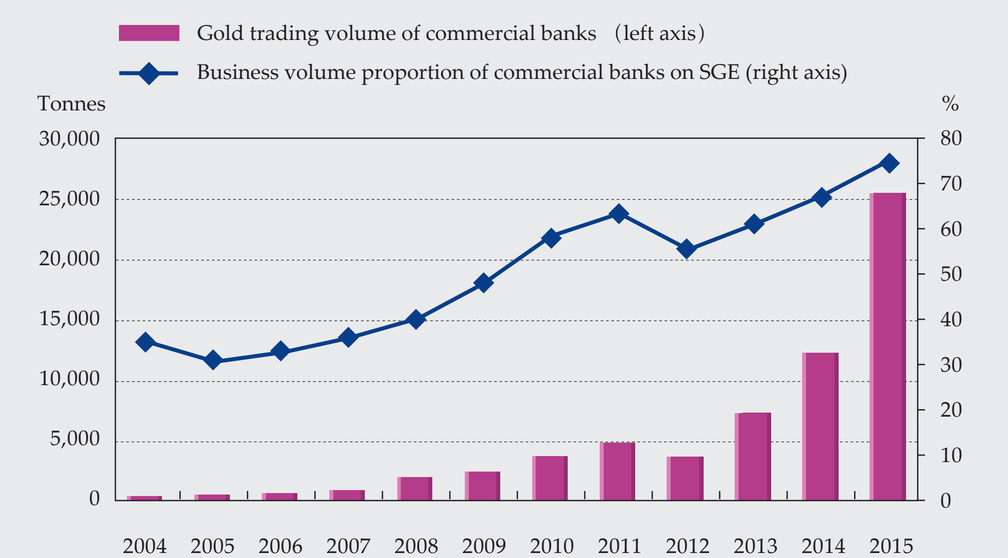
By the end of 2015, 17 commercial banks became the members of the SHFE. Their trading of gold futures through proprietary business accumulated to 1,109.352 tonnes, increasing 25.09% and accounting for 2.19% of total gold futures trading volume on the SHFE.

1.3.3 Domestic proprietary gold business of the commercial banks on the whole kept growing

In 2015, the commercial banks carried out various over-the-counter (OTC) gold businesses. The trading volume accumulated to 6,594.23 tonnes and increased 48.9%, with interbank gold lending, gold futures and gold swap grew particularly fast.

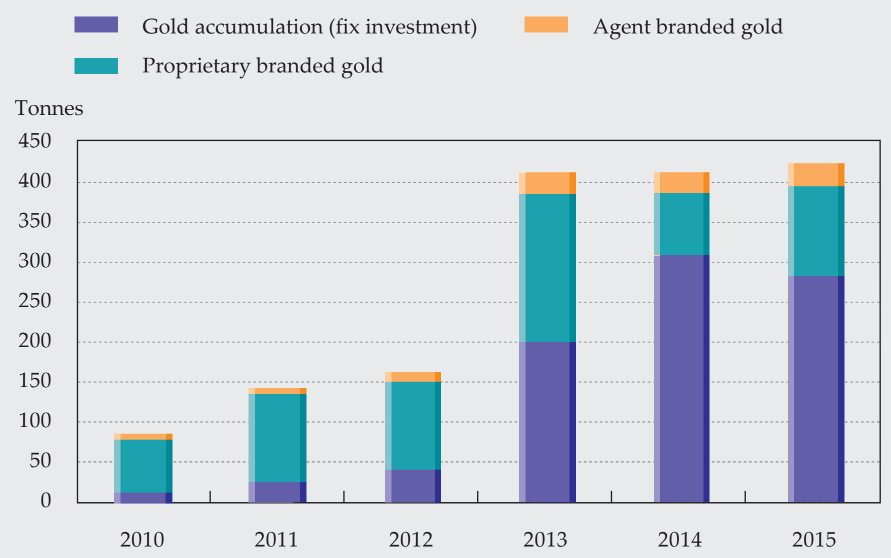
Sales of physical gold tended to be stable. In 2015, physical gold sold by commercial banks accumulated to 419.4 tonnes, up 1.89%. The sales value amounted to 104.584 billion yuan, decreasing 3.26%. Specifically, sales of proprietary branded gold increased 41% to

Figure 6.5 Gold Trading Volume and Proportion of Commercial Banks on SGE, 2004—2015



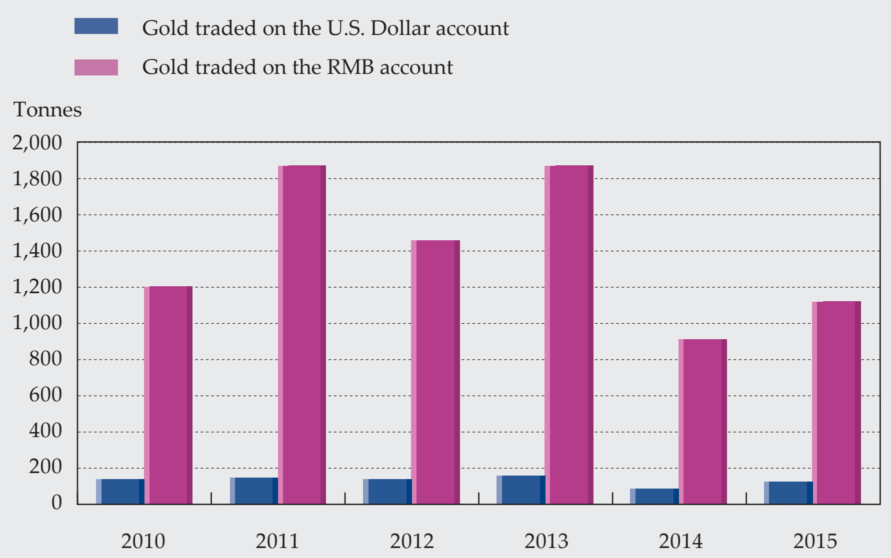
Source: Database of China gold market monitoring and analysis system.

Figure 6.6 Sales of Physical Gold by Commercial Banks, 2010—2015



Source: Database of China gold market monitoring and analysis system.

Figure 6.7 Historical Trading Volume on the Gold Account of Commercial Banks, 2010—2015



Source: Database of China gold market monitoring and analysis system.

110.17 tonnes and that of agent branded gold increased 8% to 25.48 tonnes, while sales of gold accumulation (gold fix investment) decreased 8.48% to 283.74 tonnes. The sales of physical gold tended to be stable after the growth in 2013 with the constant trend of low gold prices.

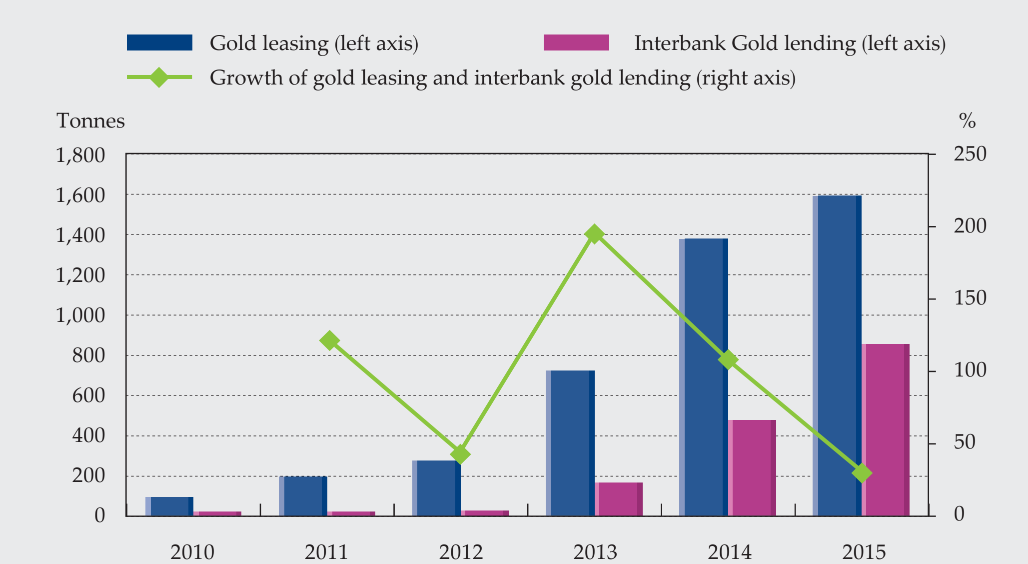
Trading of gold on the account picked up. In 2015, the gold traded on the commercial banks' accounts amounted to 1,227.19 tonnes and valued at 288.293 billion yuan, up 24.13% and 16.07% respectively. In particular, the gold volume traded on the U.S. Dollar account and RMB account increased 50.71% and 21.85% to 117.37 tonnes and 1,109.83 tonnes respectively.

Gold leasing business kept growing. The gold leasing business consists of interbank gold lending between commercial banks and gold leasing between commercial banks and their corporate clients. In 2015, gold leasing volume of commercial banks accumulated to 2,431.93 tonnes, growing 31.78%. The nominal trading value increased 24.46% to 574.893 billion yuan. In particular, the trading volume of gold leasing for clients was up 15.47% comparing with 2014 to 1,582.71 tonnes, and that of interbank gold lending increased 78.86% to 849.22 tonnes.

Gold pledge business grew year-on-year. In 2015, commercial banks accumulatively accepted 27.47 tonnes of pledged gold, and provided 4.888 billion yuan loans pledged by gold, up 60.23% and 48.89% respectively comparing with 2014.

Sales of gold wealth management business declined. In 2015, the nominal principal of all wealth management products of gold offered by commercial banks amounted to 556.676 billion yuan, with a decrease of 34.73% over the previous year. 624.523 billion yuan products

Figure 6.8 Gold Leasing, Interbank Gold Lending and Growth of Gold Leasing and Interbank Gold Lending, 2010—2015



Source: Database of China gold market monitoring and analysis system.

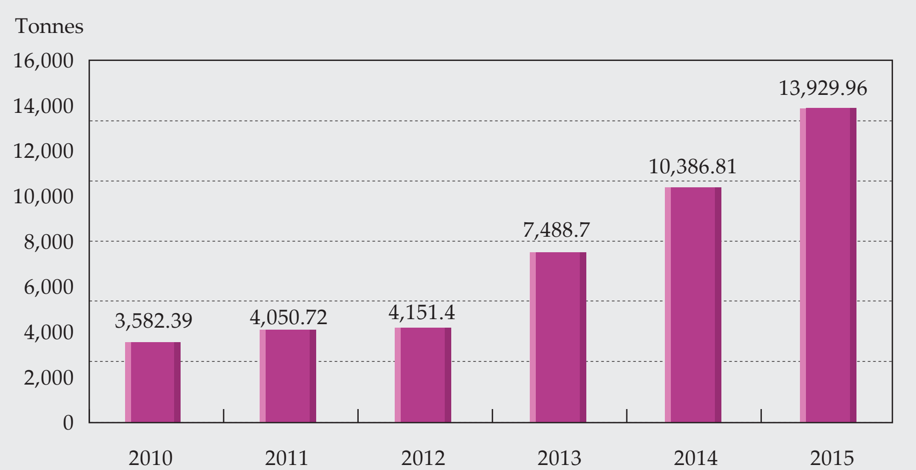
were due and redeemed, down 20.49%. By end of 2015, unmatured wealth management products of gold stood at 182.243 billion yuan, decreasing 33.2% comparing with the figure at the end of 2014.

Domestic gold derivatives kept on growing fast. Domestic OTC gold derivatives offered by commercial banks include gold forward, gold swap and gold option denominated in U.S. dollar and RMB. In 2015, the cumulative trading volume of domestic OTC gold derivatives reached 2,216.88 tonnes, increasing 1.56 times comparing with 2014. Specifically speaking, gold forward trading increased 101.95% to 1,488.82 tonnes and gold swap trading increased 5.17 times to 718.81 tonnes, while gold option traded 9.25 tonnes with a decrease of 27.35%. Judging gold derivatives trading from different currencies, the trading volume of gold derivative denominated in RMB accumulated to 1,047.99 tonnes with an increase of 4.05 times, surpassing that of gold derivative denominated in U.S. dollar 77%.

1.3.4 Offshore gold trading of commercial banks continued to grow, the business of forward and swap taking up more than 70%

In 2015, the trading volume of offshore gold business of commercial banks hit 13,929.96 tonnes and the trading value reached $517.39 billion, increasing 34.11% and 22.16% respectively year-on-year. In particular, offshore gold swap accumulatively traded 8,377.63 tonnes with an increase of 29.88%, offshore gold forward traded 1,960.93 tonnes with an increase of 66.19%, offshore gold future traded 136.61 tonnes with an increase of 7.1 times, offshore gold option traded 1.98 tonnes with a decline of 66.18%, offshore gold spot traded 3,452.82 tonnes with an increase of 26.29%. From the aspect trading structure, gold forward and gold swap took up 14.08% and 60.14% respectively of offshore gold derivatives traded by commercial banks. The trading proportion of offshore gold spot was 24.79%, the same as that of 2014 and

Figure 6.9 Offshore Gold Trading Volume of Commercial Banks, 2010—2015



Source: Database of China gold market monitoring and analysis system.

down 22 percentage points comparing with the figure of 2013. The total trading share of gold future and gold option was about 1%.

2. Features of gold market performance

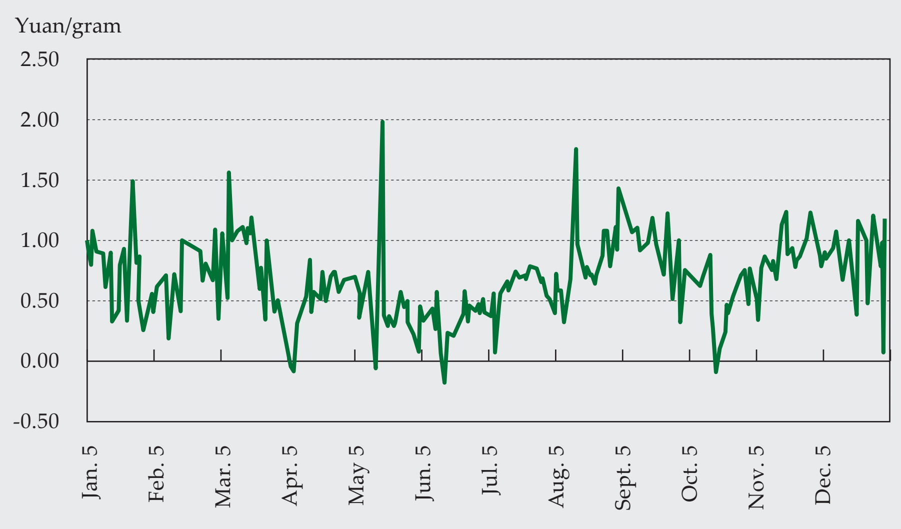
2.1 The spread between domestic and foreign gold spot moved steadily and the spread between gold futures was expanded

By the year end, the SGE contract of Au9999 closed at 222.86 yuan per gram, declining 7.37%. Affected by 6.13%[2] depreciation of RMB, the drop of domestic gold spot prices decreased comparing with 11.43% drop of international gold price. If no direction was considered, the average spread between domestic and foreign gold spot in 2015 was 0.77 yuan per gram, increasing 4.34% year-on-year. Among 244 trading days across the year, 240 days saw higher domestic gold spot prices than international prices, with 50 days more than the figure of last year. The average price difference was 0.78 yuan per gram, down 7.15%. There were 4 days that domestic gold prices lower than the international ones, with average price difference at -0.28 yuan per gram. Since the domestic supply and demand of physical gold was basically balanced, the movement of spread between domestic and foreign gold prices kept stable and seasonal expansion was not obvious. From the aspect of the spread between domestic and foreign gold futures, it was because of the affection from the RMB depreciation anticipation that the average spread between SHFE gold futures and COMEX gold futures increased 48.95% from 2.21 yuan per gram in 2014 to 3.29 yuan per gram.

2.2 China's gold market grew fast and the interbank price asking market prospered

In 2015, the gold products traded on SGE and

Figure 6.10 The Movement of the Spread Between Domestic and Foreign Gold Spot in 2015



Source: SGE.

2 Measured by daily CNY central parity rate published by CFETS.

gold futures on the SHFE grew 89.58% and 6.08% respectively, and the OTC gold business of domestic commercial banks grew 48.9%. In the meantime, the trading volume of gold futures in the United States increased 3.09% and the settlement in the London gold market decreased 5.07%. China's gold market kept fast growing momentum and the growth rate surpassed that of major international gold markets.

The business of gold prices asking was an important trading method between banks and other institutional investors. In 2015, the business of gold prices asking on SGE amounted to 10,236.47 tonnes, up 265.67% and taking up 30.05% of the total gold business volume on the SGE. The share of prices asking business rose 15 percentage points over last year. In terms of participants, the number increased from 454 in 2014 to 595, and the number of banks that participating interbank prices asking rose from 43 to 50. The participants were further enlarged and optimized, and the institutions of prices asking included banks, securities companies, etc.

2.3 The market of international board developed quickly and the participation from commercial banks in the international gold market increased

First, the members of international board increased and the trading volume enlarged. By the year end, international members of the SGE rose from 40 to 63. In 2015, the trading volume of gold on international board accumulated to 4,795 tonnes and valued at 1.14 trillion yuan. Second, the trading by the way of Shanghai-Hong Kong Stock Connect started. In July of 2015, the Chinese Gold and Silver Exchange Society (Hongkong) and the Shanghai Gold Exchange jointly launched Shanghai-Hong Kong Gold Connect, a mechanism started the connectivity of two main gold markets in mainland and Hong Kong. Third, the channels for gold imports further expanded. According to the *Law of the People's Republic of China on The People's Bank of China*, the People's bank of China is responsible for implementing management and relevant approval of gold imports and exports. There are 18 banks, four of which are foreign funded banks, qualified to import gold in China by now. In 2015, the People's bank of China and the General administration of customs issued the *Regulation on the Import and Export Administration of Gold and Gold Products*, which extended the qualification of gold imports to those qualified gold enterprises. Four, the participation of commercial banks in the international gold market increased. In 2015, the trading volume of various gold businesses operated by commercial banks overseas amounted to 13,929.96 tonnes with a year-on-year growth of 34.11%, and nominal trading value was $517.39 billion with a year-on-year increase of 22.16%. Bank of China, Industrial and Commercial Bank of China, China Construction Bank, Bank of Communications and other institutions joined the membership of London Bullion Market Association (LBMA) one after another. In particular, Bank of China and China Construction Bank took part in LBMA price offering of gold fixing price.

2.4 The trading on gold derivatives market was active and the market share quotated in RMB increased significantly

From the aspect of market in the exchange, the trading volume of gold forward price asking and swap price asking businesses on the SGE in 2015 totaled 6,717.24 tonnes, growing 278.19%, and deferred gold products traded 9,879.89 tonnes with an increase of 47.54%. In 2015, gold forward trading volume on the SHFE grew

6.08% year-on-year.

From the aspect of OTC market, the year 2015 saw cumulative trading volume of domestic OTC gold derivatives business by commercial banks increase 156% to 2,216.88 tonnes, with nominal trading value growing 140% to 520.76 billion yuan. In particular, the gold derivatives quotated in RMB reached 1,047.99 tonnes with an increase of 4.05 times. Among the domestic gold derivative products, the market share of gold derivatives quotated in RMB grew from 3.69% in 2010 to 47.28% by the end of 2015.

3. Gold market mechanism construction and product innovation

3.1 Product system of gold market kept improving

3.1.1 Gold option transactions were launched by the system of interbank prices asking

In order to serve the real economy and promote the market functions, SGE launched the gold option business by prices asking on February 2, 2015, on the basis of former products of gold spot, forward and swap by prices asking. The gold option by prices asking traded 14.46 tonnes for the whole year.

3.1.2 Gold prices asking transactions were launched on international board

The transactions of gold prices asking were launched on international board in 2015, and the first trading was made on the 12th of January. The products traded on the international board were further enriched. In 2015, the business of gold prices asking developed quickly, and the annual trading volume reached 3,050.47 tonnes.

3.1.3 The international board opened the business of Shanghai-Hong Kong Gold Connect

On July 10, 2015, Shanghai-Hong Kong Gold Connect was opened. The investors from the Chinese Gold and Silver Exchange Society (Hongkong) could trade on the international board of the SGE through the Shanghai-Hong Kong Gold Connect. After the launch of the Shanghai-Hong Kong Gold Connect, the operation went well. There were 20 members from the Chinese Gold and Silver Exchange Society (Hongkong) opened international trading accounts. The accumulative trading volume of gold through the Shanghai-Hong Kong Gold Connect was 5,102.00 kilograms, and trading value was 1.177 billion yuan.

3.2 The service system of the gold market was further improved

3.2.1 The business of assets as margin collateral was launched

In order to expand the service function of the market, the SGE issued the *Measures for the Administration of Margin Collateral Service of the Shanghai Gold Exchange* in September 2015, providing the service of accepting assets as margin collateral. It was clarified that the assets could be used as margin collateral were gold inventory, silver inventory, foreign currencies and securities. Currently, gold inventory was first accepted as margin collateral. The tradings with silver inventory, bonds, foreign currencies and others as margin collateral were promoted orderly right now. Market participants who used gold inventory as margin collateral, could get capital without any selling of gold inventory. It reduced the cost of capital by less taken as margin. Meantime, it increased the clients' investment scale and the flexibility of money usage, and promoted the market liquidity. The gold used as margin collateral on the main board of the SGE totaled 72 kilograms.

3.2.2 The trading system was upgraded

The SGE developed a safe and reliable third generation system with advanced framework, complete functions and excellent performance, in order to satisfy the requirements of business development and internationalization, and to meet the higher demands for the systematicness and stabilization of the system from the tradings of prices matching and asking, settlement and information registration. After the launch of the first phase of the third generation system in June 2015, the system continuously operated stable and various technical properties were obviously improved, safe and stable. The peak of the trade matching surpassed 4,000 deals per second, which placed a profound foundation for the improvement and upgrading of future system.

3.2.3 Further standardize the gold leasing business

The business of gold leasing is an indispensable supporting service of the gold market. In order to standardize the business development and prevent various kinds of risks, the SGE strengthened the risk management for the gold leasing transactions.

First, management before and during the leasing was strengthened, and business compliance was urged to be carried out. On the one hand, the Exchange strengthened the qualification tracing of suspicious lessee enterprises by ways of obtaining the materials of the enterprises' accounts opening and contracts of leasing from the lessor banks. On another hand, the Exchange could urge the compliance operation of the leasing to be taken by the lessor banks through telephone contacts, window guidance, interviews and other methods.

Second, self-check of the operation risks was taken and management after the leasing was strengthened. The SGE invited the lessor banks from time to time to have business meetings, getting to know the development of the leasing operation. It was clearly defined that the lessor banks should strictly adhere to the access criterion of the leasing, carry out self-check of the operation, assess the credit risks of gold leasing transactions, and trace the capital movement after the leasing. It was also required that the lessor banks should have a complete picture of the financial status, business operation, capacity of repayment, physical demand and other aspects of the lessee enterprises, and should report to the Exchange as well.

3.2.4 The mobile terminal of gold trading was launched

In December 2015, the SGE officially announced that the mobile terminal SGE Gold App. was launched and entered the trial operation phase. The SGE Gold App., the Internet Plus of the gold market and a mobile terminal software specially for trading, was jointly developed by the SGE and its members. The first registered members included Bank of China, Industrial Bank Co., Ltd., Shanghai Pudong Development Bank, China Everbright Bank, Ping An Bank, Postal Savings Bank of China, Bank of Ningbo, Haitong Securities Co., Ltd., etc.

The SGE Gold App., with its comprehensive functions and advanced system, supported many operating systems including Android and Apple iOS, and had the functions of market state, transactions, inquiry and information. The investors could trade by cellphone mobile terminal after activating online or open the accounts. It facilitated trading at the SGE for individual investment clients.

3.3 Gold Market participants became more diversified

In 2015, there were 7 securities companies newly joined the SGE. They were Orient Securities, GF Securities, Everbright Securities, etc. The members of securities companies totaled 13. At the same time, CITIC Trust and Ping An Trust were admitted as members. In 2015, 20 securities companies, fund companies, trust companies and other non-banking financial institutions made gold transactions at the SGE. The trading was mainly proprietary and totaled 467.38 tonnes of gold.

The participation of securities companies, fund companies and trust companies in the transactions at the SGE could give full play to the current advantages of their clients resources and business expansion, and promoted the activity of the market transactions. It could also expand the investment channels of the clients and the company itself, and optimize the investors structure of the gold market in our country.

4. The opening up state of the gold market

The international board of the SGE operated safe and stable as a whole after its launch. In 2015, international members increased more, international business developed well, trading scale steadily grew and international influence was further enhanced.

4.1 The participants on the international board further diversified

According to the market entry principles of “to be strict and prudent” and “according to class and level”, the gold international board gave priority to recruit the institutions investors that with international fame and good credit, and admitted international members and introduced international investors with high starting points, high standards and according to the plan in 2015. By the end of 2015, international members increased from 40 at the beginning of the year to 63, and 42 international clients took the international members as their agents.

4.2 The business of gold international board took its initial shape

After the launch of the international board, the trading scale grew steadily and the activity of the market kept on improving. In 2015, the gold traded on the international board totaled 4,795.02 tonnes and the trading value reached 1.14 trillion yuan.

4.3 The fund was transferred orderly and the clearing path was clear

The international board relied on FT accounts, and the path for fund clearing was clear. After its launch, the SGE approved 7 commercial banks including the Industrial and Commercial Bank of China and the Bank of China as the designated settlement banks for the international board to carry out fund settlement. By the end of 2015, international members had opened 108 FT accounts including 54 FTE accounts and 54 FTN accounts. The fund clearing of the international board and cross-region money transfer went smoothly.

4.4 The international board gradually became one channel of importing

After the launch of the international board, the gold physical delivery went smoothly, the designated vaults of the international board operated normally and the channels for physical imports were clear. In 2015, the gold load-out and load-in of the international board reached 185.38 tonnes and 206.88 tonnes respectively. The gold imports from the international board totaled 180.70 tonnes. The international board gradually became the new channel of importing gold for the commercial banks, and its functions as physical storing and transferring and as the channel of importing were further strengthened.

5. The development trend of the gold market

The strategy for opening up the gold market should be deepened, the improvement of the SGE international board should be accelerated, the launch of the gold fixing system quoted in RMB should be studied, more overseas investors participating in China's gold market should be introduced, and China's influence and discourse right at the international gold market should be promoted. The products system of the gold market should be improved, the products innovation should be strengthened, the current products should be further refined, and new products should be developed according to the market demands. The development of the market participants should move towards diversification and specialization. The participation of the financial institutions including securities, funds, trust and insurance in the gold market business should be accelerated. The channels for brokerage business should be improved and the investors structure should be optimized. The infrastructure construction of the gold market should further be improved, the Market Maker Rule of the prices asking market should be adopted, the construction of the medium and long term gold benchmark pricing system should be explored, the establishment of clearing mechanism for collective trusteeship should be promoted, and the system of warehousing and logistics should be improved. In the meantime, technology system construction should be strengthened to further promote the operation quality and service level of China's gold market. The work of publicity and education of the gold market should be carried on further, guiding the investors to participate in the gold market investment through formal channels, and helping the investors to form correct investment philosophy and promote self-awareness of risks.

Box 5 The Development of Gold Lease Business in China

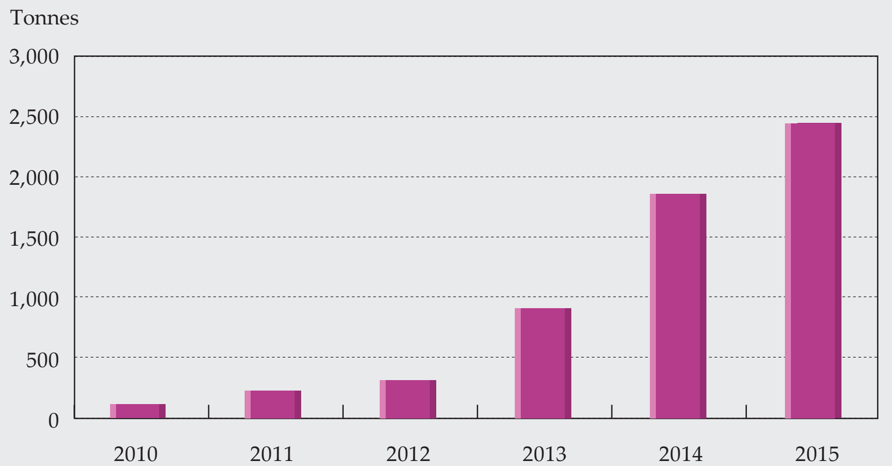
Gold Lease normally is the action that the commercial banks lease certain kind and quantity physical gold to the other banks or enterprises, and get back the physical gold and receive the agreed gold lease interest (or lease fees) according to the contract. According to different nature of trading partners, the inter-bank Gold Lease is called gold lending, while the business that commercial banks lease gold to gold related enterprises such as gold producing companies and gold consuming companies is called gold leasing. From the initial step in the eighties of the twentieth century, the international Gold Lease market has become an important component of the international gold market system after several decades of development, and the lease rate has also become a key benchmark rate of the gold market.

The business of Gold Lease started from 2005 in China and developed slowly at the initial stage. However, the Gold Lease business quickly accelerated its development since 2012, and currently it has formed the system of Gold Lease *business on the basis of the service platform of SGE lease system. In 2015, the total volume of Gold Lease business reached 2,431.93 tonnes, up 31.78% year-on-year.*

There are mainly two reasons for the fast development of Gold Lease business in the recent years. First, the gold price has entered downward track since the second half of 2011, the features of Gold Lease as lease sold or used first and bought back or returned when it is due can help the lessors prevent the risks of prices falling. Second, comparing with credit, bond, trust and other funding methods, the Gold Lease has comparative cost advantage, so more and more gold enterprises are inclined to reduce financing cost by using Gold Lease to promote operational efficiency.

The Gold Lease has following main characteristics during its fast development process. First, the participants have increased gradually and become more diversified. During the initial stage of Gold Lease development, the participants mainly were concentrated in commercial banks, gold producing enterprises and gold consuming enterprises. In the past two years, non-banking financial institutions including securities and funds opened Gold Lease business one after another. At the same time, gold trading enterprises has gradually become important participants of leasing and lending business. By the end of 2015, a total of 31 banks, 10 securities companies, 4 funds companies and over 1500 enterprises clients had participated in the Gold Lease business. Second, lease tenors concentrate on 6M and 1Y, the proportion of tenor between 6M to 1Y take up near 70%, next is the tenor between 3M to 6M, and the other tenors are few. Third, the lease rate was going on a downward trend, and the level of inter commercial banks gold lending rate was overall lower than the gold leasing rate that commercial banks offer to enterprises. In the November of 2015, the average interbank gold lending monthly rate was 2.09%,

Figure 6.11 The Gold Lease Volume, 2010—2015



while it was 3.26% in the same period of previous year. The average gold leasing monthly rate between banks and enterprises was 3.6%, while it was 4.32% in the same period of previous year. It was obvious that the overall level of the Gold Lease rate went down.

All in all, the Gold Lease business has become a link between the money market and the gold market. The development of the Gold Lease business is not only good for the improvement of the gold market system in China, it is also helpful to solve the problems of financing difficulty and expensive financing for gold enterprises, and to effectively support the healthy development of gold enterprises.

Part VII Futures Market

China's commodities futures products grew more diversified in 2015 with rising trading volumes and continued declines in the prices of most commodities futures. The type of financial futures products increased amid surging trading volumes. Policymakers released a spate of supporting policies to prepare for the launch of crude oil futures and kicked off the "futures+insurance+banking" pilots. The business rules for treasury bond futures products were amended and more commodities were available for continuous trading. Futures companies enjoyed greater access to investing and financing channels and expanded their business scopes. This improved the capability of the futures market to serve the real economy.

1. Operating performance of China's futures market

1.1 Operating performance of Commodities futures market

The total trading volume and turnover of China's commodities futures stood at 3,237 million lots and 136.47 trillion yuan in 2015, representing year-on-year growth of 41.46% and 6.64% respectively.

1.1.1 Trading volumes of different products diverged significantly

The top 10 most traded commodities futures by volume in 2015 include rebar, methanol, soybean meal, rapeseed meal, iron ore, PTA (pure terephthalic acid), white sugar, silver, LLDPE (linear low density polyethylene) and palm oil, with combined trading volume of 2,461 million lots, accounting for 76.02% of all commodities futures and compared to 69.39% in 2014. The top 10 products by turnover include copper, rebar, natural rubber, white sugar, iron ore, soybean meal, silver, methanol, gold and rapeseed meal, with combined turnover of 93.08 trillion yuan, accounting for 68.2% of total commodities futures in 2015 and compared to 65.76% in 2014.

Of all the major energy and chemicals futures products traded in 2015, bitumen, methanol, PP (polypropylene) and PTA saw volume soaring 4882.98%, 1178.70%, 333.85% and 96.45% year-on-year, respectively. The trading volume of LLDPE climbed more than 30% year-on-year while PVC (polyvinyl chloride) volume only edged up by a small margin. Natural rubber saw trading volume down 6.28% year-on-year while glass, thermal coal, coking coal and coke saw trading volume plummeting more than 50% year-on-year.

Of all the major metal futures products traded in 2015, iron ore volume surged 169.38% year-on-year, aluminum, hot rolled coils and rebar volumes invariably went up by more than 30% year-on-year, copper, zinc and gold volumes inched up slightly while lead and silver volumes tumbled.

Of all the major agricultural futures products traded in 2015, corn and white sugar volumes surged 351.13% and 91.67% year-on-year, respectively. Corn starch was actively traded with total trading volume at 27,053,600 lots. The trading volumes of soybean oil, soybean meal and palm oil rose more than 30% year-on-year. By contrast, the volumes of rapeseed meal, No.1 cotton, No.2 soybean and rapeseed oil fell to different extents while the trading volumes of wheat WH and eggs dropped by more than 50% year-on-year.

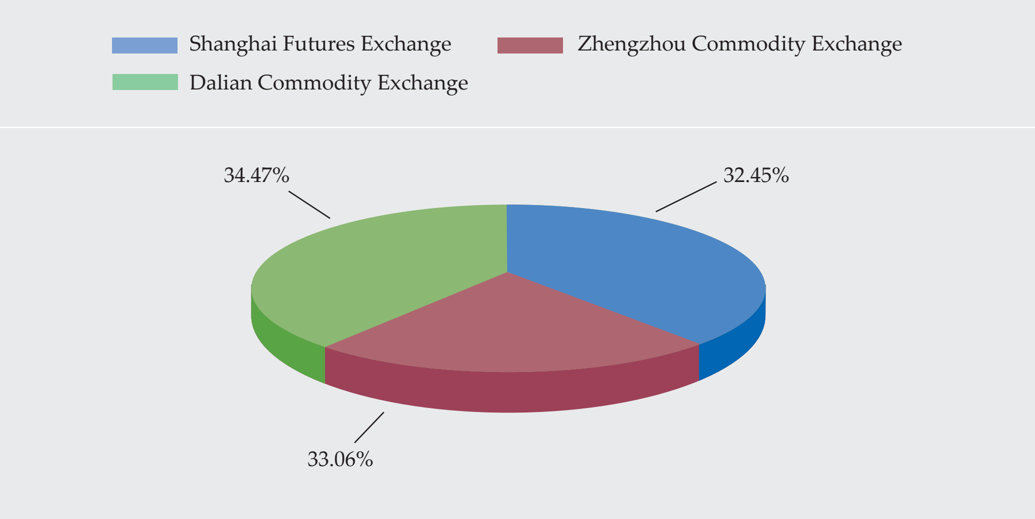
Of the three futures exchanges in China, the Shanghai Futures Exchange reported total trading volume of 1,050 million lots and turnover of 63.56 trillion yuan in 2015, increasing by 24.72% and 0.51% year-on-year respectively and accounting for 32.45% and 46.57% of all domestic futures markets. The Zhengzhou Commodity Exchange reported total trading volume of 1,070 million lots and turnover of 30.98 trillion yuan, increasing by 58.25% and 38.95% year-on-year respectively and accounting for 33.06% and 22.7% of all domestic futures markets. The Dalian Commodity Exchange reported total trading volume of 1,116 million lots and turnover of 41.94 trillion yuan, increasing by 45.06% and 1.06% year-on-year respectively and accounting for 34.47% and 30.73% of all domestic futures markets.

1.1.2 Prices of most futures continued their downward spiral

Overcapacity remained a prominent issue for steel mills in 2015 due to subdued domestic demand. Despite the trend of falling capacity utilization, destocking progress were slow. The sluggishness in the steel sector also weighed on iron ore prices. As of the end of 2015 the prices of rebar, iron ore and hot rolled coils fell 30.01%, 35.1% and 32.79%, respectively.

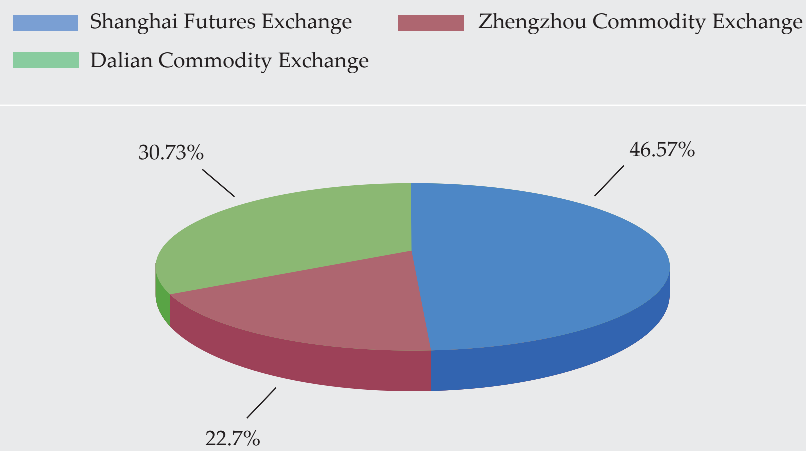
Non-ferrous metal prices came under pressure due to major constraints including the economic slowdown in China, a stronger dollar and excess supply. As of the end of the

Figure 7.1 Volume Breakdown by Commodities Exchange in 2015



Source: China Futures Association.

Figure 7.2 Turnover Breakdown by Commodities Exchange in 2015



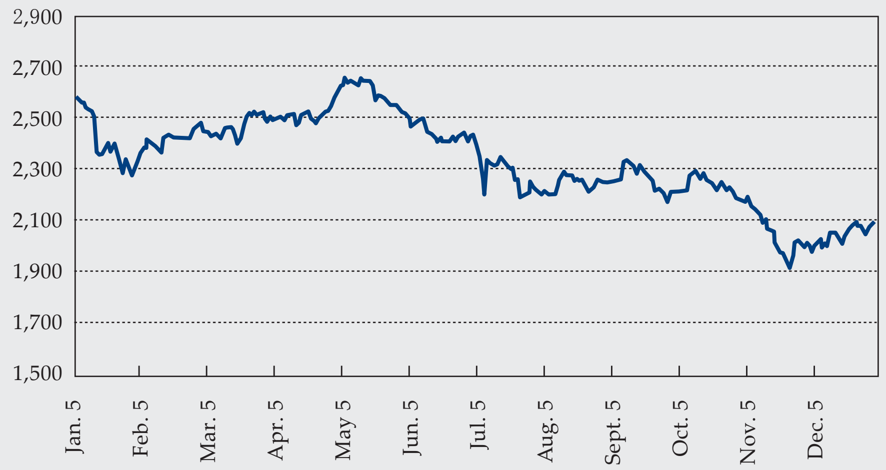
Source: China Futures Association.

year the non-ferrous metals index tumbled 14.15%. Prices of all non-ferrous metals (except for lead) started to fall after rising slightly in 2015, with copper, aluminum, zinc, tin and nickle futures prices sliding 19.29%, 16.3%, 19.8%, 21.76% and 30.46% respectively by the year end. Lead prices picked up by 6.01% and outperformed other base metals mainly as a result of falling production of lead and lead concentrates over the past two years following the shutdowns of lead miners and producers amid rising processing charges, tougher environmental regulations and the cutting back on tax subsidies.

The futures prices of precious metals tumbled in 2015 as a result of the anticipated rate hikes of the U.S. Fed and a stronger U.S. dollar index. Physical gold demand fell in both China and India, and investment demand also went down globally. Silver remained in oversupply amid stable industrial demand but weak jewelry consumption. As of the end of the year, gold and silver prices fell 6.26% and 5.89% respectively, and the Nanhua Precious Metals Index lost 9.5%.

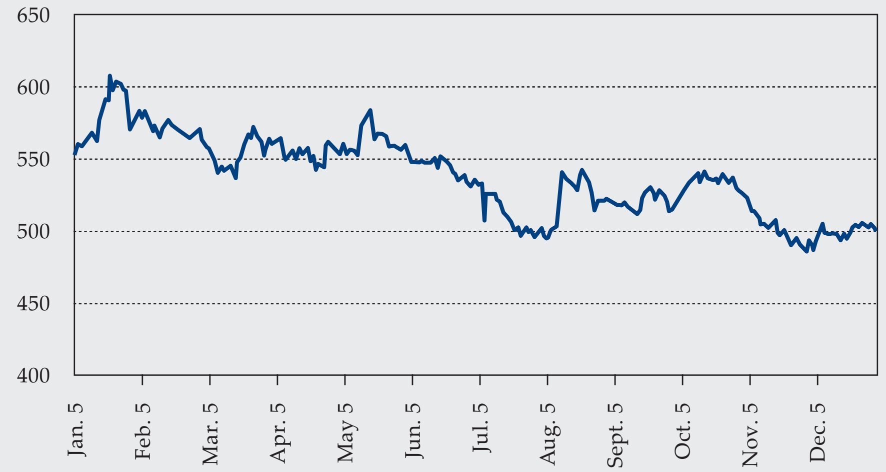
The three major energy futures products, namely coke, coking coal and thermal coal, plummeted sharply by 37.38%, 23.33% and 36.53% respectively as of the end of the year amid lackluster power consumption growth across China and lower downstream steel output. Affected by the real supply-demand dynamics and China's economic conditions, natural rubber and bitumen prices witnessed a quick fall after rising for the first four months, and lost 20.65% and 45.53% respectively as of the end of the year. Despite the destocking efforts, PTA supply and demand remained downbeat. The futures prices of PTA first rose and then fell, finishing the year down 5.38%. As of the end of 2015, the energy and chemical products futures index of the China Futures Market Monitoring Center (CFMMC) declined by 7.67%.

Figure 7.3 Performance of the SHFE Non-ferrous Metals Index in 2015



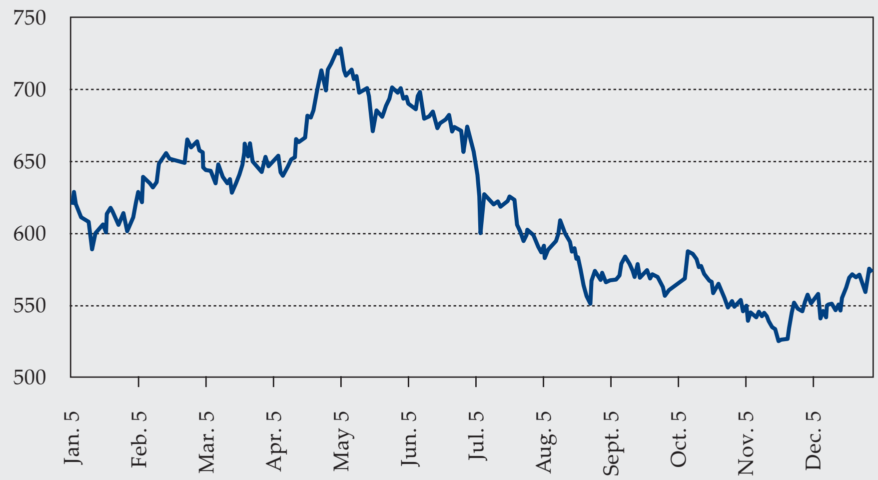
Source: Wind Information, Shanghai Futures Exchange (SHFE).

Figure 7.4 Performance of the Nanhua Precious Metals Index in 2015



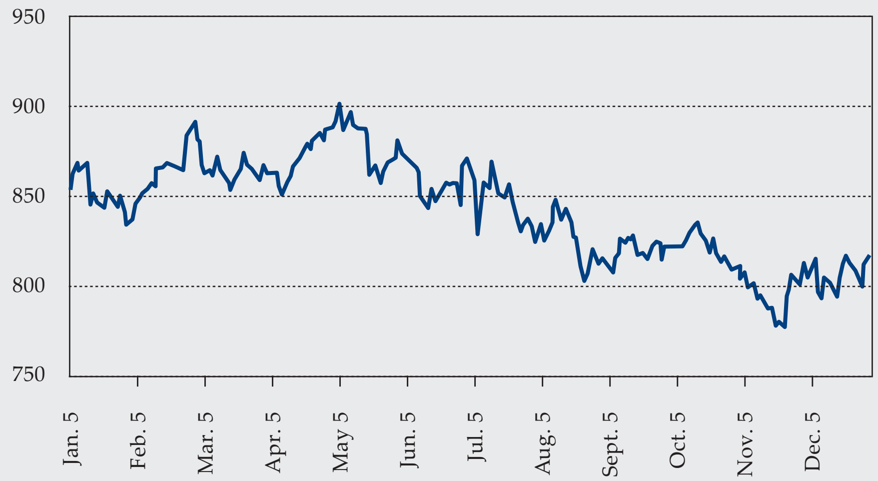
Source: Wind Information.

Figure 7.5 Performance of the CFMMC China Energy and Chemical Products Futures Index in 2015



Source: Wind Information.

Figure 7.6 Performance of the CFMMC China Agricultural Products Futures Index (CAFI) in 2015



Source: Wind Information.

The futures prices of agricultural products came in mixed in 2015. Cotton prices plunged in general as a result of multiple negative factors including the global oversupply, China's abolishment of the government purchase and stockpiling policy, and the high inventory-to-consumption ratio. Cotton futures prices fell 12.38% by the end of 2015. White sugar prices rose 24.26%, driven by falling inventory levels and the rebalancing of supply and demand. Soybeans and soybean meal prices went down by 19.42% and 15.94% respectively amid higher international production and rising plantation acerage. Corn prices became surpressed after rising in the first half of the year and plummeted in July following the abolishment of China's government purchase and stockpiling policy to close the year down 20.29%. Underpinned by China's minimum purchase price policy, wheat futures prices went up amid fluctuations in the first half before stabilizing in the second half and closing the year up 13.96%. Overall the CFMMC China Agricultural Products Futures Index (CAFI) lost 4.46% as of the end of 2015.

1.2 Operating performance of financial futures markets

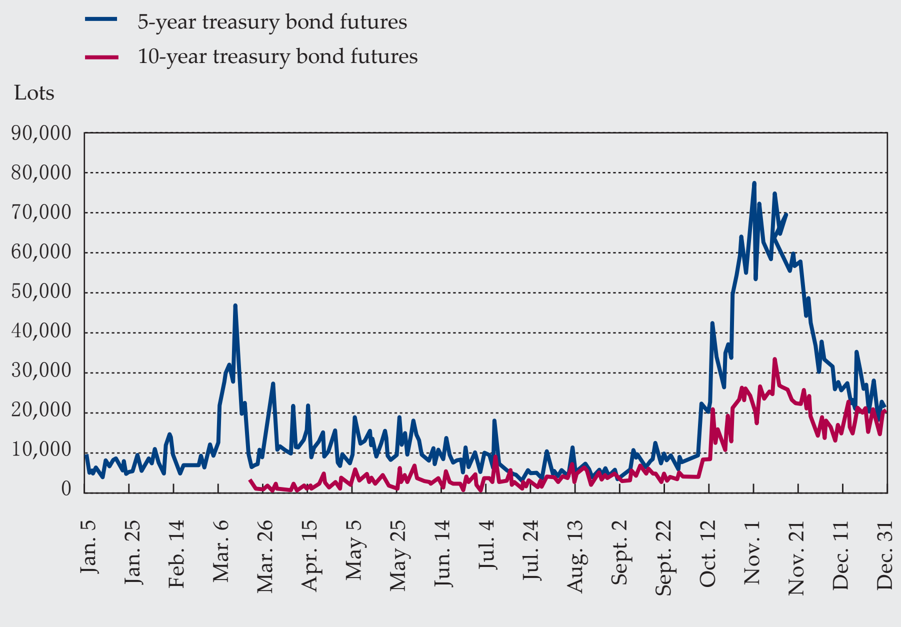
The total trading volume and turnover of China's financial futures markets in 2015 stood at 341 million lots and 417.76 trillion yuan, jumping 56.66% and 154.71% year-on-year respectively. As of the end of 2015, a total of 329,000 accounts (up 51% year-on-year) were opened on the financial futures markets, inclusive of 306,000 natural persons, 15,000 special legal persons, 5,000 general legal persons and 3,000 asset management accounts.

1.2.1 Treasury bond futures products diversified further amid growing trading volumes

In 2015 the China Financial Futures Exchange (CFFEX) amended and optimized the 5-year Treasury Bond Futures Contract and its trading rules, and launched the 10-year Treasury Bond Futures Contract on this basis. The 10-year contract gained a very good head start, with rational market participation and reasonable open interest structure, helping the market to play its role properly.

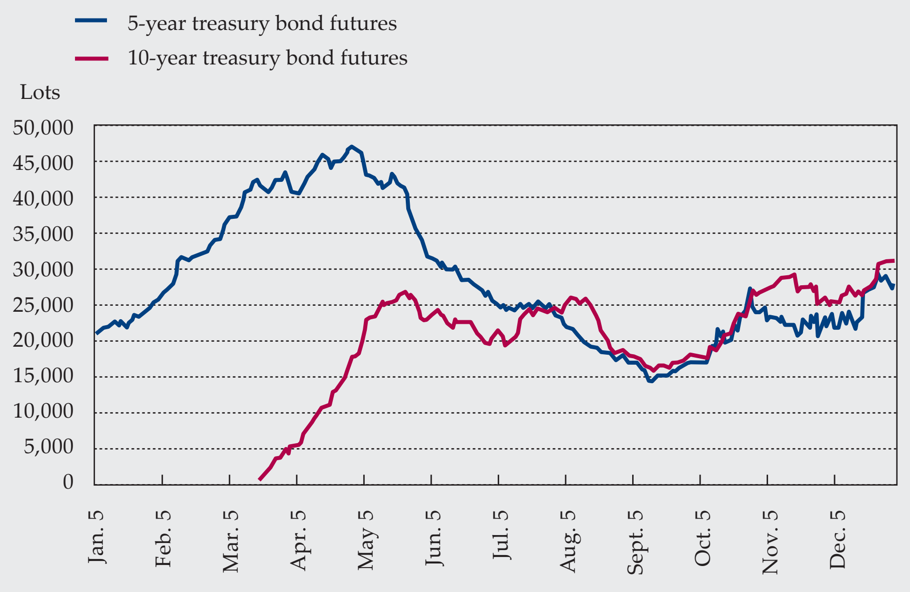
With the amendment of the contract and the diversification of products, the open interest of treasury bond futures grew steadily in 2015 amid smooth contract delivery and strengthened interaction between spot goods and futures. In 2015 the trading volume of treasury bond futures stood at 6.08 million lots in total or 24,935 lots on daily average, surging 562% year-on-year. Total turnover came in at 6.01 trillion yuan and daily average turnover amounted to 24.62 billion yuan, soaring 587% year-on-year. As of December 31, the total open interest of treasury bond futures contracts stood at 58,594 lots (up 172% versus the end of 2014), inclusive of 27,614 lots of the 5-year contract and 30,980 lots of the 10-year contract. Price volatilities were small throughout the year, with close interaction between spot goods and futures. The daily average price change and average basis of the main 5-year contract were 0.21 yuan and 0.47 yuan respectively, as compared to 0.26 yuan and 0.59 yuan of the 10-year contract. The correlation between the yields of futures and spot trading was 93.59% for the 5-year contract and 93.21% for the 10-year contract. A total of six treasury futures contracts had been successfully delivered since the start of 2015, consisting of 5,298 lots and indicating an average delivery ratio of 3.47%. The delivery process went on smoothly and investors remained rationale in their delivery activities.

Figure 7.7 Daily Trading Volume of Treasury Bond Futures in 2015



Source: China Financial Futures Exchange.

Figure 7.8 Daily Open Interest of Treasury Bond Futures in 2015



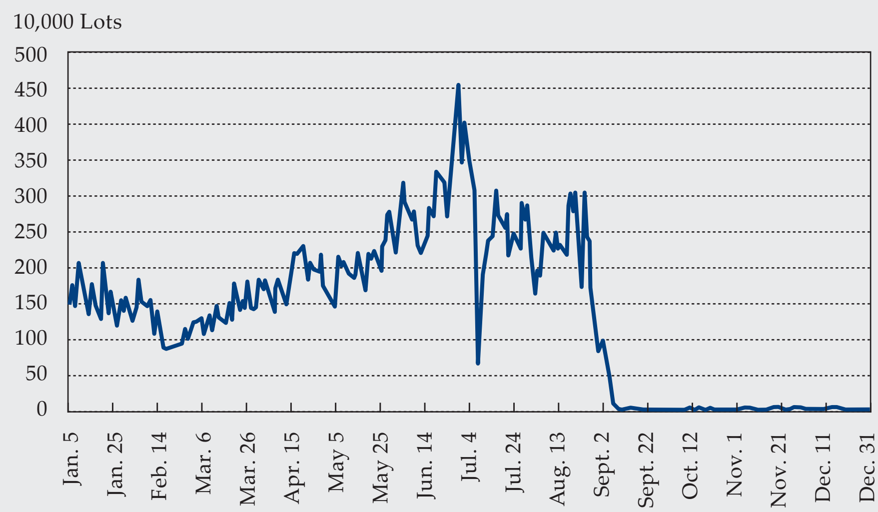
Source: China Financial Futures Exchange.

1.2.2 Two new stock index futures products were launched and fared well thanks to stringent regulation and control

The launch of the SSE 50 Index Futures and the CSI 500 Index Futures on April 16, 2015, further enriched and consummated the equity market risk management system and expanded the stock index futures' coverage of the spot equity market.

During January to mid-June 2015, China's stock markets surged quickly with frequent trading and investing activities. The trading volume of the stock index futures markets picked up dramatically. During this period, the daily average trading volume of the stock index futures markets stood at 1,745,700 lots, daily average open interest was 255,400 lots, and daily average turnover amounted to 2.22 trillion yuan, representing year-on-year growth of 97.4%, 55.5% and 233.88% respectively. From mid-June to the end of August, the stock market and stock index futures markets slumped and suffered abnormal fluctuations. The trading volume of stock index futures amplified significantly and became the "fire escape" for investor seeking risk aversion. The short-selling pressure from the stock market resulted in a sharp discount and the daily average trading volume, open interest and turnover during this period stood at 2,570,400 lots, 184,900 lots and 3.03 trillion yuan respectively. In response to the abnormal fluctuations in the stock market, the China Financial Futures Exchange (CFFEX) followed the central arrangement of the China Securities Regulatory Commission (CSRC) to phase in a series of tougher regulatory measures, including raising the margin requirement, tightening oversight of abnormal transactions, marking up the fees of intra-day liquidation, implementing differentiated fee rates, and amending hedging and arbitrage policies. The trading volume and

Figure 7.9 Daily Trading Volume of Stock Index Futures in 2015



Source: China Financial Futures Exchange.

Figure 7.10 Daily Open Interest of Stock Index Futures in 2015

Source: China Financial Futures Exchange.

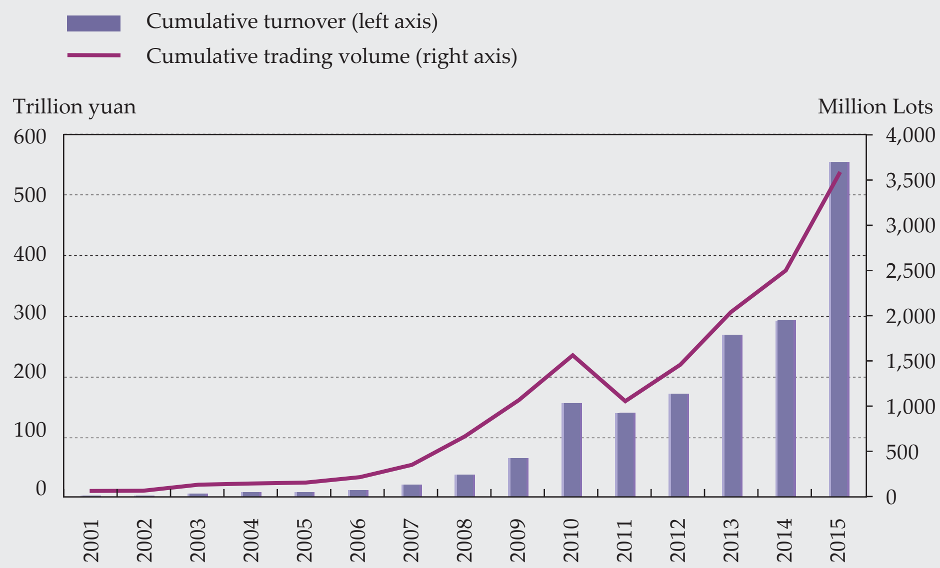
open interest both fell significantly following these measures. From September 7 to the end of December, the daily average trading volume fell to 37,500 lots, daily average open interest was 74,500 lots and the volume to open interest ratio dropped to 0.5.

2. Operating characteristics of China's futures markets

2.1 Trading volumes surged

In 2015 the trading volume and turnover of China's futures markets both increased dramatically and reached 3,578 million lots and 554.23 trillion yuan, up 42.78% and 89.81% year-on-year respectively as of the end of December. Among others, the financial futures markets saw trading volume and turnover surging 56.66% and 154.71% year-on-year to 341 million lots and 417.76 trillion yuan respectively, outpacing the commodities markets, which saw trading volume and turnover rising 41.46% and 6.64% year-on-year. Futures trading gained growing popularity among more types of investors and corporate entities, and the trading volume hit a historical high on multiple catalysts, including the growing number of financial futures products, the turbulence of spot trading on the stock market, the availability of more commodities futures products for continuous trading, the release of the *Interim Provisions on the Accounting Treatment of the Hedging Operations of Commodity Futures*, the innovative operations such as asset management and risk management of futures companies starting to take shape and breakthroughs in launching commodity-based futures ETFs (exchange-traded funds).

Figure 7.11 Trading Volume and Turnover of China's Futures Markets During 2001—2015



Source: China Financial Futures Exchange.

2.2 Product offerings continued to diversify

In 2015 there were five new products being listed and traded on China's futures markets, which further diversified the catalogue of futures products. On March 20, the 10-year treasury bond futures contract was listed on the China Financial Futures Exchange (CFFEX) as a derivative product of the major tenor treasury bonds. The addition of this product not only contributed to the treasury bond yield curve which reflects the supply-demand dynamics, but also helped diversify investors' trading strategies. As of the end of December, the trading volume of the 10-year treasury bond futures contract totaled 1,683,900 lots, with total turnover at 1.65 trillion yuan. On March 27, the nickel and tin futures products were listed and started trading on the Shanghai Futures Exchange. Thus far, all of the six base non-ferrous metals (i.e. copper, aluminum, zinc, lead, nickel and tin) became available for trading on the Chinese futures markets, which reinforced the capability of non-ferrous metals futures products to serve the real economy. As of the end of December the two new commodities products brought total trading volume of 64 million lots and combined turnover of 5.26 trillion yuan. On April 16, the SSE 50 Index Futures and the CSI 500 Index Futures were listed on the China Financial Futures Exchange. This effectively extended the depth and breadth of the stock index futures markets and complied with the capital markets' requirement for sophisticated risk management. As of the end of December, the SSE 50 Index Futures and CSI 500 Index Futures contracts saw trading volume of 35 million lots and 22 million lots,with total turnover of 30.69 trillion yuan and 39.15 trillion yuan respectively.

3. Institution building and infrastructure construction of the futures markets

3.1 Preparing for the launch of crude oil futures

As China's first internationalized futures product, crude oil futures requires a series of supporting policies to pave the way for its listing. During March to August 2015, the Shanghai International Energy Exchange Corporation (INE) successively solicited public comments on the trading rules of crude oil futures, special participants management rules, trading participant eligibility management rules as well as management rules in relation to trading, settlement, delivery, risk control and futures contract. On June 26, 2015, the China Securities Regulatory Commission (CSRC) released the *Interim Measures for the Administration of Overseas Traders' and Overseas Brokers' Engagement in the Trading of Specified Domestic Futures Products* (CSRC Decree No. 116), effective on August 1, 2015. During the same period, other government departments including the Ministry of Finance, State Administration of Taxation, People's Bank of China, State Administration of Foreign Exchange and General Administration of Customs issued supporting policies, setting out the rules on crude oil futures' bonded delivery supervision and levies on value-added tax, cross-border settlement of crude oil futures and foreign exchange issues faced by overseas traders and brokers engaging in crude oil futures trading. As of the end of August, all the basic policies required for the listing of crude oil futures had been released, and 12 rules and detailed administrative measures in relation to the trading of crude oil futures had been closed for public consultation by the end of September. At this point the crude oil futures contracts and basic rules had been largely clarified and all supporting policies had been put in place.

3.2 Kicking off the "futures + insurance + banking" pilots

In 2015, the regulators kicked off the "futures + insurance" and "futures + insurance + banking" pilots in a bid to explore how the cooperation between futures, insurance and banking sectors could serve the agricultural industry, the rural areas and farmers, which is a positive attempt at expanding the roles of the futures markets in relation to China's rural issues. On August 14, PICC Property and Casualty Company Limited (PICC P&C) Dalian Branch entered into insurance contracts concerning egg prices and corn prices with Beijing Vicagroup as well as Jinzhou Yixian Guiyong Corn Plantation Cooperative and Yixian Huamao Grain Plantation Cooperative. The insurer also inked a business cooperation agreement with Xinhu Futures Co., Ltd to transfer compensation risks by capitalizing on the futures and other derivatives markets. On September 17, PICC P&C Hubei Branch executed an egg price insurance contract with Hubei Jiahemei Food Company Limited. The Hubei Branch of Agricultural Bank of China was brought in to provide the insured with funding support for its premium payment.

3.3 Amending business rules and regulations for treasury bond futures

On February 27, 2015, the China Financial Futures Exchange unveiled *the revised 5-year Treasury Bond Futures Contract, the Detailed Trading Rules for 5-year Treasury Bond Futures Contract* and *the Detailed Delivery Rules for 5-year Treasury Bond Futures Contract*. Specific revisions include: 1) lifting the minimum price change unit from 0.002 yuan to 0.005 yuan; 2) changing the deliverable treasury bonds from "book-entry interest-bearing treasury bonds with a residual maturity of

4-7 years upon the first day of the Contract's expiring month" into "book-entry interest-bearing treasury bonds with a residual maturity of 4-5.25 years upon the first day of the Contract's expiring month"; 3) cutting the trading margin from 1.5% to 1.2%, and adjusting the maximum daily price fluctuation limit from ±1.5% to ±1.2%; and 4) revising the delivery mode from tender notice from both buyers and sellers to sellers only. The revision to the trading rules for the 5-year treasury bond futures contract aligned with the development of the market and could help extend market depth and improve market efficiency. On June 12, 2015, the China Financial Futures Exchange released *the revised Detailed Clearing Rules of China Financial Futures Exchange* and *the Measures of China Financial Futures Exchange on Risk Management*, announcing the implementation of the "one-way larger-side margining requirement" for the clearing of listed treasury bond futures products starting from July 10, 2015. Margins saved following the implementation of the new requirement accounted for 11% of the total margin amount of the product category. The market cost was brought down effectively.

3.4 Expanding the coverage of products available for continuous trading

Since the launch of the continuous trading pilot by the Shanghai Futures Exchange in July 2013, all the other commodity futures exchanges followed suit in 2014 and further increased the number of products available for continuous trading in 2015. Among others, the Shanghai Futures Exchange kicked off after-hours trading (or night trading) for the newly-launched nickel and tin futures products in 2015, while the Zhengzhou Commodity Exchange initiated night trading for rapeseed oil, glass and thermal coal futures on June 11, 2015. As of the end of 2015, a total of 28 products were available for continuous trading on the three futures exchanges in China. These include 12 products on the Shanghai Futures Exchange, i.e. gold, silver, copper, aluminum, lead, zinc, rebar, hot rolled coils, natural rubber, bitumen, tin and nickel; eight products on the Dalian Commodity Exchange, i.e. palm oil, coke, soybean meal, soybean oil, No. 1 soybean, No. 2 soybean, coking coal and iron ore; and eight products on the Zhengzhou Commodity Exchange, i.e. white sugar, cotton, rapeseed meal, methanol, PTA, rapeseed oil, glass and thermal coal.

3.5 Supporting the innovations and development of futures companies

In mid April 2015, the China Futures Association issued a circular granting futures companies and their asset management products access to the national interbank bond market. This further expanded the investment channels for the proprietary funds and asset management products of futures companies, and was an important initiative to support futures companies to perform better and grow stronger. On April 7, the China Futures Association published the *Administrative Rules on the Subordinated Debts of Futures Companies*, clarifying applicable rules for futures companies to strengthen their capital position via subordinated debts. Four futures companies including Fortune Futures (renamed to CICC Futures afterwards) successfully borrowed subordinated debts in May, and the first subordinated bond was issued by a futures company in June. On April 8, the China Futures Association released the Rules and Operational Guidance on the Internet Account Opening of Futures Companies. On July 10, the cloud platform for internet account opening was launched for trial run on PC terminals, followed by the test run on mobile phones on December 18. Such online account opening could help futures companies reduce operating costs while expanding their service capabilities. Additionally, the *Rules for Futures Companies on Undertaking Intermediary Businesses* and the *Rules for Futures Companies on Agency Sale of Financial Products* drafted by the China Futures Association were released for public comments on August 27, which would likely bolster the integrated operating capabilities of futures companies.

4. Futures market outlook

We should push ahead with the development of the futures and derivatives markets appropriately. To adapt to the requirement of financial reform and risk management, it is advisable to properly prepare for the launch of strategic futures products such as crude oil futures and push for the piloting of agricultural futures and options for products like white sugar and soybean meal on the basis of full risk assessments and strict preventive measures. More efforts are required in developing commodities index futures and interest rate and foreign exchange futures. Innovative pilots including “futures + insurance”, “grain banks”, “basis quote” and “inventory management” shall be carried forward steadily to further expand the channels and mechanism for the futures market to serve the agriculture, rural areas and farmers. We should study the feasibility of carbon emissions futures trading and explore the possibility of using a market-oriented mechanism to promote green development. Additionally, strengthening the management of transactions on the futures markets is critical. We may formulate detailed administrative rules on accounts involving actual control relationships and regulatory rules on abnormal transactions, and amend the identification criteria and measures on self-discipline and self-regulation. Stock index futures trading shall be standardized with the open interest percentage and spot-futures ratio being reasonably controlled so as to effectively refrain investors from overspeculation.

Part VIII Financial Derivatives Market

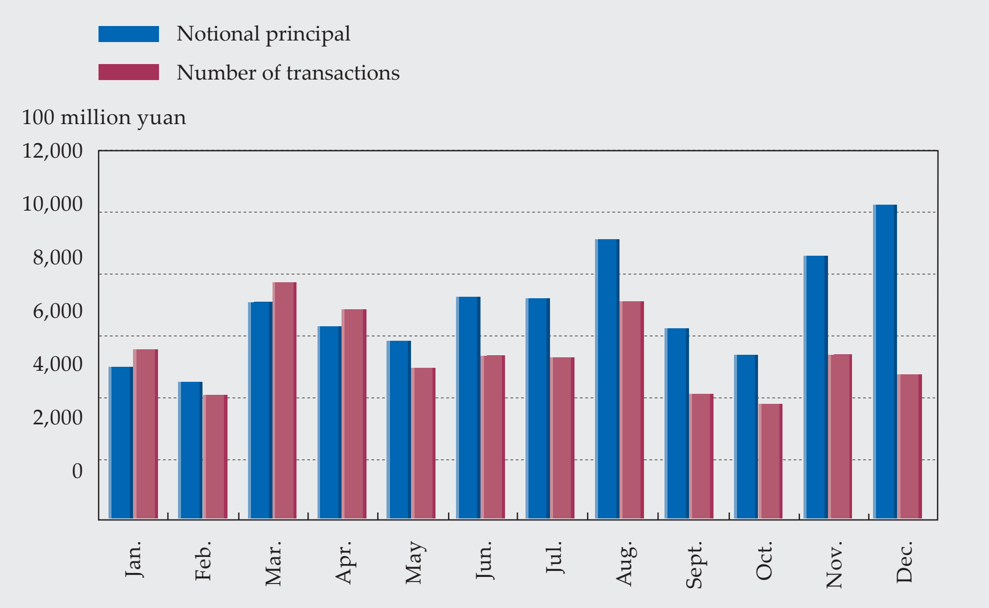
In 2015, China's financial derivatives market continued the steady and sound development. Market size grew steadily, and trading became more brisk. The trading volume of ordinary interest rate swaps hit the record high and market innovation was further enhanced. Meanwhile, the trading volume of exchange rate derivatives climbed up continuously, exchange rate options trading was brisk and exchange rate flexibility strengthened. In addition, the trading products of OTC shipping and commodity financial derivatives were more diversified. The trading on the foreign currency pair derivatives market was active, and the trading volume reached the peak.

I. RMB interest rate derivatives market

1.1 Market performance

In 2015, the trading on the interbank RMB interest rate derivatives market was active, with accumulative trading reaching 8.8 trillion yuan, up 117.2% year on year. Among the total, the trading value of ordinary interest rate swaps, standardized interest rate swaps and standardized bond forwards stood at 8.3 trillion yuan, 501.4 billion yuan and 1.96 billion yuan respectively. There was no trading for forward rate agreements (FRAs). By end-2015, the notional principal of uncovered ordinary

Figure 8.1 Monthly Turnover of Interest Rate Swaps in 2015



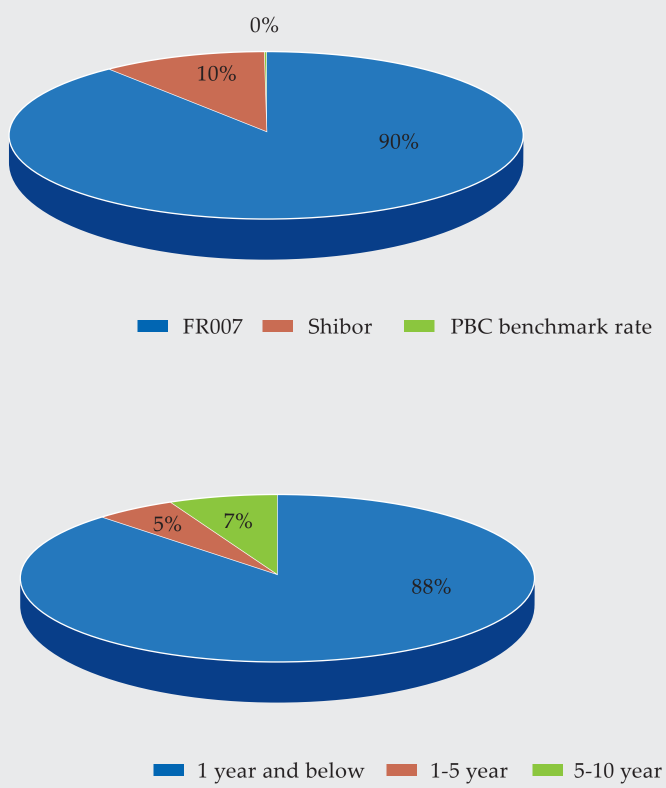
Source: China Foreign Exchange Trade System (CFETS).

interest rate swaps (one side) registered 6.4 trillion yuan, adding 2.6 trillion yuan from the end of last year.

In 2015, the monthly turnover for ordinary interest rate swaps hit new highs successively, and exceeded 1 trillion yuan in December, almost 1 time more than the previous highest record in December of 2014. Due to holiday factors, the monthly turnover dropped markedly in September and October, but resumed the growth momentum in November.

Ordinary interest rate swaps were the dominant derivatives product, accounting for 94.3% of total transaction. In respect of term structure, short-term products made up the largest share in ordinary interest rate swaps. The notional principal of products with maturity of or below 1 year accounted for 88% of total transactions, up 9 percentage points year on year. The share of products with maturity between 1–5 years and 5–10 years was 5% and 6.9% respectively. In respect of floating reference rates, the share of interest rate swaps with reference to FR007

Figure 8.2 Product (above) and Maturity (below) Breakdown of Interest Rate Swaps Turnover in 2015



Source: China Foreign Exchange Trade System (CFETS).

continued to grow, standing at 89.5%, while those with reference to Shibor (including overnight and 3-month) dropped substantially, standing at 10.1%. Interest rate swaps with reference to the PBC benchmark rate made up 0.3%. In respect of institution type, foreign-funded banks were still the main player, with notional principal accounting for 33.7% of total trading value. They were followed by domestic shareholding banks, urban commercial banks, and large-scaled commercial banks, with trading value accounting for 31.2%, 15.7% and 9.6% respectively of total trading value.

By end-2015, a total of 134 institutions, covering banking financial institutions, securities companies and other types of institutions, were filed for interest rate swaps trading, adding 26 institutions from end-2014. 102 institutions signed Function Use Commitment Letter, adding 12 from end-2014. 57 institutions completed institutional filing on the FRAs market, flat with the previous year, and banking financial institutions and securities companies were the main players.

1.2 Features of RMB interest rate derivatives market operation

1.2.1 Turnover climbed up, and hit new highs repeatedly

In 2015, the trading volume of the interest rate derivatives market continued to climbed up, and set new records repeatedly. Take ordinary interest rate swaps as an example, the accumulative trading in the whole year registered 8.3 trillion yuan, up 104.9% from the previous year. In terms of monthly trading value, the year-on-year growth in six months of 2015 exceeded 100%. In particular, the trading value in March and August posted 708.2 billion yuan and 911.6 billion yuan, up 119% and 222.4% respectively from the previous year. On the X-swap platform, a total of 9,544 transactions were concluded in 2015, and relative notional principal registered 2,128.4 billion yuan, accounting for 25.8% of ordinary interest rate swaps trading. This also represented a substantial growth of 420.5% from the level of 408.9 billion yuan (5,937 transactions) in 2014.

In addition, standardized interest rate swaps market was brisk distinctively. 994 transactions were concluded for the whole year, with accumulative turnover reaching 501.4 billion yuan, accounting for 5.7% of the total transactions on the interest rate derivatives market. In particular, the turnover of one-month standardized overnight index swaps(SS011M), with overnight Shibor as the reset rate, reached 487.55 billion yuan, accounting for 97.2% of total standardized interest rate swaps transactions.

1.2.2 Interest rate swaps curve moved downwards amid fluctuation

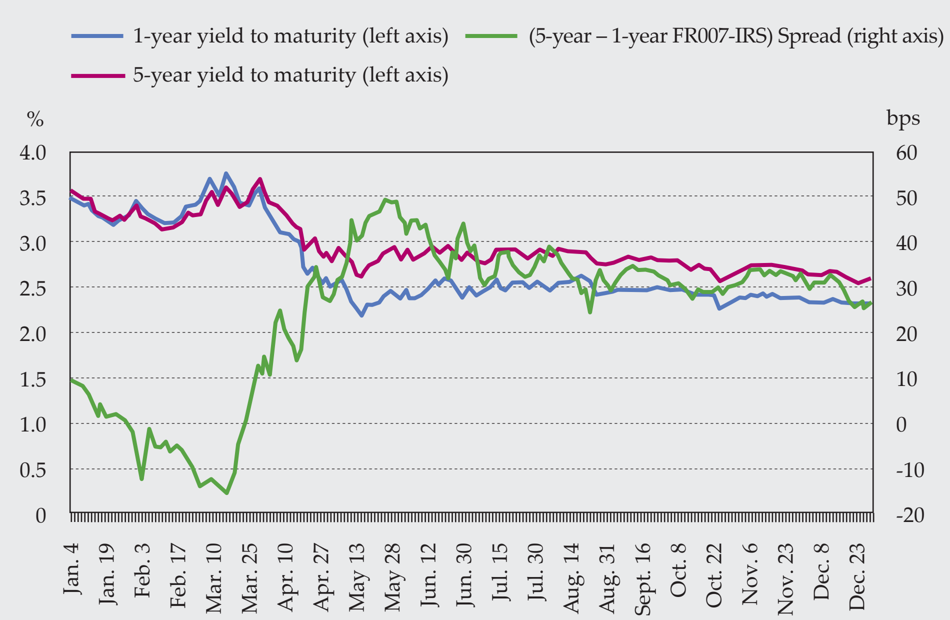
Affected by factors like weak macroeconomic development, accommodative monetary policy by the PBC, and overall abundant liquidity in the banking system, interest rate swaps curve moved downwards amid fluctuation in 2015. From January to mid-February, led by the downward movement of short-term funding rate, the 1-year FR007 swap rate dropped to 3.18% from 3.47%, and 5-year swap rate fell to 3.13% from 3.56%. From mid-February to March, affected by factors like the spring festival holiday, the partial improvement of the economic fundamentals, and the successive expansion of economic stimulus policies, 1-year FR007 swap rate once bounced back to 3.75%, and 5-year swap rate rose to the annual peak of 3.69%. From April to May, with the continuous weakening of economic fundamentals, reduction of interest rate and reserve requirement by the PBC and abundant liquidity, swaps rate witnessed a round of marked drop. By end-May, 1-year FR007 swap rate dropped substantially to 2.43%, and 5-year swap rate fell to 2.91%. From June on, as the expectation for more accommodative monetary policy weakened, swap rates corrected amid fluctuation, and 1-year FR007 swap rate fluctuated between 2.3% to 2.5%. In October, the PBC reduced interest rate and reserve requirement again, and as the economic development was still weak, interest rate swaps curve moved downwards again. It maintained the dipping momentum until the year-end. By the end of 2015, the 1-year FR007 swap rate and 5-year swap rate was 2.32% and 2.58%, dropping 115 bps and 98 bps respectively from the beginning of the year.

In terms of maturity spread, at the beginning of 2015, the spread between 1-year and 5-year swap rates remained low, and was within 10 percentage points. The swap rates once even became inverted. From April to June, as the short-end interest rate dropped quickly, the spread widened quickly as well, reaching the peak of 49 percentage points. From July on, the interest rate swap market was relative quiet. The spread fluctuated between 30-40 percentage pints, and narrowed to about 26 percentage points at the year-end.

1.2.3 Market participants grew in number and the type of institutions became more diversified

Participants on the interest rate derivatives market continued to expand. By end-2015, 134 institutions were filed for RMB interest rate swaps trading, adding 26 institutions from the end of 2014. 102 institutions signed Function

Figure 8.3 Movement and Interest Rate Spread of 1-year and 5-year FR007-IRS in 2015



Source: China Foreign Exchange Trade System (CFETS).

Use Commitment Letter, adding 12 institutions from the end of 2014. 57 institutions completed institutional filling on the FRAs market, with banking institutions and securities firms as the main market players.

The type of institutions became more diversified. When interest rate swaps were launched initially, banking institutions were the main market players, and then other types of institutions such as insurance companies, securities companies, finance companies, asset management companies participated in the trading. Securities companies, in particular, were more active in the interest rate swaps market. By end-2015, among those filed for RMB interest rate swaps trading, 47 institutions were securities companies, accounting for 35% of the total. In terms of trading share by different participants, foreign-funded banks were traditionally the main trader. But with the diversification of market participants, the share of turnover by foreign-funded financial institutions was 33.7% in 2015, down by 14 percentage points from the level of 48.5% in 2014. At the same time, domestic-funded institutions, joint-stock commercial banks, urban commercial banks and large-scaled commercial banks in particular, grew substantially in turnover shares, standing at 31.2%, 15.7% and 9.6% respectively.

1.2.4 Centralized clearing became the main clearing method for ordinary interest rate swaps

By end-2015, a total of 63,600 transactions were concluded on centralized compulsory clearing, with notional principal reaching 8.12 trillion yuan and relative clearing amount accounting for 97.83% of total transactions. Specifically, 33.5 thousand transactions were concluded in the first half of 2015, involving 3.48 trillion yuan. This represented a month-on-month increase of 55.3%, and a year-on-year growth of 5,319.12%. In the second half of 2015, 30.1 thousand transactions were concluded, involving 4.64 trillion yuan. This represented a month-on-month increase of 33.26%, and a year-on-year growth of 106.95%. In respect of both total clearing and transaction amount, relative data grew significantly.

By end-December of 2015, a total of 95 institutions, including 54 banking institutions, 38 securities companies, and 3 financial institutions of other types participated in the centralized clearing for interest rate swaps. The share of clearing amount by banking institutions dropped from 64.10% at end-2014 to 56.84%, and the share of securities companies grew from 34.62% to 40%. On one hand, expanding participants and broader base of institutions lead to more briskness of interest rate swaps. On the other hand, growing trading volume and the design of agency clearing encouraged more institutions to participate in the swaps market. These two effects promoted each other, and a virtuous cycle was formed.

1.3 Market Innovation

1.3.1 The launch of standard bond forward trading

On April 1, the National Interbank Funding Center (the Center) and Interbank Market Clearing House Co., Ltd (Shanghai Clearing House) jointly announced that they would provide trading and centralized clearing services of standardized bond forwards for market participants since April 7. Standardized bond forwards referred to the bond forwards contracts on the interbank market with standardized product factors such as underlying bond and delivery date.

Compared with ordinary forwards contracts, standard bond forwards had distinctive features on contract design, trading mechanism and clearing methods. In respect of contract design, standardized bond forwards contracts made standardized design on the key factors of underlying bonds, maturity and delivery date. In respect of trading mechanism, standard forwards contracts were traded on the X-swap platform of the Center with anonymous quotation under certain price limit. The quotation was sequenced in principle of "price first, time first", and those meeting the credit grant requirements could be concluded on one-click trading. In respect of clearing method, Shanghai Clearing House provided centralized clearing. As requested, all members on the interbank bond market are allowed to participate in standard bond forwards trading.

Standardized bond forwards included both standardized T-bond forwards and standardized bank debts forwards for policy banks. At present, products with three tenors, including 3-year standardized CDB debt forwards contract (CDB3), 5-year standardized CDB debt forwards contract (CDB5) and 10-year standardized CDB debt forwards contract (CDB10) were launched. Participating institutions for standardized bond forwards are members of interbank bond market. In 2015, the turnover for standardized bond forwards reached 1.96 billion yuan.

1.3.2 The launch of centralized clearing for standardized bond forwards and standardized interest rate swaps

In 2015, business innovation on interest rate derivatives by Shanghai Clearing House mainly referred to the centralized clearing for standardized bond forwards and standardized interest rate swaps. In particular, the trading and clearing for standardized bond forwards were on trial operation on April 7, 2015. Since then, Shanghai Clearing House, with the aim to promote business development, actively conducted the promotion of membership agency business◎the draft and revision of quotation scheme, the establishment of trading & clearing platform and the research of its members. In addition, on November 30, the trading and centralized clearing through X-swap platform were viable and a total of 49 transactions, involving 1.62 billion yuan (one-side) were concluded on that day. This involved contracts of 3 tenors, and 15 members participated in the trading.

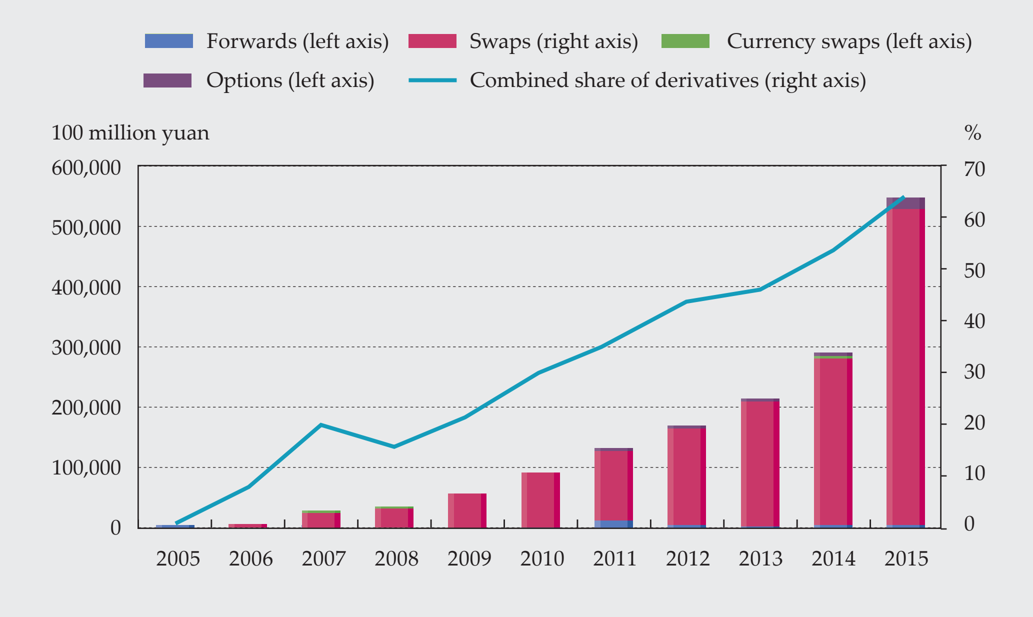
2. RMB exchange rate derivatives market

2.1 Market performance

In 2015, Interbank RMB exchange rate derivatives market was brisk in both trading and investment. The turnover reached 54.7 trillion yuan, up 89.7% from the previous year. Specifically, RMB/FX swaps registered a turnover of 52.6 trillion yuan, a year-on-year increase of 90.1%; RMB/FX options and currency swaps stood at 1.8 trillion yuan and 70.44 billion yuan, a year-on-year increase of 127.8% and 13.6% respectively. RMB/FX forwards was the only product among derivatives that experienced decrease in trading and investment, and the turnover was 236.12 billion yuan, down 27.9% year-on-year.

In 2015, the share of exchange rate derivatives in the turnover of interbank foreign exchange market grew from 53.2% of last year to 64.1%, the 7th consecutive year of positive growth. Since the first introduction of derivatives into the interbank foreign exchange market in 2005, the accumulative trading on the exchange rate derivatives market exceeded 100 trillion yuan, with annual growth rate above 50%.

Figure 8.4 Turnover of Exchange Rate Derivatives on the Interbank Market



Source: China Foreign Exchange Trade System (CFETS).

In 2015, RMB exchange rate derivatives market continued to expand in membership. Specifically, there were 123, 99 and 61 members for RMB/FX currency forward swaps, RMB/FX currency swaps and RMB/FX options, adding 25, 15 and 22 members respectively from the previous year. In terms of the type of member institutions, for forward swaps, members included 18 institutions such as large-scaled commercial banks, policy banks and joint-stock commercial banks, 62 foreign-funded banks, 14 urban commercial banks, 2 institutions under the category of fund and securities firms, and 6 institutions under the category of overseas central banks. Institutions under the category of overseas central banks started to enter the interbank RMB exchange rate derivatives market in 2015. In respect of member's functions, market makers and trial market makers for RMB/FX forward swaps totaled 27 and 5 respectively in number.

2.2 Market Features

2.2.1 The turnover of FX and currency swaps derivatives climbed up, and made up larger share

In 2015, FX and currency swaps grew by USD3886.5 billion in turnover, and the share of turnover in total exchange rate derivatives market rose from 86% to 91%. In particular, the turnover of swaps derivatives on the inter-bank FX market grew by USD3861.1 billion, and the swaps derivatives between banks and customers grew by USD25.4 billion. This mainly reflected the stronger willingness and growing emphasis by banking institutional investors and private customers to use swaps derivatives to manage liquidity and exchange rate risks.

2.2.2 Exchange rate options were traded briskly and exchange rate flexibility strengthened

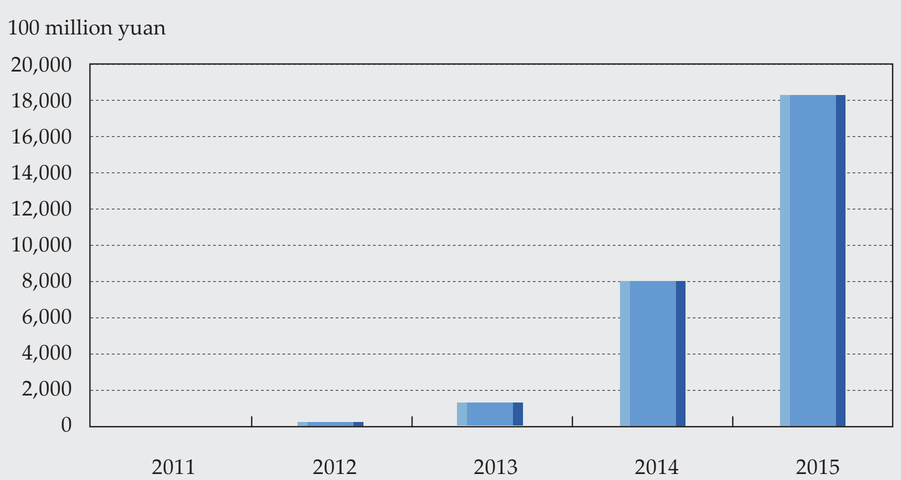
Since the launch of RMB/FX options on the interbank FX market in 2011, the trading and investment of this product was brisk with the strengthening RMB exchange rate flexibility, the growth of risk management needs by market participants and the improvement of market supporting policies. The turnover of exchange rate options in 2013 exceeded 100 billion yuan. In 2014, it exceeded 800 billion yuan. In 2015, it witnessed a twofold increase, exceeding 1.8 trillion yuan.

The briskness of exchange rate options, on one hand, reflected the strengthening of RMB exchange rate flexibility. In this year, the RMB exchange rate, RMB/USD exchange rate in particular, fluctuated markedly, and exchange rate flexibility improved significantly with the improvement of the quotation mechanism for middle price. Data indicated that the implied fluctuation in 1-year option was basically below 3%, and then quickly went up to over 4% in August and September. It basically hovered around 4% in the fourth quarter and the fluctuation picked up more visibly over the first half of the year.

2.2.3 The difference between onshore and offshore exchange rate widened, and interest rate spread between onshore and offshore markets narrowed

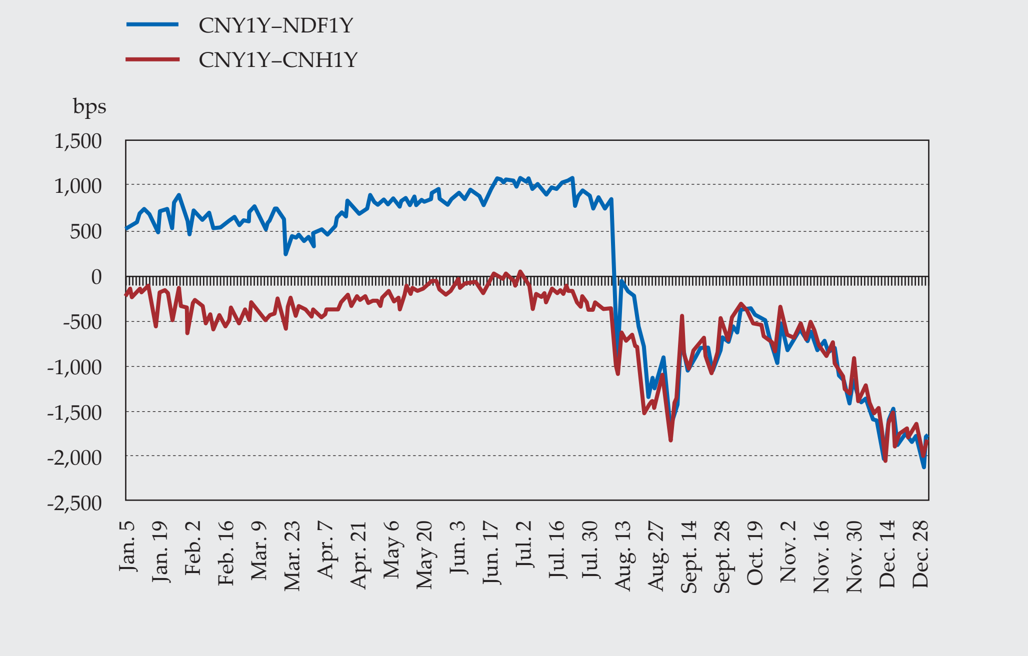
In 2015, the difference between onshore and offshore exchange rates widened markedly. Take the 1-year forward exchange rate on these two markets as an example. At the beginning of 2015, both onshore and offshore 1YCNY, 1YCHH and NDF exchange rate were at the range of 6.3 to 6.4, and generally fluctuated within this range in the first half of 2015. After the exchange rate reform in August, onshore and offshore forward exchange rate fluctuated greatly, depreciated rapidly to the level of 6.6, and then fluctuated within the wider range of 6.4 to 6.8. Since November, the difference between onshore and offshore exchange rates

Figure 8.5 Development of RMB FX Options Market



Source: China Foreign Exchange Trade System (CFETS).

Figure 8.6 Spread Movement of Onshore and Offshore 1-year Forward in 2015



Source: China Foreign Exchange Trade System (CFETS).

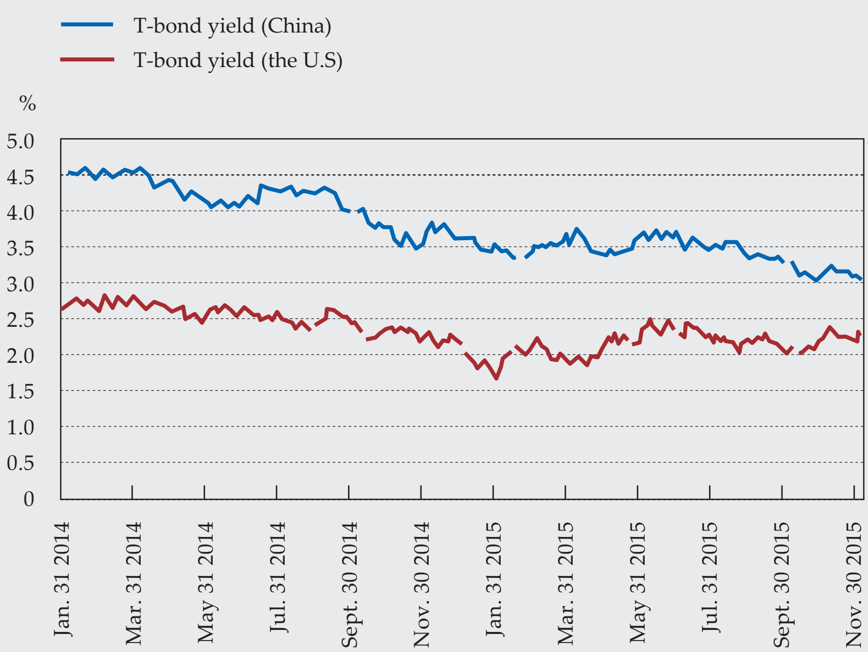
continued to widen to 1500-2000 basis points, much larger than the spread of 500 basis points at the beginning of 2015 and the spread of less than 1000 basis points in the first half of 2015.

The interest rate spread between onshore and offshore markets narrowed with the widening of forward exchange rate difference on these two markets. Following the launch of various measures to lower the financing cost of the real economy, the onshore funding conditions continued to be accommodative, and interest rates dropped significantly. The 7-day Shibor rate dropped substantially from about 4.8% at the beginning of 2015 to 2.3% at the year-end, dropping by over 50%. Bond yield continued to move downwards. The yield of domestic 10-year T-bond dropped from 3.6% at the beginning of 2015 to 2.8% in December. In contrast, the yield of US T-bond of the same tenor moved upwards continuously to about 2.2%, and the yield difference between these two countries narrowed significantly. With the first rate rise in 10 years by the US Federal Reserve on December 16 and the expectation of the entry of sustained rate rise corridor, the yield curve of US T-bond was expected to move upwards further.

2.2.4 The trading and investment on the forwards market dropped

In 2015, the trading and investment on the forward market fluctuated further. On the retail forward market, the sale and purchase of FX by banks in representative of customers witnessed sustained deficit in each month of 2015. The overall volume of forward FX purchase dropped in general, while forward FX sale rose rapidly and deficit volume reached the new high in August. As a result, in August,

Figure 8.7 Spread Movement of 10-year T-bond Yield in China and the U.S. since 2014



Source: China Foreign Exchange Trade System (CFETS).

the PBC issued the notice that macro-prudential management over forward FX sale should be strengthened. Thus, the forward FX purchase and sale deficit narrowed substantially. For the whole year, retail forward FX sale grew by 33% year-on-year, and retail forward FX purchase dropped by 56% year-on-year. Similar to the retail forward market, the overall trading volume on the inter-bank forward market dropped by nearly 30% amid bigger fluctuation. Before August 2015, the trading and investment maintained growth momentum. The FX forward trading contracted visibly after September, with the monthly average dropping from over 20 billion yuan to about 17 billion yuan.

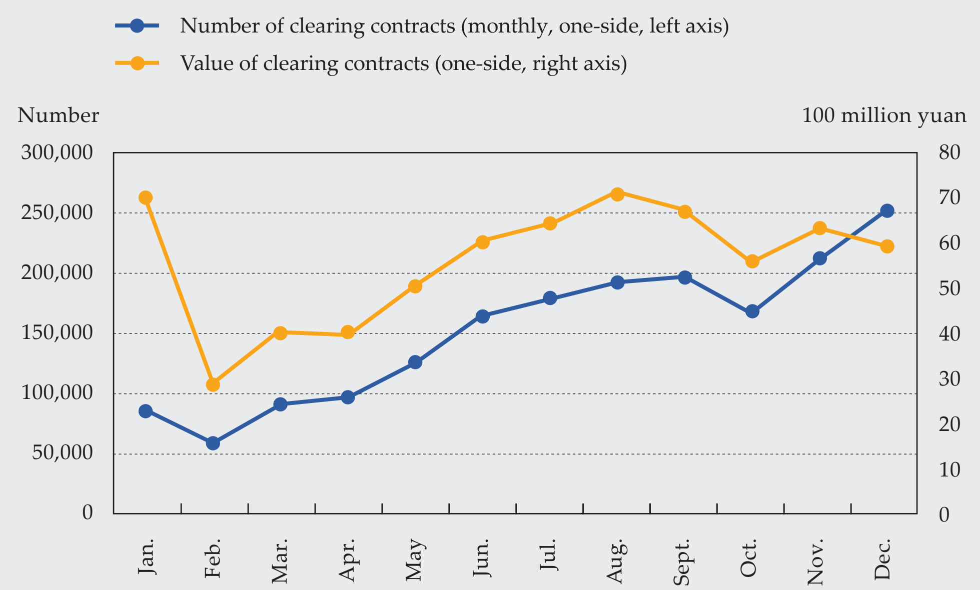
3. OTC shipping and commodity derivatives market

3.1 Market Performance

In 2015, OTC shipping and commodity financial derivatives market launched five new products, i.e. Free-trade-zone Copper-premium swap (FCP), RMB Styrene Swap (CSM), Free-trade-zone Ethylene Glycol Import Swap (FMEG), RMB Container Swap (CS) and China Coastal Coal Forward Freight Agreement (CFFA). Together with RMB Forward Freight Agreement (RMB FFA) in 2013, RMB Iron Ore Swap (CIS) and RMB Steam Coal Swap (CSS) in 2014, these products covered shipping, energy, metal and chemical sectors and products on China's OTC shipping and commodity financial derivatives markets continued to become diversified.

At the end of 2015, the transaction of OTC shipping and commodity financial derivatives expanded significantly. A total of 1.8267 million contracts (broke up monthly, one-side) were cleared in 2015, growing by more than fivefold over the previous year. The value of contracts that were cleared reached 67.441 billion yuan

Figure 8.8 Overview of Shipping and Commodity Financial Derivatives Market in 2015



Source: Shanghai Clearing House.

(one-side), growing by threefold over 2014. Market participants rose steadily to 385 in number, adding 125 from the previous year.

3.1.1 Shipping financial derivatives

RMB FFA was the first OTC shipping financial derivatives launched by the Shanghai Clearing House. And it fell into 3 categories in line with the type of charters, Capesize Time Charter (CTC), Panamax Time Charter (PTC) and Supramax Time Charter (STC).

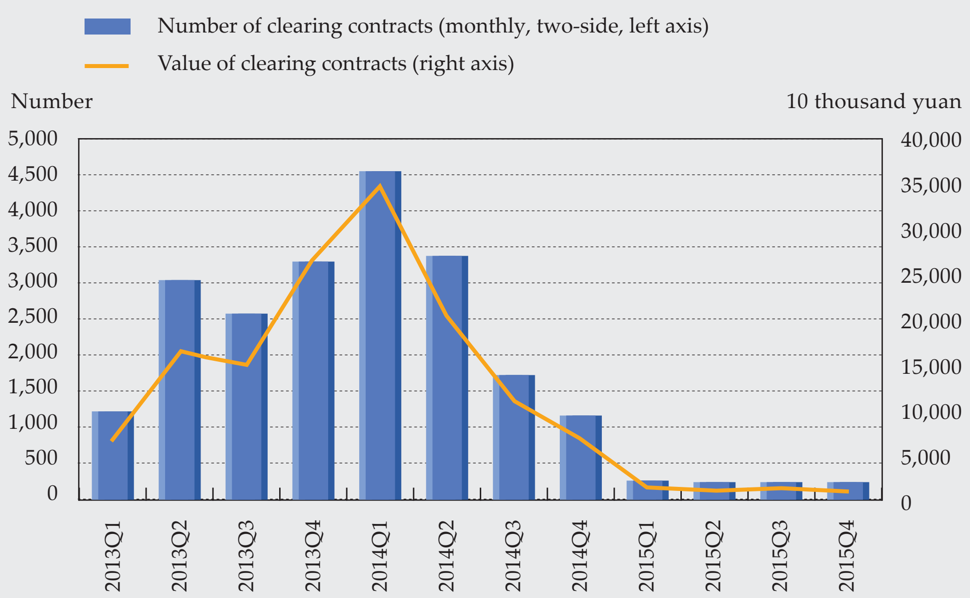
When RMB FFA was first launched into the market, it developed very rapidly. However, the international shipping market has been sluggish in recent years. The Baltic Dry Index, in particular, moved downwards in a straight line. Against this background, RMB FFA, with the Baltic Dry Index as the underlying index, dropped rapidly in transaction volume, and clearing value dropped significantly as well since 2014. The main clearing members for RMB FFA was CITIC securities and Shanghai Pudong Development Bank (SPDB), each accounting for 50% of total clearing amount.

On December 11,2015, the Shanghai Clearing House launched 2 new shipping products, i.e. RMB container swap (CS) and China Coastal Coal Forward Freight Agreement (CFFA). These two products performed well and were traded briskly, with clearing amount reaching 63 million yuan and 100 million yuan respectively.

3.1.2 Energy financial derivatives

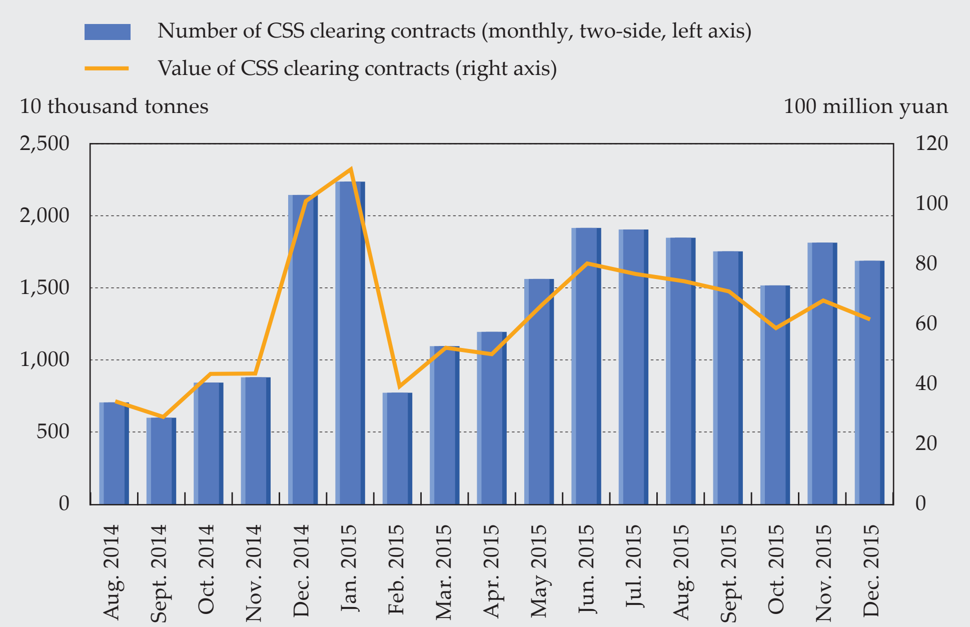
By the end of 2015, CSS was the only officially launched energy financial derivatives. It gained great attention ever since the initial launch and was well received by the market.

Figure 8.9 Operation of RMB FFA since the Launch of the Product



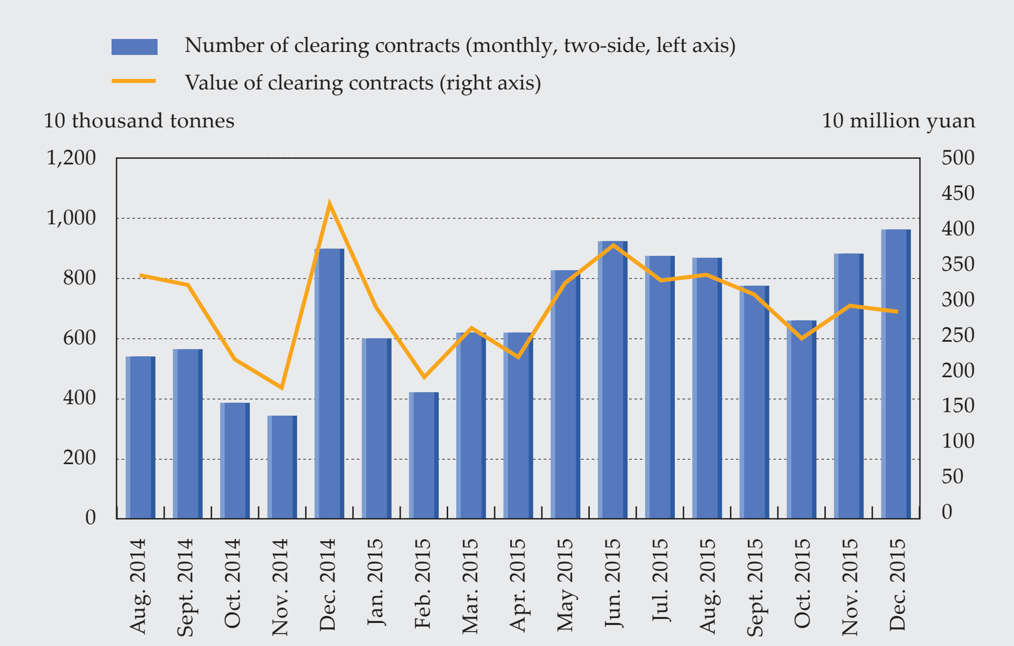
Source: Shanghai Clearing House.

Figure 8.10 Operation of CSS since the Launch of the Product



Source: Shanghai Clearing House.

Figure 8.11 Operation of CIS since the Launch of the Product



Source: Shanghai Clearing House.

From the end of 2014 to the beginning of 2015, the clearing amount of CSS rose dramatically in this strong coal consumption period. In February, as affected by the Spring Festival, both the clearing value and clearing amount dropped by a large margin. They then steadily picked up, and fell back slowly in the summer. However, the clearing amount remained at about 18 million tons per month, valuing 7.24 billion yuan. The main clearing members for CSS business was CITIC securities and China Merchant Securities, accounting for 35% and 29% of total clearing amount respectively. The remaining 36% were jointly shared by SPDB, Bank of Communications, and Agriculture Bank of China.

3.1.3 Metal financial derivatives

On the basis of good market reaction and with the aim to meet the hedging needs of the real economy, FCP, the first premium OTC derivatives in the world, was launched into the OTC mental derivatives market following the launch of CIS in the beginning of 2015.

By the end of 2015, the CIS market didn't take on any clear trend and moved sideways. Since May 2015, the monthly clearing amount hovered between 8 million and 9 million tons. However, as the trading price continued to move downwards, the monthly clearing value began to dip slightly since June. The main clearing members for CIS business were CITIC securities and China Merchant Securities, accounting for 38% and 33% of total clearing amount respectively. The share of SPDB and Bank of Communications in total clearing amount was 15% and 12% respectively.

The newly fostered FCP market in Feb. 2015 was still at the initial rapid development stage, and clearing amount was expected to rise in the future. The FCP trading volume grew steadily ever since the product launch and the clearing amount in December reached 1214.7 thousand tons, valuing 731 million yuan. The main clearing members for FCP business were Agriculture Bank of China and SPDB, each accounting for 50% of total clearing amount.

3.1.4 Chemical financial derivatives

In July 2015, two OTC chemical financial derivatives, CSM and FMEG were launched by the Shanghai Clearing House, and their performance was stable. The clearing amount of CSM dipped slightly since August, but the clearing amount remained above 20 tons per month, valuing 1.4 billion yuan. The main clearing members of CSM business were CITIC securities and China Merchant Securities, in aggregate accounting for 97% of total clearing amount.

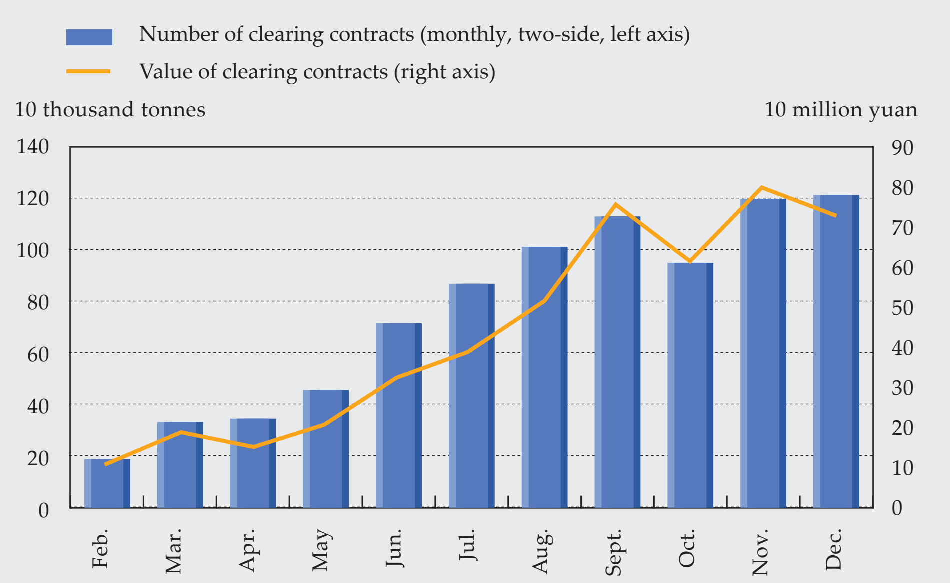
Since the product launch, the clearing amount of FMEG moved upwards amid fluctuation. The clearing amount in December rose significantly to 112.8 thousand tons, valuing 400 million yuan. The main clearing members of FMEG business were CITIC securities and SPDB, accounting for 49% and 50% of the total clearing amount respectively.

3.2 Market Features and trend

3.2.1 Financial sector serving the real economy was creatively implemented

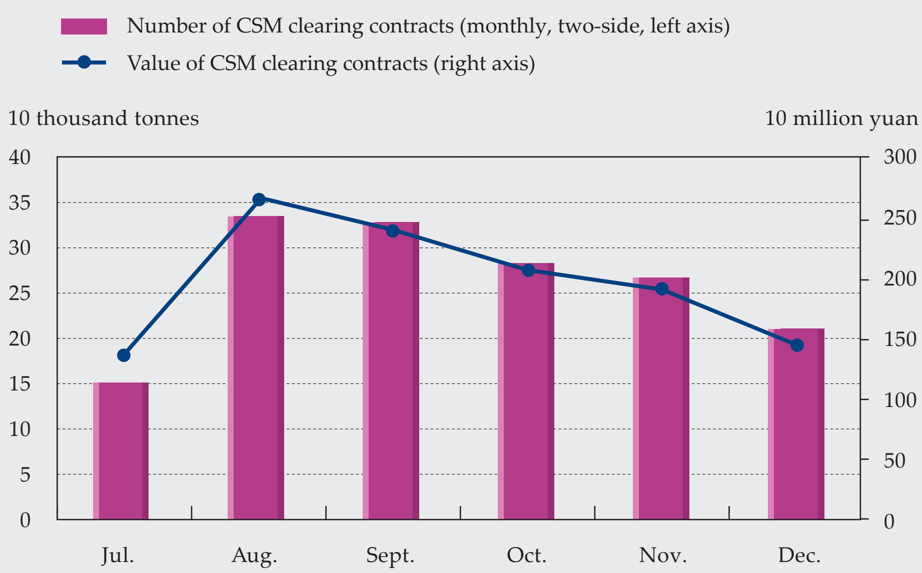
The creative development of OTC shipping and commodity financial derivatives market was closely connected with the real needs of the real economy. For instance, regional premium existed in the spot and futures prices of electrolytic copper, and market participants could not really achieve the complete hedge of

Figure 8.12 Operation of FCP since the Launch of the Product



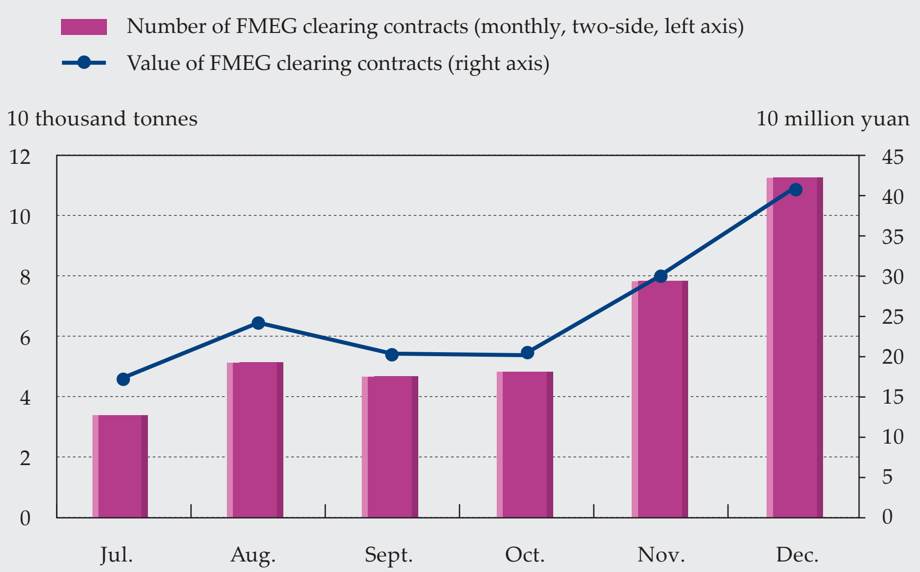
Source: Shanghai Clearing House.

Figure 8.13 Operation of CSM since the Launch of the Product



Source: Shanghai Clearing House.

Figure 8.14 Operation of FMEG since the Launch of the Product



Source: Shanghai Clearing House.

spot trading through futures market. Targeting this phenomenon, financial derivatives related to copper premium, such as FCP was launched as a useful hedge instrument for enterprises. In addition, products such as CSM and FMEG, CS and CFFA also satisfied the hedging and risk management needs of relative chemical and shipping enterprises.

3.2.2 Improvement of the pricing role of RMB in global commodity trading

The final settlement price of OTC shipping and commodity financial derivatives basically adopted the RMB spot price index launched by the third party in China. This aimed to break up the dominance of US dollar in commodity pricing. Meanwhile, the Shanghai Clearing House released the medium and long-term price curves of iron ore, steam coal and copper premium in RMB every day, making “Chinese Voice” in commodity pricing, and further enhanced the pricing role of RMB in global commodity market.

3.2.3 Improvement of the multilayer system of OTC commodity market

The Shanghai Clearing House set the medium-term development goal since 2014 to build the centralized clearing platform for the OTC commodity multilayer market, and worked out business plan and specific steps. By providing centralized, standardized and professional clearing services for the multilayer market of spot commodity and derivatives, the operation mode characterized by “multi-trading platform and centralized clearing platform” was established. The rapid development of OTC commodity financial derivatives and the stride for the further improvement of this target has made phased success, which bearing significance for the strategic goal of the acceleration of turning Shanghai into RMB product innovation, trading, pricing and clearing center.

3.2.4 Improvement of the multilayer system of OTC commodity market

The centralized clearing platform of Shanghai Clearing House provided standardized and professional clearing services for the spot and derivatives OTC shipping and commodity market. The funds netting rate was as high as 98%. In this way, it effectively prevented business risks, lowered the funding cost, and increased the efficiency of funds use. It was helpful to activate trading, and to better play the decisive role of market in resource allocation.

4. Other financial derivatives market

4.1 Performance of Credit Risk Mitigation Instrument (CRM) market

In 2015, there was no transaction on the CRM market. Since the launch of this product, 16 traders concluded 47 CRMA transactions by the end of December 2015. The accumulative notional principal reached 4.04 billion yuan, and underlying debt instruments included short-term financing bill, medium-term note, and notes issued collectively by small and medium-sized enterprises, covering over 10 different underlying assets. By the end of 2015, 6 CRMW issuers had registered and issued 9 CRMWs, with notional principal of 740 million yuan. The underlying bonds included short-term financing bills and medium-term notes, maturing at about 1 year. In 2015, there were neither new CRMW issue nor new CRMW transactions on the secondary market.

By the end of 2015, 47 market participants were filed as CRM traders, no change in number over end-2014. These included 33 domestic and foreign-funded commercial banks, 12 securities companies, 1 financial asset management company and 1 institution of other type. 26 market participants, which consisted of 24 domestic and foreign-funded commercial banks and 2 securities companies, were filed as CRM core traders, no change in number over end-2014. 30 market participants, which included 22 domestic and foreign–funded commercial banks, 7 securities companies and 1 institution of other type, were filed as CRMW issuers.

Since 2015, the external economic development was still very sluggish. China was at a special period, shouldering risks from three sources. Large pressure existed in stabilizing economic growth, credit risks were gradually uncovered, and default incidents on the capital market occurred frequently. With the launch of registration system, investors were expected to cultivate self risk-sharing awareness, and it gradually became the consensus for market participants to use credit derivatives to manage credit risks actively and proactively. Against this background, the National Association of Financial Market Institutional Investors (NAFMII) launched new products to satisfy market needs and administrative requirements within the previous framework of CRM "2+N". In addition, NAFMII also organized market institutions and law experts to establish the CRM working group. In line with the working principle of promoting product, lowering threshold, streamlining process and adjusting framework, NAFMII revised the institutional arrangements and relative documents for pilot CRM business and organized the draft of relative trading documents to accelerate CRM development.

4.2 Performance of foreign currency pairs derivatives market

In 2015, the trading and investment of foreign currency pairs were brisk, with turnover reaching USD 48.64 billion, up 210.3% year on year, the highest level in history.

In respect of currency pairs structure, the derivatives transactions of EUR/USD, USD/HKD and USD/JPY rose notably, standing at USD 25.28 billion, USD 10.68 billion and USD 9.26 billion, up 336%, 53.1% and 412.8% respectively year-on-year. The combined turnover of these three currency pairs made up 93% of total foreign currency pairs derivatives transactions.

In respect of derivatives type, swap transaction of foreign currency pairs was the most traded product. In 2015, the turnover of this product reached USD 43.54 billion, up 288.5% from the previous year. Forward transaction of foreign currency pairs registered USD 5.1 billion, up 14.2% from the previous year.

5. Outlook for financial derivatives market development

5.1 Further promotion of market innovation

In 2015, China's OTC financial derivatives market, in line with the basic principle of "encourage innovation, develop market, strengthen supervision and prevent risks", maintained the momentum of steady development, and trading volume expanded as well. However, compared to spot market, relatively big gap still existed, and issues such as the concentration of market participants, single product type, and insufficient market resilience needed to be addressed. Against the background of deepening financial reform and acceleration of market-based interest rate and exchange rate reforms, market innovations should be further promoted to realize the role of financial derivatives market serving the real economy and to fully exert risk management function. First, we should improve innovation mechanism, and developed the mechanism that positive interaction existed between administrative management and market self-discipline. We should also adhere to the working principle that market has the final say in business operation, and establish the endogenous innovation mechanism on the basis of market requirements. Second, we should continue to enrich product spectrum, fully analyze the development rules for both domestic and overseas OTC financial derivatives market, promote the development of financial derivatives in phased and selectively way, balance the relationship between innovation encouragement, market development and risk prevention, and promote the orderly development of OTC financial derivatives market.

5.2 Continuous optimization of derivatives operation environment

At present, China's OTC financial derivatives market was still at the initial stage of development, and market environment needed to be further optimized to enhance active trading. First, we should promote media coverage and marketing. Current investors of derivatives trading were relatively concentrated, with commercial banks as the main players. We can actively expand media coverage among non-banking financial institutions and non legal-person products, and encourage investors of different types to participate. Meanwhile, with the launch of innovative products, the types of available derivatives became more diversified, and more media coverage on product functions could enhance the pro-activeness of market participants to manage risks. Second, we should improve the training of market participants. OTC financial derivatives trading consisted of relatively complex product structure, and investment managers should possess relatively strong risk management and analysis capability. The enhanced training on market participants, the strengthened risk awareness of investment managers, and the fully understanding of responsibilities and obligations by investment managers was an important link to optimize the market environment of derivatives.

5.3 Strengthening of the legal framework of derivatives market

The selective reference to the development experiences of overseas mature markets, and the improvement of the legal framework of China's derivatives market based on China's own context, is the important foundation of maintaining the sustained and sound development, preventing legal risks of derivatives trading and safeguarding standardized market development. First, we should continue to resolve the uncertainties connecting the conclusion of netting settlement and the honor of contract. The conclusion of netting settlement and the honor of contract are the general basic arrangement of OTC financial derivatives market. However, it still faced uncertainties in China's legal practices, and this restricted the further development of OTC derivatives market. The effectiveness and feasibility of relative institutional arrangement under China's legal framework should be specified as soon as possible, thus providing legal foundation for market development. Second, we should improve the text sequence of The NAFMII Master Agreement. The text of the *NAFMII Master Agreement* will be upgraded continuously with the expansion of market scale and the launch of innovative products. In line with the further opening up of overseas institutional investors investing on the interbank market, and the pace of RMB internationalization and the going out of Chinese financial institutions, we should continue to improve the text sequence of the *NAFMII Master Agreement* on the basis of market needs, to revise and update supplementary documents such as trading confirmation mode and defining text.

5.4 Steadily expansion of market participants

Financial derivatives are effective instruments to manage, diversify and transfer risks. Meanwhile, as they possess high risks themselves, market participants with different risk shouldering capabilities should be attracted to diversify investor base, optimize resources allocation and thus to promote the steady, sound and sustained development. First, we should encourage non-financial institutions to participate in derivatives trading to satisfy their hedging needs. In this way, the channels and capabilities of risk management by enterprises can be expanded and derivatives can better play the role of serving the real economy. Second, we should promote the diversification of market participants. At present, OTC derivatives market is dominated by commercial banks, and more efforts should be made to improve market trading institutional arrangement, diversify product sequence and to provide conditions for non-banking financial institutions and non legal-person products to participate in OTC derivatives market. Moreover, investors should also grow in number to expand the whole team. Third, we should continue to improve the risk management capabilities of investors. Derivatives trading possess higher risks, and the building of qualified investors should be improved. Efforts should be made to encourage market participants to improve corporate governance structure, strengthen risk management technique, and promote the process of operation and risk management. As a result, the trading risks from the very beginning can be prevented. Of course, self-discipline should also be enhanced to improve the professional level and ethics of participating institutions and persons.

5.5 Further improvement of market infrastructure

With the aim to lower systemic risks, improve market transparency and to prevent market abuse, both overseas and domestic OTC financial derivatives market continued to improve infrastructure building, with institutional arrangement such as central clearing and information report & filing as the components. In line with the requirements of the PBC, standardized interest rate swaps were traded on compulsory centralized clearing. In the future, supplementary policies of central counterparty clearing should be further improved as required, and their application should be expanded to include suitable OTC derivatives. Meanwhile, we should strengthen information report and filing of OTC financial derivatives trading, enhance the transparency of trading information, introduce financial statement mechanism that independently audited the exposure of OTC financial derivatives. As a result, both investors and administrators could fully understand the value and risk level of OTC financial derivatives, and set up more transparent OTC financial derivatives market. In addition, market infrastructure construction should both satisfy domestic market needs, and attract international investors. We should continue to improve the infrastructure construction of financial derivatives market under the framework of the *Principles of Financial Market Infrastructure*, improve the serving capabilities of China's centralized clearing and information report & filing institutions with reference to international standards, and enhance the international competitiveness as a whole.

Box 6 The Notable Improvement of Compliance, Standardization and Internationalization of Asset Securitization Product

As an innovative funding instrument, credit asset-backed securities separate and restructure the risk and return elements of illiquid credit assets with foreseeable returns through structural arrangement, and these assets are finally transferred into standardized securities that can be sold and float on the market. Asset securitization can effectively revitalize credit assets on the balance sheet, provide liquidity support for the transformation of commercial banks, release credit resources and extend credit asset, as guided by policies, to the key and weak areas of real economic development. Therefore, asset securitization is an important measure to implement the policy of the CPC central community and the State Council to stabilize growth, adjust economic structure, promote reform, improve the social welfare and prevent risks.

On May 13, 2015, the executive meeting of the State Council decided to expand pilot credit asset securitization scale by 500 billion yuan, improve institutional arrangement, streamline procedures, and encourage phased issuance under just one registration. At this meeting, the State Council also standardized information exposure, support the trading of securitized products on the exchange. The fund released by pilot commercial banks should be used in key areas, supporting the renovation of shanty towns, the construction of water conservancy projects and the building of railways in central and western regions. After the meeting, the PBC, jointly with other ministries and sector self-discipline organizations earnestly implemented the essence of the meeting, and actively organized the implementation. As a result, the administrative measures were further improved, approval procedures were further streamlined, information exposure standards were launched successively, and the structure of securities holders became more diversified. Specific asset-backed securities to support the renovation of shanty towns, to help the development in Beijing, Tianjin and Hebei provinces and to support green finance were, for the first time, launched on the interbank market The role of securitization to activate market inventory, to optimize the resources allocation and to bolster economic innovation under the new normal state began to emerge. A total of 106 different asset-backed securities were issued in 2015, totaling 405.633 billion yuan and the accumulative outstanding balance registered 538.061 billion yuan. The released credit quota effectively supported the reform, development and innovation upgrading in key sectors, and credit asset securitization made positive achievements.

1. Further improvement of issuance administration

In April 2015, with the aim of streamlining issuance procedures, the PBC issued PBC Notice〔2015〕No.7 (No.7 Notice), specifying that all qualified financial institutions can follow certain rules to apply phased issuance under just one registration. Since the launch of this administrative measure, retail credit asset securitization saw rapid growth and both the initiator and issuer actively followed the application requirement in No.7 Notice to issue asset-backed securities under the registration system. By end-2015, financial institutions registered 16 series of retail credit asset-backed securities, with registration value standing at 421 billion yuan. A total of 17 products were issued, reaching 63.878 billion yuan and accounting for 15.75% of the total issuance in 2015. This was also helpful to optimize product composition with CLO as the main product. In May 2015, aiming to implement the requirement of reducing administrative approvals, the PBC issued PBC Notice〔2015〕No.9 (No.9 Notice), and removed administrative approvals for bond trading, including asset-backed securities. No.9 Notice straightened out the procedure in issuance, launch and trading for credit asset-backed securities, and there would be no proportion restriction for the holding of such securities. As a result, investors could choose how much they would hold in light of their own funding cost and internal control standard, which was helpful for the issuance, launch and trading of asset-back securities, and the willingness of investors participating in securitization.

2. Gradual improvement of information transparency

After the release of No.7 Notice, the PBC, with reference to the international practices, guided NAFMII to launch the information exposure guidance and supplementary system with tables of credit asset-backed securities for personal auto loans, personal housing mortgage loans, project loans for the renovation of shanty towns, and personal consumption loans. Meanwhile, the PBC emphasized the main responsibility of initiating institutions and persons in information exposure, standardized data source in information exposure and enhanced the transparency in asset-backed securities. In the Guidance of Information Exposure on Asset-backed Securities for Personal Consumption Loans (Interim), The PBC, in light of product innovation and market development, guided NAFMII to specify information exposure requirements for products with continuous purchase structure, responded the information requirement of such investors, and effectively protected the interest of investors.

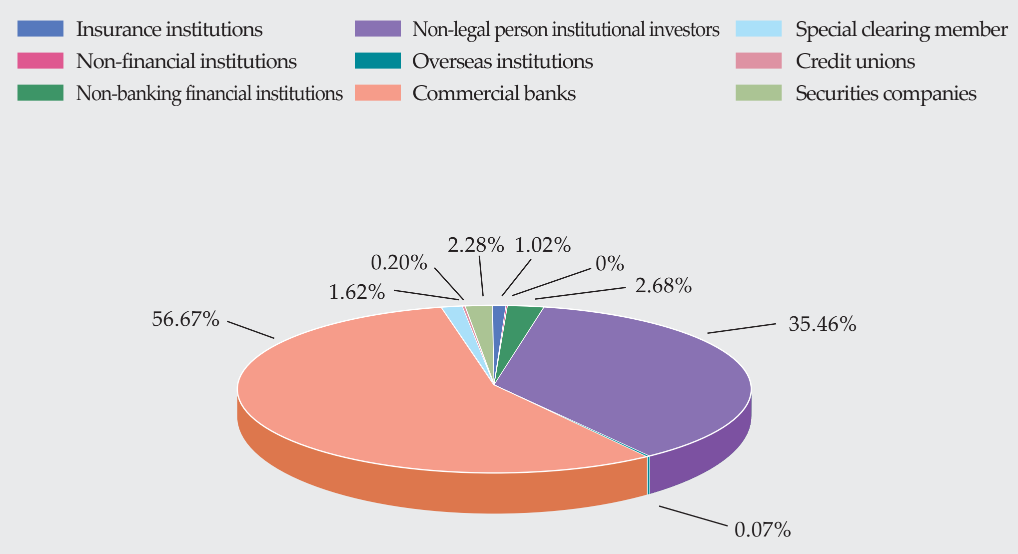
3. More diversified base of investors

Since the expansion of pilot program, the holder structure of credit assets securitization became more diversified and credit assets securitization played an increasingly visible role in promoting the disperse and transfer of credit risks. By end-2015, credit assets securitization investors reached 431 in number, among which 170 or 39.44% were banking financial institutions, with securities held accounting for 56.87% of the total, 261 or 60.56% were non-banking institutions and non legal person investors such as securities companies, insurance companies and funds, with securities held accounting for 43.13% of the total, up 11.4 percentage points from the end of 2014. In particular, Jian Yuan Second Tranche of Credit Assets-backed Securities in 2015 for Personal Housing Mortgage Loans became the first credit assets-backed security that introduced *insurance fund on the domestic market. Overseas investors such as QFII, RQFII, overseas RMB clearing banks and participating banks also actively participated in the investment of retail loan securitization products, with subscription value exceeding over 600 million yuan in the whole year. This enriched the participating base of asset securitization, and helped China's credit asset-backed securities to explore overseas market and lower the funding cost of asset securitization.*

4. More liquid secondary market

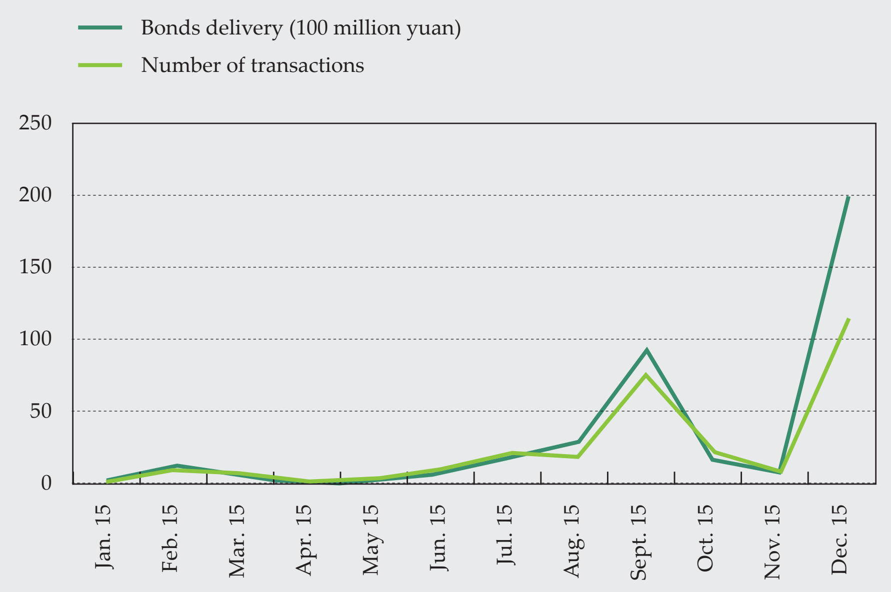
In 2015, the issue scale of credit asset-backed securities continued to expand and accumulative outstanding balance reached 531.098 billion yuan. The understanding and acceptance of investors towards asset-backed securities strengthened, and the trading on the secondary market became more brisk. In the whole year of 2015, a total of 286 transactions were concluded, with turnover reaching 39.429 billion yuan. The delivery amount of securities also picked up gradually (see Table 2). Compared with the number in 2014, i.e. 35 transactions with turnover of 2.093 billion yuan, the number of transactions grew by 8.17 times and the turnover grew by nearly 18.84 times, and the liquidity improved markedly. The briskness of secondary market for credit asset-backed securities was helpful to lower the liquidity spread between these securities with other securities of the same tenor and credit rating, reduced the issue hurdles on the primary market, and liquidity convenience expanded investment demand as well. After the No.7 Notice specified that trustee institutions, initiating institutions, main underwriters or

Figure 8.15 Breakdown of Holders of Asset-backed Securities at end-2015



Source: The People's Bank of China.

Figure 8.16 Delivery of Credit Asset-backed Securities in 2015



Source: The People's Bank of China.

other institutions could sign contracts to identify the market making arrangement for credit asset-backed securities, China Securities provided market making services for the preferred A1 of Xingyin Fourth Tranche of Credit Assets-backed Securities in 2015. It was concluded after continuous bilateral quotation for three days, and was the first successful market making case for asset-backed securities on the inter-bank bond market. The introduction of market making system bore great significance for the guidance of reasonable quotation, the briskness of market trading, the enhancement of market liquidity and trading efficiency, and the stable performance of bond market.

5. Expansion of product types and innovation of product design

In respect of the expansion of product types, the loans to renovate shanty towns were newly added into basic assets spectrum. The securitization of such basic assets contributed to the concentration of credit resources to key areas, fully revitalized stock fund, and supported industrial development in the shanty towns. It was noteworthy that the securitization of private housing mortgage loans developed very fast. By end-2015, 6 banks issued residential mortgage-backed securities (RMBS), totaling 25.98 billion yuan, surpassing the combined value over previous years, and effectively supported the housing consumption needs of residents.

In respect of the innovation of product design, first, dynamic asset pool of consumption loans securitization emerged. Yongying First Tranche of Consumption Asset-backed Securities in 2015, Yongdong First Tranche of Private Consumption

Asset-backed Securities in 2015 and Hexin Second Tranche of Trust Asset-backed Securities for Auto Mortgage Loans in 2015 all adopted dynamic assets pool and cycling structure. By continuously injecting new consumption loans into the asset pool to maintain asset pool stability within the duration of the trust, these products effectively resolved the mismatch between remaining asset maturity and securities duration. Investors were more familiar with the repayment methods that the principal was also paid during the repayment period, which was convenient for investors to valuate the cash flows. Products adopting cycling assets and cycling structure were expected to develop further. Second, CLO product with super-short maturity emerged and was repaid by month. On July 24, 2015, the successful issuance of Xingyin Third Tranche of Credit Asset-backed Securities in 2015 broke the previous CLO features such as longer maturity and quarterly repayment, got out of previous CLO product mode and diversified product structure on the securitization market. Third, more projects chose to openly issue securities with subordinated ratings. The No.7 Notice specified that the issuance of credit asset-backed securities of the lowest level was free of credit ratings. On March 18,2015, Kaiyuan First Tranche of Credit Asset-backed Securities in 2015 by CDB openly issued subordinated securities by the book-entry of qualities. The market responded actively, and open issuance gradually became the main methods for subordinated securities.

Box 7 Centralized Clearing of Standardized Bond Forward

On April 7, 2015, RMB standardized bond forward were launched into the market, and Shanghai Clearing House provided centralized clearing services for this product. This was another important product on the interest rate derivatives market following interest rate swap and T-bond futures. On November 30, standardized bond forward was officially traded on the X-Swap platform and the Shanghai Clearing House and CFETS were also fully connected. On the same day, 49 transactions, valuing 1.62 billion yuan (one side) were cleared, involving 15 member institutions.

1. Product portfolio

Compared with T-bond futures, the underlying bonds for standardized bond forward were CDB bonds with coupon rate of 3%, which were traded more briskly and the quoted price was more market-based. As the term of underlying bonds differed (3-year, 5-year and 10-year), specific products were registered as CDB3, CDB5 and CDB10. The contract months were the last month of each season, so these 3 types of products could roll over into 12 different contracts.

1.1 Products specifications

(1) Key time point: The contract months were the last month of each season, the delivery date (D date) was the third Wednesday of the contract month, and the last trading date was the D-1 date.

(2) Quotation reference: The quotation was

based on the clean price of one hundred yuan, the quotation unit (1 lot) was 10 million yuan, and the smallest price movement unit was 0.001 yuan.

(3) Bonds to deliver: The bonds to deliver for CDB3, CDB5, and CDB10 were non-option embedded CDB bonds with fixed rate, which the remaining duration before the delivery date was between 2(including 2) to 4 (excluding 4) years, 4(including 4) to 7 (excluding 7) years, and 7(including 7) to 15 (excluding 15) years.

(4) Margin: the margin rate for CDB3 was tentatively fixed at 1.17%, the margin rate for CDB5 and CDB10 was 1.8% and 3.74% respectively.

1.2 Trading and delivery method

On November 30, standardized bond forward was traded on the X-Swap system, and the trading mechanism was in the quasi-bidding form of anonymous matching and one-click trading. Such trading mechanism maintained the previous advantages of inter-bank derivatives market, and enhanced the trading transparency and processing efficiency. Standardized bond forward was delivered in cash with reference to the basket of bonds to deliver. Physical delivery will be practiced when conditions are mature in the future.

1.3 Price setting

For standardized bond forward, the price for launch, delivery and "mark to the market" corresponded to the benchmark launch price, delivery price and daily settlement price. In particular, the launch benchmark price was calculated through conversion factor and the weighted trading volume on the basis of the presumed price on the contract expiration date for a basket of delivery bonds. The delivery price was calculated as the actual concluded price on the spot market before 12 o'clock for a basket of delivery bonds. If the number of transactions was below the least requirement, Shanghai Clearing House then organized the quotation group to make the quotation for the underlying bonds. The daily settlement price was calculated as the weighed concluded price for daily contract in the last two hours. If the number of market trading didn't comply with the least requirement, CFETS then organized quotation group to make the quotation for the underlying bonds.

2. Business operation

From product design, trial operation to the official trading via X-Swap platform, Shanghai Clearing House made lots of efforts to safeguard the smooth, stable and safe operation of standardized bond forward clearing.

In terms of membership establishment, after intense system design, testing and preparation, on June 29, the Shanghai Clearing House officially launched the agency business for standardized bond forward, making it possible for members of inter-bank bond market to participate in centralized clearing. By end-November 2015, a total of 49 financial institutions became members of standardized bond forward clearing, among which 3 were comprehensive clearing members, and 19 institutions had already participated in trading.

In terms of product design, the forming mechanism for delivery price is the key focus in standardized bond forward, and Shanghai Clearing House actively conducted scheme draft and revision for the quotation group. At the beginning of September, Shanghai Clearing

House organized two seminars on delivery price in Shanghai and Beijing, inviting 67 representatives from the PBC, CFETS and 48 market institutions to attend the discussion. The document was officially released on October 21, with the quotation group consisting of 36 commercial institutions. This quotation group made quotation for a basket of delivery bonds, and safeguarded the fairness of product trading and delivery.

In terms of risk management, Shanghai Clearing House did lots of research and discussion on how to establish risk management system and risk control parameters for standardized bond forward. It finally set up precise and strict rules on margins and clearing fund, position holding and default handling. It also periodically drafted specific report on clearing risks, analyzed price fluctuation, position holding and "mark to market", and thus safeguarded product trading.

In terms of systemic platform, Shanghai Clearing House cooperated closely with CFETS, and initiated X-Swap trading and centralized clearing for standardized bond forward. With the aim of achieving direct electronic handling of trading, front desk and back desk in clearing for standardized bond forward, the two sides negotiated to identify data exchange content and conducted joint research and testing timely. In this way, the feasibility, security and efficiency for market institutions to participate in trading and centralized clearing rose accordingly.

3. Business overview

3.1. Trading and position

By end-2015, 19 financial institutions took part in 83 standardized bond forward central counterparty clearing, with turnover reaching 1.96 billion yuan. The average trading price was 97.12 yuan, and China Zheshang Bank and Industrial Bank were the most active participating institutions.

In respect of product tenors, most trading were contracts with delivery month in the season month. Contracts with delivery month in the second and distant season month ranked second and third. The average trading price of contracts with delivery month indistant season month were the lowest among these 4 contracts. The average trading price of contracts with delivery month in and next to the season month were basically the same. However, the average trading price of contracts with delivery date in other months were higher than above two contracts. This didn't comply with trading logics, and might be the result of small statistic samples.

In respect of underlying bonds, standardized forward products with underlying bonds as CDB bonds with long tenor were the popular products. The longer the tenor of underlying bonds, the lower the trading prices.

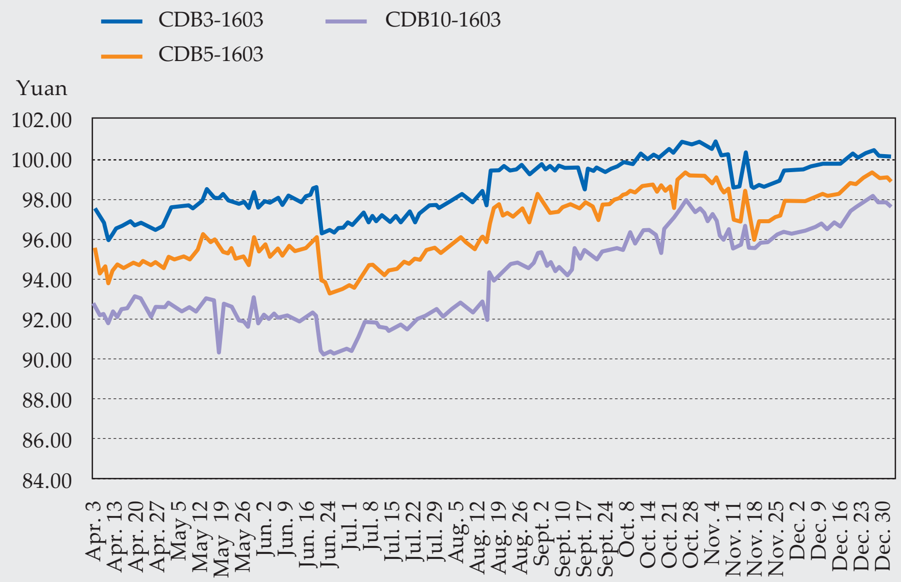
By end-2015, except CDB3-1603 and CDB10-1603, the position holding of any other standardized bond forward contracts was 0. In respect of institutions, other than Bank of Ningbo, China Securities and CITIC Bank, the position holding of other members was 0.

3.2. Risk management

Take the contract in March 2016 as an example. For the general movement, the movement of daily delivery price[3] for 3 contracts in this month was basically the same, and they all moved up amid

3 The daily delivery price was released by Shanghai Clearing House. For the structure of quotation group and specific quotation scheme, see CFETS rules.

Figure 8.17 Movement of Daily Delivery Price of Standardized Bond Forward with Delivery Month in the Second Season Month in 2015



Source: China Foreign Exchange Trade System (CFETS).

fluctuation (see Figure 8-17).

Take the contracts with delivery month in the second season month (1603) as an example. The daily and two-day fluctuation of settlement price for three products in this month was more stable compared with the fluctuation in previous period. Statistics indicated that the longer the tenor of underlying bonds, the larger the fluctuation. The largest two-day fluctuation rate for 3-year, 5-year and 10-year was 0.52%, 0.69% and 0.54% respectively, all below the margin rate of corresponding contracts. It was noteworthy that the largest daily and two-day fluctuation of CDB3-1603 and CDB5-1603 exceeded the margin rate of corresponding products since the start of the business.

4. Market Significance

The launch of standardized bond forward bore great significance for product system and the financial market.

First, with respect to product itself, standardized bond forward was the potential product that was greatly promoted following interest rate swap. The launch of this product diversified the underlying assets of derivatives products on the inter-bank market, enhanced the initiative of market participants, and expanded the scope and preciseness of risk management. Moreover, as a pilot product for noncompulsory representative clearing arrangement by Shanghai Clearing House, standardized bond forward attracted lots of attention. It also possessed unique *advantage. Compared with ordinary forward contracts, standardized bond forward made clear requirement on the elements of contract. It was more similar to floor-trading futures, and was more liquid and transparent. In addition, the clearing mechanism eradicated default risks, and the "mark to market" and margin arrangement, in a sense, prevented the systemic risks of product trading.*

Second, with respect to market operation system, the launch of standardized bond forward on the inter-bank market filled up the gap that banking and insurance sectors could not participate in bonds futures, and improved the risk management toolkit of interbank investors. As RMB standardized forward possessed the features of futures (standardization and the possible open bidding in the future), it was highly replaceable to T-bond futures in trading. It also made up the blank that institutions such as banks and insurance companies on interest rate futures market, provided hedging or shorting mechanism, and diversified and activated the operation mechanism of derivatives market.

Moreover, with respect to the overall financial market system, the delivery mechanism of standardized bond forward---the material delivery of a basket of bonds, can effectively help to achieve the connection between spot underlying bonds and underlying bond futures, enhance trading briskness, and promote more flexible and market-oriented pricing mechanism. As relating to concepts such as cheaper CTD and IRR, institutions can use standardized bond forward and the arbitrage between spot and futures trading of cash bonds to gradually narrow price difference, realize the infinite convergence between forward contract price and the real forward price of cash bonds, and form more reasonable and fair market price. The fair and flexible market environment can enhance the role played by derivatives products, promote the spot and futures trading, and realize the virtuous cycle.

Special Topic: The Development of RMB Internationalization

In recent decade, China's reform and opening-up continued to proceed, and China's economy became more integrated into the global economy. With the expansion of China's external economic and trade volume, the shock of 2008 international financial crisis in particular, the fluctuation of international currencies widened notably, and the needs of RMB on the international market grew as well. Driving by market needs, China launched a series of reform and opening-up measures to actively and cautiously promote RMB internationalization process. This process started from the offshore RMB market in Hong Kong and other regions. The pilot policy for cross-border RMB trade settlement in 2009 accelerated the internationalization process, and offshore BMB market developed rapidly. With the deepening of RMB international cooperation and the steady liberalization of China's capital accounts, the international use of RMB continued to expand, and RMB internationalization also rose gradually.

According to SWIFT statistics, in 2015 RMB ranked as the No.2 trading and financing currency globally, basically maintaining the fifth position as the payment currency. Various reforms on RME internationalization delivered fruitful results, and were generally accepted by the international society. On December 1, 2015, the IMF announced that RMB would be accepted in the currency basket of SDR since October 1, 2016, with the share in SDR reaching 10.92%. RMB was the first currency from developing world that was accepted into the SDR basket, and RMB internationalization made staged achievements, and would developed in both depth and width.

1. Offshore RMB market made headway, growing by more than 20 times over 2010

To satisfy the expanding needs of international investors on RMB assets, in June 2007, the PBC and the NDRC jointly released Tentative Administrative Measures on the Issue of RMB Bonds by Domestic Financial Institutions in Hong Kong SAR, allowing qualified domestic financial institutions to issue RMB bonds in Hong Kong. In the same month, CDB successfully issued the first RMB offshore bond in Hong Kong, valuing 5 billion yuan, which also marked the beginning of offshore bond market development. Bond issuers became more diversified afterwards, and various institutions such as the Ministry of Finance, financial institutions, overseas enterprises and financial institutions, foreign governments all issued offshore RMB bonds. After the revision of Clearing Agreement on RMB Business in July 2010 by the PBC and Bank of China, Hong Kong, enterprises and institutions could freely open RMB accounts on the Hong Kong offshore market and could freely traded the currency. As a result, the offshore RMB FX market developed rapidly, and various products such as FX spot, DF, FX swaps, NDF, FX futures and options emerged. With the expansion of the international use of RMB, more and more international financial markets promoted the development of offshore RMB market.

After many years of development, thanks to the rapid offshore RMB business development in many international financial markets such as London, Singapore, and New York, the offshore RMB market developed from a single offshore RMB business center in Hong Kong China into multi-centers, and business development reached certain levels. Take the RMB Global Index released by Standard Charted as an example. This index covered the main 7 RMB offshore markets in Hong Kong, London, Singapore, Taipei, New York, Seoul and Paris. In December 2015, this index stood at 2120 points, growing by more than 20 times as much as the benchmark in December 2010. According to incomplete statistics, by the end of December 2015, outstanding balance of RMB in Hong Kong China, China Taiwan Area, and Korea registered 1199.724 billion yuan (excluding certificate of deposit). According to the latest statistics of BIS, by end-June, 2015, outstanding balance of international bonds denominated in RMB registered USD 79 billion. In 2015, the daily turnover of RMB FX on the main offshore markets such as Hong Kong, Singapore and London exceeded USD 230 billion.

2. RMB international cooperation continued to deepen and RMB international clearing service system was improved

Since 2008, as China continued to promote external currency cooperation, by establishing currency swap cooperation with overseas central *banks and currency authorities, setting up RMB clearing arrangement and RMB clearing banks, China has established cooperative relations with more and more countries and regions. These attempts have made positive results, which greatly enhanced RMB liquidity on the international market, and promoted convenience in the use of RMB in trade and investment.*

Currency cooperation continued to expand. In December 2008, the PBC signed currency swap agreement with the Korean central bank, totaling 180 billion yuan/38 trillion Korean won. In 2015, the PBC signed or renewed currency swap agreements with central banks in 12 countries such as Suriname, Armenia, South Africa, Chile, Tajikistan, Malaysia, Belarus, The United Arab Emirates, Turkey, Australia, Ukraine and the UK, totaling 856 billion yuan. By the end-2015, China had signed bilateral currency swap agreements with central banks or currency authorities in 33 countries and regions, with total amount exceeding 3.3 trillion yuan. Meanwhile, the real use of RMB supply in bilateral currency swap agreements grew significantly. By end-2015, under bilateral currency swap agreements signed by the PBC and overseas currency authorities, the RMB balance used by overseas authorities reached 49.944 billion yuan, and the outstanding balance of foreign currencies used by the PBC reached USD 434 million. Swapped fund in these agreements gradually played the role in supporting bilateral trade financing and investment.

The cooperation of RMB clearing arrangement continued to deepen, and the clearing system has basically covered the whole world. The PBC first established the RMB clearing arrangement and RMB clearing bank in Hong Kong. Macao and Taiwan. In 2012, it signed the memorandum of cooperation with Singapore authorities on RMB clearing arrangement. Since 2014, the PBC has signed the memorandums of cooperation on the establishment of local RMB clearing arrangement with central banks in 16 countries such as the UK, Germany, Korea, France, Luxemburg, Qatar, Canada, Australia, Malaysia, Thailand, Chile, Hungary, South Africa, Argentina, Zambia and the United Arab Emirates. In these agreements, the two parties made commitment to fully negotiate and cooperate, and made efforts in supervision, information exchange, sustained evaluation and the improvement of policies. The PBC then designated a Chinese bank in these countries as the local RMB clearing bank, and overseas RMB clearing banks could, as required, provide RMB purchase and sale services under the trade in goods item, establish local RMB cash supply and withdrawal channels, and handle local RMB cash distribution. By end-2015, the PBC established RMB clearing arrangements in 20 countries and regions, covering Southeast Asia, Europe, Africa, North America, South America and Oceania , and basically established the global RMB clearing network with 24-hour continuous services. In addition, the PBC signed local currency settlement agreement for border trade with neighboring 5 countries such as Vietnam and Mongolia, and signed local currency settlement agreement for general trade with 4 countries, such as Belarus, Russia, Kazakhstan and Nepal, which greatly promoted trade and investment convenience in RMB and bilateral currencies between China and these countries.

3. The scope and size of RMB cross-border business expanded rapidly, and the use of RMB in international settlement grew as well

Pilot RMB cross-boarder trade settlement went ahead smoothly. In July 2009, the PBC, jointly with other 5 ministries, released the Administrative Measures on Pilot RMB Settlement in Cross-border Trade, allowing 365 enterprises in Shanghai, Guangzhou, Shenzhen, Zhuhai and Dongwan to conduct pilot RMB cross-border trade settlement. In June 2010 and August 2011, the pilot scheme was expanded twice, covering the whole country and overseas settlement places encompassing all countries and regions. In addition, business scope covered trade in goods, services and other current account items. From June 2012, all domestic enterprises with business scope in goods trade, services trade and other current account items could choose to price and settle in RMB. In July 2013, the procedure for RMB cross-border settlement under current account was simplified, and relative efficiency was enhanced as well. In December 2013, the administration of RMB purchase and sale was shifted from quota management to macro-prudential management. In March 2014, the PBC, jointly with other ministries, delegated the approval and review power for the name list of export enterprises in goods trade under key supervision to lower levels, and streamlined administrative procedures. In June 2014, the RMB cross-border trade settlement for private goods and services was conducted nationwide, and banking financial institutions and payment institutions were supported to cooperate to conduct cross-border RMB settlement. In November 2014, transnational enterprises were allowed to conduct centralized RMB payment. The use of RMB in trade settlement grew rapidly, and more and more overseas enterprises were willing to receive and pay in RMB.

RMB settlement in direct cross-border investment also proceeded orderly. In 2010, the PBC conducted the pilot RMB cross-border investment and financing on a single case. In October 2010, China's Xinjiang Autonomous Region fist conducted pilot RMB settlement in direct cross-border investment. In January and October 2011, the PBC released the Administrative Measures on Pilot RMB Settlement for Overseas Direct Investment and the Administrative Measures for RMB Settlement for Foreign Direct Investment, allowing qualified domestic companies to use RMB to conduct overseas direct investment, and overseas companies or individuals, as required, to use RMB to conduct direct investment in China. In this way, RMB cross-border business expanded fror current account to certain capital account items. In September 2013, overseas investors were allowed to use RMB to establish, conduct merge and acquisition, and take share in financial institutions. In June 2014, the procedure of RMB settlement for cross-border direct investment were further simplified. In November 2014, qualified transnational companies were allowed to conduct two-way cross-border RMB fund pooling businesses.

RMB cross-border financing policy was gradually relaxed. In October 2011, domestic banks were allowed to conduct RMB loan business for overseas projects. In July 2013, domestic banks were allowed to conduct cross-border transfer for cross-border RMB trade financing assets, domestic non-financial institutions were allowed to extend RMB loans *overseas and provide external RMB guarantees, and the financing maturity and quota in RMB account by domestic representative bank to overseas participating bank were relaxed as well. In September 2014, the cross-border RMB settlement policy for the issue of RMB debt-financing instruments on domestic inter-bank bond market by overseas non-financing enterprises was clarified.*

In 2015, cross-border RMB receipts and payment totaled 12.1 trillion yuan, growing 22% from the previous year. Specifically, the real receipts registered 6.19 trillion yuan, real payment stood at 5.91 trillion yuan and the net inflow was 271.46 billion yuan. Cross-border RMB receipts and payment under current account registered 7.23 trillion yuan, growing by 10% from the previous year and an increase of over 13 times as much as that in 2010. Specifically, the receipts and payment for trade in goods and trade in services and other current account items were 6.39 trillion yuan and 843.22 billion yuan respectively. Cross-border RMB receipts and payment under capital account registered 4.87 trillion yuan, growing by 43% from the previous year. The overseas geographical area for RMB cross-border business also expanded. By end-2014, a total of 189 countries and regions had cross-border RMB receipts or payment with China. On October 8, 2015, the RMB Cross-border Inter-bank Payment System (CIP) (Phase I) was successfully launched, which provided fund clearing and settlement services for RMB cross-boarder and offshore business to both domestic and overseas financial institutions. It signaled the modern clearing system consisting both RMB domestic payment system and international system made important headway.

4. The reform and opening-up of China's financial market moved ahead steadily and the asset allocation function for RMB as an international currency strengthened

China has successively launched a series of market-based reform policies, which further consolidated the market foundation of RMB internationalization. The restriction of deposit and lending rate was relaxed successively, and market-based interest rate reforms continued to proceed. In August 2006, the floating range of personal housing mortgage rate was expanded to 85% of the benchmark rate. In June 2012, the floating upper ceiling of deposit rate was adjusted as 110% of the benchmark rate. In July 2013, the management over lending rate was abolished and the lending rate became market-based. In November 2014, March 2015, May 2015 and October 2015, the upper ceiling of RMB deposit rate was gradually lifted and finally removed, and marker-based RMB deposit rate reform was nearly completed. The reform of the forming mechanism of RMB exchange rate proceeded smoothly, and RMB exchange rate became more market-based. In May 2007, April 2012 and March 2014, the floating range of RMB/USD spot trading price gradually expanded to 2% up or down around the central parity. On August 11, 2015, the forming mechanism of the central parity of RMB exchange rate was changed as market makers provided the central parity quotation to CFETS, with reference to the closing exchange rate of the previous day on the FX market, under the consideration of FX supply and demand, and the movement of main international currencies. As a result, the flexibility of RMB exchange rate strengthened, and the price forming mechanism became more market-oriented.

China's financial market continued the reform and opening-up process, and RMB convertibility improved steadily. In August 2010, overseas central banks or monetary authorities, overseas institutions such as RMB clearing bank and overseas participating banks were allowed to enter the interbank bond market. In December 2011, RQFII systemic arrangement was released, allowing qualified subcompanies of domestic fund companies and securities companies in Hong Kong China to conduct securities investment in Mainland China within the approved investment quota. In March 2013, the PBC, CSRC, SAFE revised pilot RQFII measures, expanded the scope of pilot institutions and relaxed investment ratio restriction. In November 2014, RQDII systemic arrangement was released, allowing qualified domestic institutional investors to use domestic RMB funds to invest RMB-denominated products on the overseas financial market. In the same month, the connect between Hong Kong and Shanghai stock markets was officially initiated, and investors from these two sides were allowed to buy and sell shares listed on the exchange of the counterparty. The daily cross-border trading quota was 23.5 billion yuan. In May 2015, overseas RMB clearing banks and participating banks that were already allowed to enter the inter-bank bond market was permitted to conduct bond repo. In July 2015, China's interbank bond market relaxed investment quota restriction for overseas central banks (monetary authorities)& other official reserve management institutions, international financial organizations, and sovereign wealth fund on the interbank market, and expanded product types. In September 2015, overseas financial institutions were, for the first time, allowed to issue RMB bond on the inter-bank bond market. In November 2015, foreign governments, for the first time, registered and issued RMB bond on the interbank bond market. The interbank FX market was opened to overseas central banking institutions in September, and opened further to qualified overseas participating banks for RMB purchase and sale business in September.

As various reform and opening up measures gradually delivered effects, overseas participants on China's financial market continued to grow in number, the asset allocation function of RMB as an international currency enhanced steadily, and China's FX market became more brisk. By end-2015, the number of overseas investors on interbank bond market registered 306, growing by 68.13% from the previous year. The international membership in Shanghai Gold Exchange registered 63, growing by 57.5% over the end of 2014. By end-2015, pilot RQFII expanded from initial Hong Kong area to 16 countries and regions, with total quota reaching 1.21 trillion yuan. The accumulative quota approved by SAFE to RQFIIs reached 444.325 billion yuan. RMB assets held by non-residents reached certain levels. According to incomplete statistics, by end-April, 2015, outstanding balance of RMB domestic assets such as bonds, stocks and deposits held by overseas central banks or monetary authorities reached 666.7 billion yuan. By end-September, 2015, outstanding balance of RMB deposits held by non-residents (overseas institutions and individuals) in domestic banks reached 2,468.7 billion yuan, and outstanding balance of debt securities held by non-residents posted 1,547.4 billion yuan. The trading volume of RMB FX market continued to grow. In 2015, China's domestic RMB FX market (including interbank and retail markets) saw daily turnover of USD

72.8 billion, growing by 32.36% from that in 2014. For the whole year, RMB FX spot trading on the inter-bank market posted USD 4.86 trillion, growing by 17.96% from the previous year, RMB FX swap trading totaled USD 8.35 trillion, growing by 85.97% form the previous year, and RMB FX forward trading equaled to USD 37.2 billion, decreasing by 29.68% from the previous year.

Appendix I Highlights of China's Financial Market Development, 2015

On January 5, the People's Bank of China (PBC) issued the Announcement (〔2015〕No.1) and the Announcement (〔2015〕No.2), designating the Bank of China (Malaysia) Berhad and the Industrial and Commercial Bank of China (Thai) Public Company Limited as the RMB clearing bank in Kuala Lumpur and Bangkok, respectively.

On January 9, the China Securities Regulatory Commission (CSRC) released the *Administrative Measures for the Pilot Program of Stock Option Trading* and the *Guidelines for the Participation of Securities and Futures Institutions in the Pilot Program of Stock Option Trading*, effective as of the date of issuance. On the same day, the CSRC approved the pilot trading on the Shanghai Stock Exchange of stock options based on the SSE 50 ETF. The contract would be formally listed on February 9, 2015.

On January 13, the PBC issued the *Guiding Opinions on Promoting the Sound Development of Mobile Financial Technology Innovations*.

On January 16, the PBC released the *Notice on Improving the Policy for the Administration of Credit Policy-Backed Relending to Promote Lending to the Agricultural Sector, Rural Areas, Farmers and Micro and Small Enterprises*.

On January 16, the CSRC released the *Administrative Measures for the Issuance and Trading of Corporate Bonds*.

On January 19, the China Banking Regulatory Commission (CBRC) and the National Development and Reform Commission (NDRC) jointly issued the *Energy Efficiency Credit Guidelines.*

On January 21, the PBC and the Swiss National Bank signed a memorandum of understanding on the establishment of RMB clearing arrangements in Switzerland, and agreement was reached to extend the pilot scheme of RMB Qualified Foreign Institutional Investor (RQFII) to Switzerland with an investment quota of 50 billion yuan.

On January 22, the PBC and the China Insurance Regulatory Commission (CIRC) jointly released the Announcement (〔2015〕No.3), allowing insurance companies to issue capital replenishment bonds in the interbank bond market.

On February 4, the PBC decided to cut the RMB reserve requirement ratio (RRR) for financial institutions by 0.5 percentage points, effective from February 5, 2015. Furthermore, in order to enhance the capacity of financial institutions to support structural adjustment, and to step up support for micro and small enterprises (MSEs), the agricultural sector, rural areas and farmers, and major water conservancy projects, the PBC decided to lower the RRR by an additional 0.5 percentage points for urban commercial banks and non-county level rural commercial banks that have met the criteria for targeted RRR reduction, and cut the RRR for the Agricultural Development Bank of China by an additional 4 percentage points.

On February 11, the PBC decided to expand the use of the Standing Lending Facility (SLF) to PBC branches nationwide, based on replicable experience gained from the SLF trial operations in 10 provincial-level branches.

On February 12, to further improve the policy framework for the regulation of leverage ratios in China's banking sector, the CBRC released officially the revised version of the *Measures for the Administration of the Leverage Ratio of Commercial Banks* (CBRC Decree〔2011〕No.3).

On February 28, the PBC decided to cut RMB benchmark loan and deposit interest rates for financial institutions as of March 1, 2015. The one-year RMB benchmark loan interest rate and deposit interest rate would both be lowered by 0.25 percentage points, to 5.35 percent and 2.5 percent, respectively. At the same time, the upper limit of the floating range for deposit interest rates would be raised from 1.2 to 1.3 times the benchmark level in support of market-oriented interest rate reform. Adjustments were made correspondingly to benchmark interest rates on deposits and loans of other maturities, and to interest rates on personal housing provident fund deposits and loans.

On March 6, the CSRC approved the trading of 10-year treasury bond futures on the China Financial Futures Exchange (CFFEX). The contract would be listed on March 20, 2015.

On March 13, the CSRC approved the launch of nickel and tin futures on the Shanghai Futures Exchange. The contracts would be listed on March 27, 2015.

On March 18, upon approval by the State Council, the PBC and the Central Bank of Suriname signed a 1 billion yuan/520 million Surinamese dollar bilateral local currency swap agreement in a bid to strengthen bilateral financial cooperation, facilitate bilateral trade and investment, and safeguard regional financial stability. The agreement is valid for three years and can be extended upon mutual consent.

On March 20, the CSRC approved the trading of SSE50 and CSI500 stock index futures on the CFFEX. The contracts would be listed on April 16, 2015.

On March 25, upon approval by the State Council, the PBC and the Central Bank of Armenia signed a 1 billion yuan/77 billion Armenian dram bilateral local currency swap agreement to facilitate bilateral trade and investment. The agreement is valid for three years and can be extended upon mutual consent.

On March 26, the PBC issued the Announcement (〔2015〕No.7) to streamline the administration of credit asset-backed securities issuance, improve the efficiency and transparency of issuance administration, promote higher quality information disclosure by trustees and originators, protect effectively the legitimate rights and interests of investors, and promote the sound development of credit asset-backed securitization.

On March 27, the CSRC issued the *Guidelines for the Participation of Publicly Offered Securities Investment Funds in Trading via the Shanghai-Hong Kong Stock Connect*, effective as of the same day.

On March 30, in order to further improve personal home loan policy, support people's demand for self-use housing and housing upgrade, and promote the stable and sound development of the property market, the PBC, the Ministry of Housing and Urban-Rural Development and the CBRC jointly released the *Notice on Issues Concerning Personal Home Loan Policy* (PBC Document〔2015〕No.98).

On March 31, the *Deposit Insurance Regulation* was issued, effective as of May 1, 2015.

On April 10, upon approval by the State Council, the PBC and the South African Reserve Bank signed a 30 billion yuan/54 billion South African rand bilateral local currency swap agreement in a bid to facilitate bilateral trade and investment and maintain regional financial stability. The agreement is valid for 3 years and can be extended if both sides agree.

On April 14, in order to further strengthen insurance companies' disclosure of fund use information and prevent investment risks, the CIRC issued the *Information Disclosure Standards for Insurance Companies on the Use of Funds No.2: Persons Responsible for Risks*.

On April 17, the CSRC and the Polish Financial Supervision Authority signed the *Memorandum of Understanding Regarding Securities and Futures Regulatory Cooperation*.

On April 19, the PBC decided to cut the RMB RRR for all depository financial institutions by 1 percentage point, effective from April 20, 2015. Furthermore, in order to enhance the capacity of financial institutions to support structural adjustment, and to step up support for MSEs, the agricultural sector, rural areas and farmers, and major water conservancy projects, as of April 20, an extra 1 percentage point would be reduced for rural financial institutions such as rural credit cooperatives (RCCs) and village and township banks, and the RRR for all rural cooperative banks would be lowered to the level applicable to RCCs; an extra 2 percentage points would be reduced for the Agricultural Development Bank of China; the RRR could be lowered by an additional 0.5 percentage points for state-owned banks and joint-stock commercial banks that complied with prudential regulatory requirements and extended a certain share of loans to MSEs or to the agricultural sector, rural areas and farmers.

On April 29, with the approval of the State Council, the RQFII pilot scheme was expanded to include Luxembourg with an initial investment quota of 50 billion yuan.

On May 9, the PBC issued the Announcement (〔2015〕No.9), abolishing examination and approval procedures for bond trading and circulation in the interbank bond market, providing that lawfully issued bonds could be traded and circulated in the interbank bond market right after the completion of issuance, and reinforcing requirements for information disclosure and investor protection, in an effort to further promote the regulated development of the bond market.

On May 10, the PBC decided to cut RMB benchmark loan and deposit interest rates for financial institutions as of May 11, 2015. The one-year RMB benchmark loan interest rate and deposit interest rate would both be lowered by 0.25 percentage points, to 5.1 percent and 2.25 percent, respectively. At the same time, the upper limit of the floating range for deposit interest rates would be raised from 1.3 to 1.5 times the benchmark level in support of market-oriented interest rate reform. Adjustments were made correspondingly to benchmark interest rates on deposits and loans of other maturities, and to interest rates on personal housing provident fund deposits and loans.

On May 11, upon approval by the State Council, the PBC and the National Bank of the Republic of Belarus signed a bilateral local currency swap agreement worth 7 billion yuan, or 16 trillion Belarusian rubles. The agreement is valid for three years and can be extended if both sides agree.

On May 13, the CSRC and the National Bank of Kazakhstan signed the *Memorandum of Understanding on Securities and Futures Regulatory Cooperation Between China and Kazakhstan*.

On May 15, the CSRC issued the *Guiding Opinions on Enhancing the Supervision of Unlisted Public Companies.*

On May 19, the CSRC and the State Committee for Securities of the Republic of Azerbaijan signed the *Memorandum of Understanding Regarding Securities and Futures Regulatory Cooperation Between China and Azerbaijan.*

On May 22, in order to deepen financial cooperation between the Chinese mainland and Hong Kong and promote development of each other's capital markets, the CSRC and the Securities and Futures Commission of Hong Kong decided to launch mutual recognition of publicly offered securities investment funds between the mainland and Hong Kong.

On May 25, upon approval by the State Council, the PBC and the Central Bank of Chile signed a bilateral local currency swap agreement, with a swap line of 22 billion yuan, or 2.2 trillion Chilean pesos. The agreement is valid for three years and can be extended if both sides agree. On the same day, the two central banks signed a memorandum of understanding on establishing RMB clearing arrangements in Chile, and agreement was reached to expand the RQFII pilot scheme to include Chile with an investment quota of 50 billion yuan.

On May 25, the PBC issued the Announcement (〔2015〕No.10). designating the Chilean branch of the China Construction Bank as the RMB clearing bank in Chile, in follow-up to the *Memorandum of Understanding on Cooperation Between the People's Bank of China and the Central Bank of Chile*.

On June 2, the PBC issued and put into effect the *Interim Measures for the Administration of Certificates of Deposit*. A certificate of deposit (CD) is a book-entry large-denomination certificate of deposit issued by depository financial institutions in the banking industry to non-financial institutional investors. The introduction of CDs would help broaden in an orderly way the range of liability products whose prices are set by market forces, and improve market-based interest rate formation mechanism. It would also help enhance financial institutions' independent pricing abilities, and foster the idea of market-based pricing among market participants, so as to serve as useful explorations and valuable experience for further advancing interest rate marketization.

On June 25, the PBC issued the Announcement (〔2015〕No.14). designating the Hungarian branch of the Bank of China as the RMB clearing bank in Hungary, in follow-up to the *Memorandum of Understanding on Cooperation Between the People's Bank of China and the Magyar Nemzeti Bank*.

On June 26, the CBRC signed a memorandum of understanding on cooperation with Indonesian and Lithuanian supervisory authorities, respectively.

On June 26, the CSRC issued the *Interim Measures for the Administration of the Engagement of Overseas Traders and Overseas Brokers in the Trading of Specific Domestic Futures Contracts*, effective from August 1, 2015. At the same time, pursuant to Section 4 of Article II which provides that "specific domestic futures contracts" as used in the Measures shall be determined and announced by the CSRC, the CSRC designated crude oil futures as a specific domestic contract.

On June 27, the PBC and the Magyar Nemzeti Bank signed a memorandum of understanding on establishing RMB clearing arrangements in Hungary and the *Agency Agreement for the People's Bank of China to Act on Behalf of the the Magyar Nemzeti Bank to Invest in China's Interbank Bond Market*. Agreement was also reached to expand the RQFII pilot scheme to include Hungary with an investment quota of 50 billion yuan.

On June 27, the PBC decided to provide targeted RRR cuts for selected financial institutions as of June 28, 2015, in an effort to step up support for the development of the real economy and promote structural adjustment. First, the RRR would be lowered by 0.5 percentage points for urban commercial banks and non-county level rural commercial banks that met the targeted RRR reduction criteria in terms of the share of loans to the agricultural sector, rural areas and farmers in total lending. Second, a RRR cut of 0.5 percentage points would be applied to large state-owned commercial banks, joint-stock commercial banks and foreign-funded banks that met the targeted RRR reduction criteria in lending to the agricultural sector, rural areas and farmers, or to MSEs. Third, the RRR would be reduced by 3 percentage points for finance companies. On the same day, to further reduce financing costs for enterprises, the PBC decided to cut RMB benchmark loan and deposit interest rates for financial institutions. The one-year benchmark loan interest rate and deposit interest rate would both be lowered by 0.25 percentage points, to 4.85 percent and 2 percent, respectively. Adjustments were made correspondingly to benchmark interest rates on deposits and loans of other maturities, and to interest rates on personal housing provident fund deposits and loans.

On June 29, in order to regulate the procedures of cross-custodian bond lending in the interbank bond market and protect the legitimate rights and interests of market participants, the China Central Depository & Clearing Co., Ltd. (CCDC), the National Interbank Funding Center and the Shanghai Clearing House jointly formulated the *Rules for (Manually Processed) Cross-Custodian Bond Lending in the interbank Bond Market*.

On July 1, the PBC issued the Announcement (〔2015〕No.16). designating the Bank of China Johannesburg branch as the RMB clearing bank in South Africa, in follow-up to the *Memorandum of Understanding on*

Cooperation Between the People's Bank of China and the South African Reserve Bank.

On July 1, the CSRC revised upon deliberation the *Measures for the Administration of Margin Trading and Short Selling by Securities Companies*.

On July 7, the PBC and the South African Reserve Bank signed a memorandum of understanding on establishing RMB clearing arrangements in South Africa. The PBC would later designate the RMB clearing bank in South Africa.

On July 14, the PBC issued the *Notice on Issues Concerning RMB Investment in the Interbank Market by Overseas Central Banks, International Financial Organizations and Sovereign Wealth Funds* (PBC Document〔2015〕No.220), enabling overseas central banks and similar institutions to access the interbank market through a streamlined process, removing quota limits, allowing them to choose either the PBC or an interbank market settlement agent to conduct trade and settlement on their behalf, and expanding their investment options.

On July 15, and July 20, China injected from its foreign exchange reserves USD48 billion and USD45 billion into the China Development Bank and the Export-Import Bank of China, respectively, to replenish their capital as required by the reform agenda.

On July 18, the PBC, Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Finance (MOF), State Administration for Industry and Commerce, Legislative Affairs Office of the State Council, CBRC, CSRC, CIRC, and State Internet Information Office jointly issued the *Guiding Opinions on Promoting the Healthy Development of Internet Finance* (PBC Document〔2015〕No.221).

On July 20, the PBC released the Announcement (〔2015〕No.19) to address issues on the administration of cross-border settlement of domestic crude oil futures trading.

On July 22, based on local circumstances, the PBC, NDRC, CBRC, CSRC, CIRC and the People's Government of Sichuan Government, in collaboration with the Office of the Central Rural Work Leadership Group, MOF, Ministry of Land and Resources, Ministry of Housing and Urban-Rural Development and Ministry of Agriculture, formulated and issued the *Pilot Scheme for Comprehensive Rural Financial Services Reform in Chengdu*.

On August 11, the PBC decided to improve quotation of the RMB central parity against the U.S. dollar to enhance its market-orientation and benchmark status.

On August 25, the PBC decided to cut RMB benchmark loan and deposit interest rates for financial institutions as of August 26, 2015 to further reduce financing costs for enterprises.

On August 31, the CSRC, MOF, State-owned Assets Supervision and Administration Commission of the State Council and CBRC jointly issued the Notice on Encouraging Merger and Acquisition, Restructuring, Cash Dividend Distribution and Share Buyback by Listed Companies. On the same day, the PBC issued the *Notice on Strengthening Macroprudential Regulation of Currency Forward Sales* (PBC Document〔2015〕

No.273), including currency forward sales in macroprudential regulation framework and introducing reserve requirements on financial institutions that conduct currency forward sales for clients.

On September 6, the PBC lowered the RMB RRR for financial institutions by 0.5 percentage points. At the same time, targeted RRR cuts were provided for selected financial institutions. The RRR was reduced by an additional 0.5 percentage points for rural financial institutions such as rural commercial banks, rural cooperative banks, rural credit cooperatives and village and township banks. The RRR was cut by an extra 3 percentage points for financial leasing companies and auto finance companies.

On September 7, the PBC issued the *Notice on Further Facilitating Two-Way Cross-Border RMB Cash Pooling by Multinationals* (PBC Document 〔2015〕No.279).

On September 11, in order to further improve the reserve requirement system, optimize monetary policy transmission mechanism and enhance the flexibility of financial institutions' liquidity management, the PBC decided to reform reserve requirement assessment as of September 15, 2015, replacing the date-based methodology with an average-based approach.

On September 11, the CIRC issued the *Interim Measures for the Administration of Asset-Backed Scheme Business* and the *Notice on Issues Concerning Setting up Private Equity Funds with Insurance Capital.*

On September 17, the PBC issued the Announcement (〔2015〕No.27). designating the Industrial and Commercial Bank of China (Argentina) as the RMB clearing bank in Argentina, in follow-up to the *Memorandum of Understanding on Cooperation Between the People's Bank of China and the Central Bank of Argentina.*

On September 17, the PBC issued the Announcement (〔2015〕No.29). designating the Bank of China (Zambia) Ltd. as the RMB clearing bank in Zambia, in follow-up to the *Memorandum of Understanding on Cooperation Between the People's Bank of China and the Bank of Zambia.*

On September 22, the PBC approved the issuance of 1 billion yuan and 10 billion yuan worth of RMB-denominated financial bonds by HSBC and the Bank of China (Hong Kong) Ltd., respectively, in China's interbank bond market. This was the first time that international commercial banks were given approval to issue RMB-denominated bonds in the interbank bond market.

On September 23, the CIRC issued the *Opinions on Deepening the Reform of the Insurance Brokerage Market.*

On September 25, the CCDC, the National Interbank Funding Center and the Shanghai Clearing House jointly formulated the *Operational Guide for Network Connection and Account Opening by Relevant Overseas Institutional Investors in the Interbank Market.* On the same day, the PBC issued the *Notice on Expanding the Pilot Program of Credit Asset-Pledged Relending* (PBC Document〔2015〕No.299), announcing its decision to expand the pilot program to nine provinces and municipalities, including Shanghai, Tianjin, Liaoning, Jiangsu, Hubei, Sichuan, Shaanxi, Beijing and Chongqing.

On September 30, the PBC issued the Announcement (〔2015〕No.31), allowing overseas central banks (monetary authorities) and other official reserve management institutions, international financial institutions and sovereign wealth funds to enter China's interbank market in compliance with laws and regulations. On the same day, the PBC and the CBRC jointly released the *Notice on Issues Concerning Further Improvement of Differentiated Home Loan Policy* (PBC Document 〔2015〕No.305) in a bid to further improve housing-related financial services and support reasonable housing consumption.

On October 10, in order to implement the instructions of the State Council on stepping up reform and innovation as well as support for the real economy, the PBC decided, in line with the requirements of its 2015 Work Conference, to expand the pilot program of credit asset-pledged relending to nine provinces and municipalities, including Shanghai, Tianjin, Liaoning, Jiangsu, Hubei, Sichuan, Shaanxi, Beijing and Chongqing, based on replicable experience gained from trial operations of the program in Shandong and Guangdong.

On October 20, the PBC issued in London through the book building process 5 billion yuan of RMB-denominated one-year central bank bills, with a coupon rate of 3.1 percent.

On October 20, the PBC and the Bank of England renewed their bilateral local currency swap agreement, with the swap line enlarged from 200 billion yuan/20 billion pounds to 350 billion yuan/35 billion pounds. The agreement has a three-year maturity and can be extended upon mutual consent.

On October 23, the PBC decided to cut RMB benchmark loan and deposit interest rates for financial institutions, effective from October 24, 2015, to further reduce social financing costs.

On October 29, the PBC, Ministry of Commerce, CBRC, CSRC, CIRC, State Administration of Foreign Exchange (SAFE) and Shanghai Municipal People's Government jointly released the Notice on Issuing the *Plan for Further Promoting Pilot Financial Liberalization and Innovation in the China (Shanghai) Pilot Free Trade Zone and Accelerating the Development of Shanghai into an International Financial Center.*

On October 30, the CSRC released the *Provisions on Regulatory Duties of Regional Offices of the China Securities Regulatory Commission*, effective from December 1, 2015.

On November 6, pursuant to the *Law of the People's Republic of China on the People's Bank of China* and the *Regulation of the People's Republic of China on Foreign Exchange Administration,* the PBC and the SAFE formulated the *Operational Guide for Fund Management in Cross-Border Offering and Sales of Securities Investment Funds Between Mainland China and Hong Kong*, in an effort to regulate the mutual recognition of funds regime between the mainland and Hong Kong.

On November 9, with the authorization of the PBC, the China Foreign Exchange Trade System (CFETS) announced the start of direct trading between the RMB and the Swiss franc in the interbank foreign exchange market.

On November 13, the General Office of the State Council issued the *Guiding Opinions on Strengthening the Protection of Financial Consumers' Rights and Interests*.

On November 16, upon approval by the State Council, the PBC and the Central Bank of the Republic of Turkey renewed their bilateral local currency swap agreement, with the swap line enlarged from 10 billion yuan/3 billion Turkish lira to 12 billion yuan/5 billion Turkish lira. The agreement has a three-year maturity and can be extended upon mutual consent. The renewal of the swap agreement would facilitate bilateral trade and investment and strengthen financial cooperation between the two central banks.

On November 17, upon approval by the State Council, the investment quota for Singapore under the RQFII scheme was increased to 100 billion yuan.

On November 20, the meeting was held in Beijing to establish the Specialized Committee on Asset Securitization and Structured Finance under the National Association of Financial Market Institutional Investors (NAFMII). On the same day, the CSRC issued the *Opinions on Further Promoting the Development of the National Equities Exchange and Quotations* to speed up the development of the national share transfer system.

On November 23, upon approval by the State Council, the RQFII pilot scheme was expanded to include Malaysia with an investment quota of 50 billion yuan.

On November 25, the first batch of overseas central banks and similar institutions formally entered China's interbank foreign exchange market upon completion of their registration with the CFETS.

On November 27, the NAFMII accepted the registration by the Canadian Province of British Columbia for the issuance of 6 billion yuan worth of RMB-denominated bonds in China's interbank bond market.

On November 30, the Executive Board of the International Monetary Fund (IMF) made the decision to include the RMB in the basket of currencies that make up the Special Drawing Right (SDR). Accordingly, the SDR basket will be expanded to include five currencies, i.e., the U.S. dollar, the euro, the RMB, the Japanese yen and the British pound. The RMB will be weighted at 10.92 percent in the SDR basket, while weightings will be 41.73 percent for the U.S. dollar, 30.93 percent for the euro, 8.33 percent for the Japanese yen and 8.09 percent for the British pound. The new SDR basket will take effect on October 1, 2016.

On December 8, the NAFMII accepted the registration by the Korean government for the issuance of 3 billion yuan worth of RMB-denominated sovereign bonds in China's interbank bond market. The registration and issuance of RMB-denominated Korean sovereign bonds would further diversify products in the interbank bond market, promote opening up of the bond market, enhance bilateral financial cooperation and boost Sino-Korean economic and trade ties.

On December 11, the CIRC issued the *Notice on Issues Concerning Prudential Regulation of*

Insurance Companies' Asset Allocation to prevent asset–liability mismatch risk and liquidity risk for insurance companies under new circumstances and strengthen regulation of their asset allocation.

On December 14, the PBC and the Central Bank of the United Arab Emirates renewed their bilateral local currency swap agreement, with the swap line continuing to be 35 billion yuan/20 billion United Arab Emirates dirhams. The agreement is valid for three years and can be extended upon mutual consent. On the same day, the two central banks signed a memorandum of understanding on establishing RMB clearing arrangements in the United Arab Emirates, and agreement was reached to extend the RQFII pilot scheme to the United Arab Emirates with an investment quota of 50 billion yuan.

On December 14, the Board of Governors of the European Bank for Reconstruction and Development (EBRD) approved China's application for membership of the EBRD. China would formally become a member of the EBRD following the completion of necessary domestic legal formalities.

On December 15, the PBC issued the Announcement (〔2015〕No.39) on the issuance of green financial bonds in the interbank bond market. Green financial bonds were launched in the interbank bond market.

On December 17, upon approval by the State Council, the RQFII pilot scheme was extended to Thailand with an investment quota of 50 billion yuan. The expansion of the RQFII pilot scheme to Thailand, as testament to the deepening financial cooperation between the two countries, would help broaden RMB asset allocation channels for overseas investors, further open up domestic capital markets and promote bilateral trade and investment facilitation.

On December 18, the CSRC and the PBC jointly issued the *Measures for the Regulation of Money Market Funds*, effective from February 1, 2016.

On December 21, the PBC and the SAFE issued the Announcement (〔2015〕No.40). Accordingly, daily trading hours of the interbank foreign exchange market would be extended to 11:30 p.m. Beijing time. At the same time, further steps were taken to introduce qualified overseas entities into the market. After applying to the CFETS and becoming members of the interbank foreign exchange market, eligible overseas participating banks in the RMB purchase and sale business could access the interbank foreign exchange market and trade all the listed categories via the CFETS trading system.

On December 23, the CIRC issued the *Information Disclosure Standards for Insurance Companies on the Use of Funds No.3: Acquisition of Shares of Listed Companies*, in an effort to regulate information disclosure related to acquisition of listed companies' shares by insurance companies, enhance market information transparency, urge insurance companies to strengthen asset-liability management and prevent investment risk.

On December 27, the Standing Committee of the 12th National People's Congress reviewed and approved at its 18th meeting the *Decision on Authorizing the State Council to Adjust the*

Application of Relevant Provisions of the Securities Law of the People's Republic of China in Carrying Out the Reform of the Registration-Based Initial Public Offering System (Draft). The State Council is explicitly authorized to adjust the application of existing provisions regarding approval-based IPO in the *Securities Law of the People's Republic of China* and make institutional arrangements specially for the registration-based IPO reform in line with the requirements of the reform. The approval of the decision is a sign that advancing the registration-based IPO reform has a clear legal basis.

On December 28, the PBC issued and put into effect the *Measures for the Administration of Online Payment Business of Non-Bank Payment Institutions*.

Appendix II China Financial Market Statistics

Table 1 Major Macroeconomic and Financial Indicators, 1998—2015 (Year-End Balance)

Item	1998	1999	2000	2001	2002	2003	2004
GDP	84,402	89,677	99,215	109,655	120,333	135,823	159,878
Growth rate	7.8	7.6	8.4	8.3	9.1	10	10.1
Exports & imports (USD100 million, 100 million yuan)	3,239.3	3,607	4,743	5,097.7	6,208	8,512	11,547
Growth rate	-0.4	11.3	31.5	7.5	21.8	37.1	35.7
Exports (USD100 million, 100 million yuan)	1,837.6	1,949	2,492	2,661	3,256	4,384	5,934
Imports (USD100 million, 100 million yuan)	1,401.7	1,658	2,251	2,436.1	2,952	4,128	5,614
Foreign exchange reserves (USD100 million)	1,450.0	1,546.8	1,655.7	2,121.7	2,864	4,033	6,099
• Foreign direct investment (USD100 million)	454.6	404	408	468.5	527	535	606
• Fiscal revenue	9,876	11,444.1	13,380.1	16,371	18,914	21,691	26,355.9
• Fiscal expenditure	10,798.2	13,187.7	15,879.4	18,844	22,012	24,607	28,360.8
• Deficit/surplus	-922.2	-1,743.6	-2,499.3	-2,473	-3,098	-2,916	-2,004.9
Money supply (M2)	104,499	119,898	134,610.3	158,301.9	185,007	221,222.8	254,107
Growth rate	15.3	14.7	12.3	17.6	16.9	19.6	14.9
• Money supply (M1)	38,953.7	45,837.2	53,147.2	59,871.6	70,822	84,118.6	95,969.7
Growth rate	11.9	17.7	15.9	12.7	18.3	18.8	14.1
• Money supply (M0)	11,204.2	13,455.5	14,652.7	15,688.8	17,278	19,746	21,468.3
Growth rate	10.1	20.1	8.9	7.1	10.1	14.3	8.7
Per capita disposable income of urban residents (yuan)	5,245	5,854	6,280	6,859.6	7,703	8,500	9,422
Real growth rate	5.8	9.3	6.4	8.5	13.4	9	7.7
• Net income of rural residents (yuan)	2,163.6	2,210	2,253	2,366	2,475.6	2,622	2,936
Real growth rate	4.3	3.8	2.1	4.2	4.8	4.3	6.8
• Total deposits with financial institutions	95,697.9	108,779	123,804.4	143,617.2	170,917.4	208,055.6	241,424.3
Growth rate	16.1	13.7	13.8	16.0	19.0	21.7	16.0
• Total loans by financial institutions	86,524.1	93,734.3	99,371.1	112,314.7	131,293.9	158,996.2	178,197.8
Growth rate	15.5	8.3	6.0	13.0	16.9	21.1	12.1
CPI	-0.8	-1.4	0.4	0.7	-0.8	1.2	3.9

Notes: 1. Past data have been adjusted according to latest statistical releases.
2. From 2009 onwards, the value of exports, the value of imports, and the total value of exports and imports are denominated in RMB.

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

Units: 100 million yuan, %

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
184,937	216,314	265,810	314,045	340,903	408,903	484,124	534,123	588,019	636,463	676,708
10.4	12.7	14.2	9.6	9.2	10.6	9.5	7.7	7.7	7.4	6.9
14,221	17,607	21,738	25,616	22,073	201,723	236,402	244,160	258,168	264,335	245,741
23.2	23.8	23.5	17.8	-13.9	34.7	17.2	3.2	5.7	2.39	-7
7,620	9,690	12,205	14,307	12,016	107,023	123,241	129,359	137,131	143,912	141,255
6,601	7,915	9,561	11,326	10,059	94,700	113,161	114,801	121,037	120,423	104,485
8,189	10,663	15,282	19,460	23,992	28,473	31,811	33,116	38,213	38,430	33,304
603	694.7	747.7	924	900	1,057	1,160	1,117	1,176	1,196	1,263
31,628	38,760.2	51,304	61,330	68,518	83,102	103,874	117,254	129,210	140,350	152,217
33,708.1	40,222.7	49,565.4	62,593	76,300	89,874	109,248	125,953	140,213	151,662	175,768
-2,080.1	-1,462.5	1,738.6	-1,263	-7,782	-6,772	-5,374	-8,699	-11,003	-11,312	-23,551
296,040.1	345,577.9	403,401.3	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
16.5	16.7	16.7	17.8	27.6	19.7	13.5	14.4	13.6	11	13.3
107,279.9	126,028.1	152,519.2	166,217.1	220,004.5	266,621.54	289,847.7	308,664.2	337,291.05	348,056.41	400,953.44
11.8	17.5	21.0	9.0	32.4	21.2	7.9	6.5	9.3	3.2	15.2
24,032.8	27,072.6	30,334.3	34,218.96	38,245.97	44,628.17	50,748.46	54,659.77	58,574.44	60,259.53	63,216.58
11.9	12.6	12	12.8	11.8	16.7	13.8	7.7	7.1	2.9	4.9
10,493	11,759	13,786	15,781	17,175	19,109	21,810	24,565	26,955	28,844	31,195
9.6	10.4	12.2	8.4	9.8	7.8	8.4	12.6	9.7	6.8	6.6
3,255	3,587	4,140	4,761	5,153	5,919	6,977	7,917	8,896	9,892	11,422
6.2	7.4	9.5	8	8.5	10.9	11.4	13.5	9.3	11.2	7.5
300,208.6	348,015.6	401,051.4	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
24.3	15.9	15.2	19.3	27.9	19.8	12.7	14.1	13.5	9.6	19.1
206,838.5	238,279.8	277,746.5	320,048.7	425,622.6	509,225.95	581,892.5	672,874.61	766,326.64	867,867.89	993,459.69
16.1	15.2	16.6	15.2	33.0	19.6	14.3	15.6	13.9	13.3	14.5
1.8	1.5	4.8	5.9	-0.7	3.3	5.4	2.6	2.6	2	1.4

Table 2 Composition and Growth of RMB and Foreign Currency Deposits and Loans, 1998—2015 (Year-End Balance)

Item	1998	1999	2000	2001	2002	2003	2004
Total deposits with financial institutions	95,697.9	108,778.9	123,804	143,617.2	170,917.4	208,055.6	241,424.3
YoY growth	16.1	13.7	13.8	16.0	19.0	21.7	16.0
Of which: Deposits of urban & rural residents	53,407.5	59,621.8	64,332.4	73,762.4	86,910.7	103,617.7	119,555.4
YoY growth	17.1	11.6	7.9	14.7	17.8	19.2	15.4
Corporate deposits	32,486.6	37,182.4	44,093.7	51,546.6	60,028.6	72,487.1	84,669.5
YoY growth	13.4	14.5	18.6	16.9	16.5	20.8	16.8
Total loans by financial institutions	86,524.1	93,734.3	99,371.1	112,314.7	131,293.9	158,996.2	178,197.8
YoY growth	15.5	8.3	6.0	13.0	16.9	21.1	12.1
Of which: Short-term loans	60,613.2	63,887.6	65,748.1	67,327.2	76,822.4	87,397.9	90,808.3
YoY growth	9.4	5.4	2.9	2.4	14.1	13.8	3.9
Medium- and long-term loans	20,717.8	23,968.3	27,931.2	39,238.1	51,731.6	67,251.7	81,010.1
YoY growth	33.9	15.7	16.5	40.5	31.8	30.0	20.5

Note: Starting from 2011, monetary aggregates have included deposits of housing provident fund centers and non-depository financial institutions' deposits with depository financial institutions.
Source: The People's Bank of China.

Units: 100 million yuan, %

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
300,208.6	348,015.6	401,051.4	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
24.3	15.9	15.2	19.3	27.9	19.8	12.7	14.1	13.5	9.6	19.1
147,053.7	166,616.2	176,213.3	221,503.47	264,756.9	307,166.39	357,901.58	415,549.87	471,090.18	512,790.14	551,928.92
23.0	13.3	5.8	25.7	19.5	16.0	16.5	16.1	13.4	8.9	7.6
101,750.6	118,851.7	144,814.1	164,385.79	224,360	252,960.27	423,086.61	478,730.2	541,793.87	591,069.28	455,208.83
20.2	16.8	21.8	13.5	36.5	12.7	67.3	13.2	13.2	9.1	-22.9
206,838.5	238,279.8	277,746.5	320,048.68	425,622.6	509,225.95	581,892.5	672,874.61	766,326.64	867,867.89	993,459.69
16.1	15.2	16.6	15.2	33.0	19.6	14.3	15.6	13.9	13.3	14.5
91,157.5	101,698.2	118,898	128,571.47	151,390.7	171,236.64	217,480.1	268,152.19	311,771.97	336,371.27	359,190.66
0.4	11.6	16.9	8.1	17.7	13.11	27	23.3	16.3	7.9	6.8
92,940.5	113,009.8	138,581	164,160.42	235,591.3	305,127.55	333,746.51	363,894.22	410,345.5	471,818.36	537,832.55
14.7	21.6	22.6	18.5	43.5	29.5	9.4	9	12.8	15	14

Table 3 Outstanding Loans, Outstanding Bonds and Stock Market Capitalization As Percentage of GDP, 2006—2015

Units: 100 million yuan, %

Year	GDP	Outstanding loans	Outstanding loans /GDP	Outstanding bonds	Outstanding bonds /GDP	Stock market capitalization	Stock market capitalization /GDP
2006	216,314	238,280	110.2	92,740	42.9	89,404	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	243,939.12	71.6
2010	397,983	509,226	128	205,481	51.6	265,422.59	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	372,546.92	59
2015	676,708	993,460	147	478,990	70.8	531,304.2	78.5

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: The People's Bank of China, China Central Depository & Clearing Co., Ltd., China Securities Depository & Clearing Corp., Ltd. and China Securities Regulatory Commission.

Table 4 Composition of All-System Financing, 2010—2015

Units: 100 million yuan

Year	Financing aggregate	RMB loans	Foreign currency loans	Entrusted loans	Trust loans	Undiscounted bank acceptances	Net bond financing by enterprises	Domestic equity financing by non-financial enterprises	Others
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

Notes: 1. *Net bond financing by enterprises* excludes bonds issued by financial enterprises.
2. *Others* includes insurance claim payments, insurance companies' investment properties, etc..
Source: The People's Bank of China.

Table 5 Interbank Funding and Bond Repo Trading, 1997—2015

Unit: 100 million yuan

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

Source: China Foreign Exchange Trade System.

Table 6 Change in Interbank Funding Market Participants, 1997—2015

Year	Banks	Securities companies	Insurance companies	Trust companies	Finance companies	Leasing companies	Rural credit unions	City credit cooperatives	Asset management companies	Auto finance companies	Others	Total
1997	59	—	—	—	—	—	—	—	—	—	37	96
1998	165	—	—	—	—	—	—	—	—	—	2	167
1999	187	7	—	—	—	—	99	—	—	—	3	296
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

Note: *Other* includes private banks.
Source: National Interbank Funding Center.

Table 7 Bill Market, 1998—2015

Unit: 1 trillion yuan

Year	Cumulative value of bills drawn	Cumulative value of bills discounted
1998	0.38	0.27
1999	0.51	0.25
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

Source: The People's Bank of China.

Table 8 Bond Market Trading, 2006—2015

Unit: 100 million yuan

Year	Inter-bank bond market				Stock exchange treasury bond market				OTC market	
	Spot trading	YoY change (%)	Repo trading	YoY change (%)	Spot trading	YoY change (%)	Repo trading	YoY change (%)	Turnover	YoY change (%)
2006	102,558.6	70.55	265,912.71	67.23	1,977.83	—	16,299.25	—	42.8	-34.86
2007	156,038.21	52.15	447,924.95	68.45	2,051.75	3.74	18,615.47	14.21	35.7	-16.59
2008	371,082.7	137.82	581,205.24	29.76	4,294.73	109.32	24,306.77	30.57	30.4	-14.85
2009	472,646.43	27.37	702,898.6	20.94	4,659.86	8.50	35,975.19	48.00	62.8	106.58
2010	640,418.98	35.50	875,935.55	24.62	5,832.26	25.16	70,053.21	94.73	41.7	-33.60
2011	636,422.9	-0.62	994,534.79	13.54	6,839.9	17.28	209,509.63	199.07	27.89	-33.12
2012	751,952.83	18.15	1,417,140.3	42.49	9,852.7	44.05	393,550.94	87.84	14.99	-46.25
2013	416,106.44	-44.66	1,581,639.6	11.61	17,387.6	76.48	661,023	67.96	18.72	24.88
2014	403,565.2	-3	2,244,225.5	41.89	27,874.4	60.31	907,166.25	37.24	71.7	283.01
2015	867,370.1	114.9	4,577,637.5	104	33,994.6	22	1,282,107.5	41.3	109.3	52.4

Note: *Repo trading* includes pledged repo trading and outright repo trading.
Sources: The People's Bank of China, Shanghai Stock Exchange and Shenzhen Stock Exchange.

Table 9 Bond Market, 2015

Unit: 100 million yuan

Month	Interbank bond market			Stock exchange market			OTC market	
	Spot trading	YoY change (%)	Interbank aggregate bond index	Spot trading	YoY change (%)	Stock exchange treasury bond index	Turnover	YoY change (%)
Jan.	43,021.8	124.72	115.98	3,479.6	108.21	146.67	55.4	3,720.69
Feb.	30,284.9	44.09	116.75	1,827.1	20.98	147.6	19.3	1,687.04
Mar.	52,824.6	71.91	114.34	2,411.2	20.14	147.97	2.0	25.00
Apr.	61,775.5	79.39	115.88	2,531.4	36.75	148.52	5.7	621.52
May	71,301.5	95.69	115.9	2,600.0	63.14	148.91	3.0	31.58
Jun.	70,346.8	109.61	115.82	2,535.8	23.80	149.64	1.9	-26.07
Jul.	90,183.9	146.52	116.5	3,837.4	54.38	150.3	1.9	-93.16
Aug.	81,629.6	138.88	117.04	3,295.8	57.30	150.91	1.4	-62.26
Sept.	76,583.0	91.97	117.16	3,011.7	33.33	151.62	3.3	-19.12
Oct.	77,123.4	110.97	118.18	1,978.5	-11.34	152.79	1.0	-65.52
Nov.	102,660.7	166.75	117.93	2,933.1	-4.21	153.09	12.1	-11.03
Dec.	109,634.6	157.66	119.68	3,553.2	-29.77	154.54	2.2	-77.78
Total	867,370.1	114.9	—	33,994.6	22	—	109.3	52.4

Note: *Spot trading* is valued using the full price. The *interbank aggregate bond index* is a clean price index.
Sources: The 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—2015

Unit: 100 million yuan

Year	Government debentures			Financial bonds				Corporate debentures							
	Treasury bonds	Local government bond	Sub-total	CDB and 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	Credit asset-backed securities	Government-backed agency bonds	Central bank bills	Total
2004	7,318.8	0.0	7,318.8	4,348.0	0.0	748.8	5,096.8	0.0	326.0	209.0	535.0	0.0	0.0	17,037.3	29,988.0
2005	7,042.0	0.0	7,042.0	6,051.7	29.0	1,036.3	7,117.0	1,424.0	654.0	0.0	2,078.0	41.8	0.0	27,882.0	44,160.8
2006	8,883.3	0.0	8,883.3	8,980.0	0.0	525.0	9,505.0	2,919.5	995.0	142.9	4,057.4	115.8	0.0	36,573.8	59,135.3
2007	23,483.4	0.0	23,483.4	10,931.9	0.0	972.7	11,904.6	3,349.1	1,720.0	407.3	5,476.4	178.1	0.0	40,721.3	81,763.8
2008	8,546.3	0.0	8,546.3	10,809.3	0.0	974.0	11,783.3	6,075.5	2,367.0	976.5	9,419.0	302.1	0.0	42,960.0	73,010.6
2009	16,213.6	2,000.0	18,213.6	11,678.1	0.0	3,071.0	14,749.1	11,509.7	4,252.0	715.0	16,476.7	0.0	0.0	39,740.0	89,179.4
2010	17,778.2	2,000.0	19,778.2	13,192.7	0.0	979.5	14,172.2	11,863.0	3,627.0	1,320.3	16,810.3	0.0	1,090.0	46,608.0	98,458.6
2011	15,397.9	2,000.0	17,397.9	19,972.7	0.0	3,528.5	23,501.2	18,503.2	2,473.5	1,707.4	22,684.1	0.0	1,000.0	14,140.0	78,723.2
2012	14,360.4	2,500.0	16,860.4	21,399.0	561.0	4,233.7	26,193.7	26,547.2	6,499.3	2,722.8	35,769.3	192.6	1,500.0	0.0	80,515.9
2013	16,945.0	3,500.0	20,445.0	20,760.3	2,995.9	1,321.0	25,077.2	28,357.9	4,752.3	4,081.4	37,191.6	157.7	1,900.0	5,362.0	90,133.5
2014	17,047.3	4,000.0	21,047.3	22,900.5	4,246.9	5,459.5	32,606.9	41,217.6	6,952.0	3,483.8	51,653.4	2,793.5	2,100.0	0.0	110,201.1
2015	19,905.4	38,350.6	58,256.0	25,790.2	3,515.6	6,295.6	35,601.4	53,715.6	3,431.0	12,981.5	70,128.1	4,056.4	2,400.0	0	170,441.9

Notes: 1. *Debt financing instruments of non-financial enterprises* includes commercial papers, super short-term commercial papers, medium-term notes, collective notes, private placement notes, collective notes issued by promising regional SMEs, asset-backed notes issued by non-financial enterprises, etc.
2. *Corporate bonds* includes corporate bonds, convertible bonds, detachable convertible bonds, SME private placement bonds, etc.
3. Treasury bond issuance for 2015 includes the 3 billion yuan of bonds issued by Korea's Ministry of Strategy and Finance.

Source: People's Bank of China.

Table 11 Bond Custody, 2006—2015

Unit: 100 million yuan

Year	Government debentures: Treasury bonds	Government debentures: Local government bonds	Government debentures: Sub-total	Financial bonds: CDB and policy bank bonds	Financial bonds: Short-term financing bonds of securities companies	Financial bonds: Other financial bonds	Financial bonds: Sub-total	Corporate debentures: Debt financing instruments of non-financial enterprises	Corporate debentures: Enterprise bonds	Corporate debentures: Corporate bonds	Corporate debentures: Sub-total	Credit asset-backed securities	Interbank CDs	Government-backed agency bonds and others	Central bank bills	Interbank custody	Exchange custody	Total custody
2006	29,048	0	29,048	22,836	0	2,552	25,388	2,667	2,832	288	5,786	188	0	30	32,300	88,910	3,830	92,740
2007	46,503	0	46,503	28,784	0	3,486	32,270	3,203	4,422	1,131	8,756	324	0	30	36,587	120,102	4,368	124,470
2008	48,753	0	48,753	36,720	0	4,255	40,975	5,875	6,803	539	13,218	551	0	30	48,121	148,100	3,548	151,648
2009	55,411	2,000	57,411	44,498	0	6,454	50,952	13,196	10,971	1,135	25,301	399	0	40	42,326	172,476	3,954	176,430
2010	62,628	4,000	66,628	51,604	0	6,662	58,266	20,271	14,511	3,584	38,366	182	0	1,130	40,909	199,019	6,462	205,481
2011	67,839	6,000	73839	64,778	0	9,785	74,563	29,047	16,799	6,023	51,869	95	0	2,130	21,290	214,260	9,526	223,786
2012	74,236	6,500	80,736	78,582	295	13,126	92,003	40,327	19,310	7,441	67,078	269	0	8,532	13,440	250,014	12,044	262,058
2013	83,165	8,615	91,780	88,720	810	13,535	103,064	51,483	23,359	10,553	85,394	354	340	10,067	5,522	277,128	19,377	296,505
2014	91,450	11,624	103,073	99,874	1,134	17,213	118,221	67,901	29,513	12,335	109,749	2,751	5,995.3	11,706	4,282	329,803	25,975	355,778
2015	101,520	48,255	149,775	110,053	436	22,747	133,236	85,964	31,910	24,881	142,756	5,383	30,274	13,285	4,282	439,255	39,735	478,990

Notes: 1. *Debt financing instruments of non-financial enterprises* includes commercial papers, super short-term commercial papers, medium-term notes, collective notes, private placement notes, collective notes issued by promising regional SMEs, asset-backed notes issued by non-financial enterprises, etc.

2. *Corporate bonds* includes corporate bonds, convertible bonds, detachable convertible bonds, SME private placement bonds, etc.

3. Treasury bond custody for 2015 includes the 3 billion yuan of bonds issued by Korea's Ministry of Strategy and Finance.

Source: People’s Bank of China.

Table 12 Issuance and Redemption of Treasury Bonds, 2006—2015

Unit: 100 million yuan

Year	Issuance	Redemption	End-period outstanding
2006	8,883.3	4,163	29,048
2007	23,483.4	4,090	46,503
2008	8,546.3	4,930	48,753
2009	16,213.6	7,570	55,411
2010	17,778.2	8,605	62,628
2011	15,397.9	8,578	67,839
2012	14,360.4	6,340	74,236
2013	16,945.0	6,606	83,165
2014	17,047.3	7,140	91,450
2015	19,905.4	9,802	101,520

Note: *Redemption* includes redemption before maturity and at maturity.
Sources: The People's Bank of China and China Central Depository & Clearing Co., Ltd..

Table 13 Number of Interbank Bond Market Participants, 2014—2015

Time	Domestic participants																Overseas participants				Tota
	Incorporated entities							Incorporated entities													
	Depository financial institutions	Other banking financial institutions	Securities financial institutions	Insurance financial institutions	Non-financial institutions	Other	Sub-total	Securities investment funds	Corporate annuities	Social Security Fund	Insurance products	Trust products	Specific asset management portfolios of fund companies	Asset management schemes of securities companies	Wealth management products of banks	Other	Sub-total	Three types of institutions	QFII	RQFII	Sub-total	
2014	1,088	158	169	148	278	7	1,848	1,556	1,275	105	145	569	176	560	48	0	4,434	107	13	60	180	6,462
Jan. 2015	1,095	159	168	148	278	7	1,855	1,584	1,288	105	147	568	185	558	48	0	4,483	109	15	64	188	6,526
Feb. 2015	1,099	159	167	148	278	7	1,858	1,595	1,295	105	148	567	242	583	48	0	4,583	110	12	66	188	6,629
Mar. 2015	1,113	162	167	148	278	7	1,875	1,631	1,631	105	150	573	326	642	48	0	5,106	113	12	66	191	7,172
Apr. 2015	119	164	167	148	278	7	1,883	1,665	1,353	105	161	562	420	715	48	0	5,029	115	8	41	164	7,076
May 2015	1,138	165	168	148	278	7	1,904	1,713	1,364	105	179	566	481	801	48	0	5,257	119	14	39	172	7,,333
Jun. 2015	1,160	167	167	148	278	7	1,927	1,784	1,376	105	209	578	538	867	48	0	5,505	123	18	56	197	7,629
Jul. 2015	1,186	173	167	148	279	7	1,960	1,920	1,390	105	225	607	618	971	48	0	5,884	127	34	109	270	8,114
Aug. 2015	1,211	173	170	148	279	7	1,988	1,927	1,403	105	246	624	749	1,100	48	0	6,247	130	34	118	282	8,517
Sept. 2015	1,233	175	171	148	279	7	2,013	2,003	1,412	105	260	638	849	1,153	48	0	6,468	133	34	124	291	8,772
Oct. 2015	1,257	178	172	148	279	7	2,041	2,027	1,314	105	273	646	935	1,218	48	0	6,668	132	34	126	292	9,001
Nov. 2015	1,277	180	171	150	279	7	2,064	2,057	1,420	105	296	656	1,031	1,299	48	0	6,912	132	36	130	298	9,274
Dec. 2015	1,302	182	171	152	280	7	2,094	2,151	1,431	105	311	666	1,140	1,388	48	0	7,240	138	38	132	308	9,642

Source: China Central Depository & Clearing Co., Ltd..

Table 14 Interbank Bond Market Settlement Agents, 2015

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

Source: National Association of Financial Market Institutional Investors.

Table 15 Interbank Bond Market Makers, 2015

China Development Bank	Bank of China
China Construction Bank	CITIC Securities Co., Ltd.
China Merchants Bank	China Minsheng Bank
China CITIC Bank	China Everbright Bank
Bank of Beijing	Bank of Hangzhou
Evergrowing Bank	Agricultural Bank of China
Bank of Shanghai	Shanghai Pudong Development Bank
Hankou Bank	China International Capital Corp., Ltd.
Bank of Communications	Industrial Bank
Bank of Nanjing	Guotai Junan Securities Co., Ltd.
Industrial and Commercial Bank of China	China Guangfa Bank
JPMorgan Chase Bank (China) Co., Ltd.	Standard Chartered Bank (China) Ltd.
Citibank (China) Co., Ltd.	

Source: China Foreign Exchange Trade System.

Table 16 Participating Banks in OTC Bond Trading, 2015

Industrial and Commercial Bank of China	China Merchants Bank
Agricultural Bank of China	China Minsheng Bank
Bank of China	Bank of Beijing
China Construction Bank	Bank of Nanjing

Source: The People's Bank of China.

Table 17 Primary Dealers for Open Market Operations, 2015

Bank of China	Industrial and Commercial Bank of China
China Construction Bank	Shanghai Pudong Development Bank
Agricultural Bank of China	Ping An Bank
Bank of Communications	China Development Bank
China CITIC Bank	Industrial Bank
China Minsheng Bank	China Guangfa Bank
China Merchants Bank	China Everbright Bank
Bank of Hangzhou	Postal Savings Bank of China
Bank of Zhengzhou	Bank of Tianjin
Qishang Bank	Bank of Guangzhou
Xiamen Bank	Bank of Dalian
Bank of Shanghai	Bank of Jiangsu
Bank of Ningbo	Bank of Nanjing
Fudian Bank	Fujian Haixia Bank
Bank of Xi'an	Harbin Bank
Bank of Luoyang	Huishang Bank
Bank of Hebei	Bank of Beijing
Evergrowing Bank	Bank of Guiyang

Source: The People's Bank of China.

Table 18 Stock Market Statistics, 1997—2015

Year	Number of listed companies	Listed share capital (100 million shares)	Market cap (100 million yuan)	Free-float Market cap (100 million yuan)	Total capital raised on the A-share market (100 million yuan)	Turnover (100 million yuan)	Average turnover ratio (%)		Average P/E ratio (%)		Investor accounts (10,000)
							Shanghai	Shenzhen	Shanghai	Shenzhen	
1997	745	1,942.7	17,529.2	5,204.4	—	30,721.8	701.8	817.4	39.9	39.9	3,480.3
1998	851	2,526.8	19,505.6	5,745.6	—	23,527.3	453.6	406.6	34.4	30.6	4,259.9
1999	949	3,089.0	26,471.2	8,214.0	—	31,319.6	471.5	424.5	38.1	36.3	4,810.6
2000	1,088	3,791.7	48,090.9	16,087.5	—	60,826.6	492.9	509.1	58.2	56.0	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	37.0	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	46,8728.6	—	—	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	531,304.2	417,925.4	8,329.89	182,388.19	—	—	17.63	52.75	21,477.57

Notes: 1. *Total capital raised on the A-share market* excludes capital raised by listed companies on the bond market via convertible bonds and detachable convertible bonds, etc..
2. *Average turnover ratio* covers A shares and B shares.
3. *Average P/E ratio* refers to static P/E ratios.
4. *Investor accounts* is year-end valid accounts.
5. Some statistics have been adjusted according to latest CSRC releases.

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

Table 19 Change in Stock Market Turnover and Indices, 1997—2015

Unit: 100 million yuan

Year	Turnover	Average daily turnover	SSE composite index				SZSE component index			
			Open	High	Low	Close	Open	High	Low	Close
1997	30,721.8	126.42	914.06	1,510.18	870.18	1,194.1	326.33	517.91	305.81	381.29
1998	23,527.3	97.1	1,200.95	1,422.98	1,043.02	1,146.7	382.85	441.04	317.1	343.85
1999	31,319.6	131.04	1,144.89	1,756.18	1,047.83	1,366.58	343.29	525.14	310.65	402.18
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	3,277.139	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	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	123,540.72	3,258.63	5,178.19	2,850.71	3,539.18	1,419.44	3,156.96	1,408.99	2,308.91

Note: Some statistics have been adjusted according to latest CSRC releases.
Sources: China Securities Regulatory Commission, Shanghai Stock Exchange and Shenzhen Stock Exchange.

Table 20 Market Makers for RMB Trading in the Interbank Spot Foreign Exchange Market

Industrial and Commercial Bank of China	Agricultural Bank of China
Bank of China	China Construction Bank
Bank of Communications	China CITIC Bank
China Merchants Bank	China Everbright Bank
Huaxia Bank	China Guangfa Bank
Ping An Bank	Industrial Bank
China Minsheng Bank	China Development Bank
Postal Savings Bank of China	Bank of Shanghai
Bank of Nanjing	Bank of Ningbo
BNP Paribas (China) Ltd.	Shanghai Pudong Development Bank
DBS Bank (China) Ltd.	Bank of America, Shanghai Branch
HSBC Bank (China) Co., Ltd.	Bank of Montreal (China) Co., Ltd.
Citibank (China) Co., Ltd.	Standard Chartered Bank (China) Ltd.
Sumitomo Mitsui Banking Corp. (China) Ltd.	Deutsche Bank (China) Co., Ltd.
Mizuho Bank (China), Ltd.	Bank of Tokyo-Mitsubishi UFJ (China), Ltd.

Source: China Foreign Exchange Trade System.

Table 21 Foreign Exchange Market and Foreign Exchange Reserves, 1994—2015

Units: USD100 million, yuan

Year	Foreign exchange reserves	USD100/CNY	EUR100/CNY	JPY/CNY	HKD100/CNY	GBP100/CNY	CNY100/MYR (ringgit)	CNY100/RUB (ruble)	AUD100/CNY	CAD100/CNY	NZD100/CNY	SGD100/CNY	CHF100/CNY
1994	516.2	844.91	—	7.78	112.66	—	—	—	—	—	—	—	—
1995	735.97	831.79	—	8.0703	107.6	—	—	—	—	—	—	—	—
1996	1,050.49	829.92	—	7.1613	107.19	—	—	—	—	—	—	—	—
1997	1,398.9	827.98	—	6.3627	106.81	—	—	—	—	—	—	—	—
1998	1,449.59	827.87	—	7.1719	106.78	—	—	—	—	—	—	—	—
1999	1,546.75	827.93	—	8.0933	106.51	—	—	—	—	—	—	—	—
2000	1,655.74	827.81	—	7.2422	106.06	—	—	—	—	—	—	—	—
2001	2,121.65	827.66	—	6.3005	106.06	—	—	—	—	—	—	—	—
2002	2,864.07	827.73	863.6	6.9035	106.11	—	—	—	—	—	—	—	—
2003	4,032.51	827.69	1,033.83	7.7263	106.57	—	—	—	—	—	—	—	—
2004	6,099.32	827.65	1,126.27	7.9701	106.37	—	—	—	—	—	—	—	—
2005	8,188.72	807.02	957.97	6.8716	104.03	—	—	—	—	—	—	—	—
2006	10,663.44	780.87	1,026.65	6.563	100.467	1,532.32	—	—	—	—	—	—	—
2007	15,282.49	730.46	1,066.69	6.4064	93.638	1,458.07	—	—	—	—	—	—	—
2008	19,460.3	683.46	965.9	7.565	88.189	987.98	—	—	—	—	—	—	—
2009	23,992.0	682.82	979.71	7.3782	88.048	1,097.8	—	—	—	—	—	—	—
2010	28,473.38	662.27	880.65	8.126	85.093	1,021.82	46.649	462.05	—	—	—	—	—
2011	31,811	630.09	816.25	8.1103	81.07	971.16	50.279	508.6	640.93	617.77	—	—	—
2012	33,116	628.55	831.76	7.3049	81.085	1,016.11	48.865	485.28	653.63	631.84	—	—	—
2013	38,213	609.69	841.89	5.7771	78.623	1,005.56	54.141	539.85	543.01	572.59	—	—	—
2014	38,430	611.9	745.56	5.1371	78.887	954.37	56.737	905.36	501.74	527.55	480.34	463.96	—
2015	33,303	649.36	709.52	5.3875	83.778	961.5	66.051	1,131.0	472.76	468.14	444.26	458.75	640.18

Note: Listed in the table are central parity rates on the last trading day of the year.
Sources: The People's Bank of China and State Administration of Foreign Exchange.

Table 22 Futures Market Trading, 1993—2015

Units: 100 million yuan, 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	100,565.3	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	1,264,695.8	186,827.38	1,410,066.21	19,354.93
2014	1,279,712.5	228,343.25	1,640,169.73	21,758.1
2015	1,356,307.36	323,715.31	4,173,852.33	34,052.95

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

Table 23 Gold Market Trading, 2003—2015

Units: 100 million yuan, 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

Source: Shanghai Gold Exchange.

Table 24 OTC Gold Businesses of Commercial Banks, 2007—2015

Business type		Account gold		Physical gold			Others								
Product (Units)		USD-denominated gold (10,000 oz, USD100 million)	RMB-denominated gold (tonne, 100 million yuan)	Proprietary (tonne, 100 million yuan)	Agent (tonne, 100 million yuan)	Gold accumulation and regular investment (tonne, 100 million yuan)	Gold leasing (tonne, 100 million yuan)	Gold leasing (tonne, 100 million yuan)	Gold pledging (tonne, 100 million yuan)	Onshore USD gold forwards (10,000 oz, USD100 million)	Onshore USD gold options (10,000 oz, USD100 million)	Onshore USD gold swaps (10,000 oz, USD100 million)	Onshore RMB gold forwards (tonne, 100 million yuan)	Onshore RMB gold swaps (tonne, 100 million yuan)	Onshore RMB gold options (tonne, 100 million yuan)
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

Notes: 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 25 Interest Rate Derivatives Trading, 2006—2015

Unit: 100 million yuan

Year	Interest rate swaps		Bond forwards		Forward rate agreements	
	Number of trades	Notional principal amount	Number of trades	Notional principal amount	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
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
2013	24,409	27,277.8	1	1.01	1	0.5
2014	43,009	40,347.2	—	—	—	—
2015	64,557	82,304.1	83	19.6	—	—

Source: China Foreign Exchange Trade System.